



# EPB PLASTERBOARD & FIBRE CEMENT FIRE RATED SYSTEMS

May 2026

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## EPB® Plasterboard & Fibre Cement Fire Rated Systems Manual

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All past and future references to Elephant Plasterboard and EPB® Plasterboard are interchangeable.

### Product Name Change : EPB MultiSmart® Range renamed to EPB BraceSmart®/NoiseSmart®

The 10mm & 13mm EPB MultiSmart® range will now be referred to as 10mm & 13mm EPB BraceSmart®/NoiseSmart®, reflecting its dual performance in bracing and noise control applications. In addition this product will feature a new End tape for ease of identification. This change is a part of our ongoing effort to better align product names with their function. Please note that all product specifications, performance characteristics and installation methods remains unchanged. All past and future references of EPB MultiSmart® are interchangeable with EPB BraceSmart®/NoiseSmart® and vice versa.

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## External Fire Rated Walls - Timber Frame

| System Number                                                                                | Lining Suffix | FRR      | Insulation      | Noise Control<br>STC | Lining Requirements                                                                                                                        | Page |
|----------------------------------------------------------------------------------------------|---------------|----------|-----------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>EPB Plasterboard &amp; James Hardie Linea™ Weatherboard</b>                               |               |          |                 |                      |                                                                                                                                            |      |
| <a href="#">EJL1TL30</a>                                                                     | -F10          | 30/30/30 | R2.2 glass wool | 46                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Linea™ Weatherboard to External side                                              | 30   |
| <a href="#">EJL1TL60</a>                                                                     | -F13          | 60/60/60 | R2.2 glass wool | 47                   | 1 x 13mm EPB FireSmart on Internal side<br>James Hardie Linea™ Weatherboard to External side                                               | 31   |
| <b>EPB Plasterboard &amp; James Hardie Oblique™ Weatherboard</b>                             |               |          |                 |                      |                                                                                                                                            |      |
| <a href="#">EJOH1TL30</a>                                                                    | -F10          | 30/30/30 | R2.2 glass wool | 46                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard horizontal to External side                                 | 32   |
| <a href="#">EJOv1TL30</a>                                                                    | -F10          | 30/30/30 | R2.2 glass wool | 46                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard vertical to External side                                   | 33   |
| <a href="#">EJOH1TL60</a>                                                                    | -F13          | 60/60/60 | R2.2 glass wool | 47                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard horizontal to External side                                 | 34   |
| <a href="#">EJOv1TL60</a>                                                                    | -F13          | 60/60/60 | R2.2 glass wool | 47                   | 1 x 13mm EPB FireSmart on Internal side<br>James Hardie Oblique™ Weatherboard vertical to External side                                    | 35   |
| <b>EPB Plasterboard &amp; James Hardie™ Plank Weatherboard</b>                               |               |          |                 |                      |                                                                                                                                            |      |
| <a href="#">EJW1TL30</a>                                                                     | -F10          | 30/30/30 | R2.2 glass wool | 45                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie™ Plank Weatherboard to External side                                              | 36   |
| <a href="#">EJW1TL60</a>                                                                     | -F13          | 60/60/60 | Hardie™ Mineral | 46                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie™ Plank Weatherboard to External side                                              | 37   |
| <b>EPB Plasterboard &amp; James Hardie Stria™ Cladding</b>                                   |               |          |                 |                      |                                                                                                                                            |      |
| <a href="#">EJSh1TL30</a>                                                                    | -F10          | 30/30/30 | R2.2 glass wool | 46                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding horizontal to External side                                       | 38   |
| <a href="#">EJSv1TL30</a>                                                                    | -F10          | 30/30/30 | R2.2 glass wool | 46                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding vertical to External side                                         | 39   |
| <a href="#">EJSh1TL60</a>                                                                    | -F13          | 60/60/60 | R2.2 glass wool | 47                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding horizontal to External side                                       | 40   |
| <a href="#">EJSv1TL60</a>                                                                    | -F13          | 60/60/60 | R2.2 glass wool | 47                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding vertical to External side                                         | 41   |
| <b>EPB Plasterboard &amp; James Hardie Stria™ Cladding &amp; RAB™ Board with CLD Battens</b> |               |          |                 |                      |                                                                                                                                            |      |
| <a href="#">EJRS1TL30</a>                                                                    | -F10          | 30/30/30 | R2.2 glass wool | 46                   | 1 x 10mm EPB FireSmart on Internal side<br>James Hardie Stria™ Cladding and RAB™ Board with CLD™ Structural Cavity Batten to External side | 42   |
| <a href="#">EJRS1TL60</a>                                                                    | -F13          | 60/60/60 | Hardie™ Mineral | 47                   | 1 x 13mm EPB FireSmart on Internal side<br>James Hardie Stria™ Cladding and RAB™ Board with CLD™ Structural Cavity Batten to External side | 43   |
| <b>EPB Plasterboard &amp; James Hardie Hardie™ Flex Sheet</b>                                |               |          |                 |                      |                                                                                                                                            |      |
| <a href="#">EJF1TL30</a>                                                                     | -F10          | 30/30/30 | R2.2 glass wool | 42                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Hardie™ Flex Sheet to External side                                               | 44   |
| <a href="#">EJF1TL60</a>                                                                     | -F13          | 60/60/60 | Hardie™ Mineral | 43                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Hardie™ Flex Sheet to External side                                               | 45   |





## External Fire Rated Walls - Timber Frame

| System Number                                                                                    | Lining Suffix | FRR      | Insulation      | Noise Control<br>STC | Lining Requirements                                                                                                                     | Page |
|--------------------------------------------------------------------------------------------------|---------------|----------|-----------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>EPB Plasterboard &amp; James Hardie Axon™ Panel</b>                                           |               |          |                 |                      |                                                                                                                                         |      |
| <a href="#">EJA1TL30</a>                                                                         | -F10          | 30/30/30 | R2.2 glass wool | 41                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel to External side                                                   | 46   |
| <a href="#">EJA1TL60</a>                                                                         | -F13          | 60/60/60 | Hardie™ Mineral | 42                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel to External side                                                   | 47   |
| <b>EPB Plasterboard &amp; James Hardie Axon™ Panel &amp; RAB™ Board with CLD Batts</b>           |               |          |                 |                      |                                                                                                                                         |      |
| <a href="#">EJRA1TL30</a>                                                                        | -F10          | 30/30/30 | R2.2 glass wool | 45                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel and RAB™ Board with CLD™ Structural Cavity Batten to External side | 48   |
| <a href="#">EJRA1TL60</a>                                                                        | -F13          | 60/60/60 | Hardie™ Mineral | 46                   | 1 x 13mm EPB FireSmart® on One side<br>James Hardie Axon™ Panel and RAB™ Board with CLD™ Structural Cavity Batten to External side      | 49   |
| <b>EPB Plasterboard &amp; James Hardie ExoTec™ Facade Panel &amp; RAB™ Board</b>                 |               |          |                 |                      |                                                                                                                                         |      |
| <a href="#">EJRX1TL30</a>                                                                        | -F10          | 30/30/30 | R2.2 glass wool | 47                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie ExoTec™ Facade Panel and RAB™ Board with Top hat system to External side       | 50   |
| <a href="#">EJRX1TL60</a>                                                                        | -F13          | 60/60/60 | Hardie™ Mineral | 48                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie ExoTec™ Facade Panel and RAB™ Board with Top hat system to External side       | 51   |
| <b>EPB Plasterboard &amp; James Hardie RAB™ Board &amp; a Weathertight Cladding (See Note 1)</b> |               |          |                 |                      |                                                                                                                                         |      |
| <a href="#">EJRN1TL30</a>                                                                        | -F10          | 30/30/30 | R2.2 glass wool | 42                   | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side                       | 52   |
| <a href="#">EJRN1TL60</a>                                                                        | -F13          | 60/60/60 | Hardie™ Mineral | 42                   | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side                       | 53   |
| <a href="#">EJRN2TL60</a>                                                                        | -F20          | 60/60/60 | Hardie™ Mineral | 46                   | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side                       | 54   |
|                                                                                                  | -S26          | 60/60/60 | Hardie™ Mineral | 47                   | 2 x 13mm EPB® Standard on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side                        | 54   |
|                                                                                                  | -M20          | 60/60/60 | Hardie™ Mineral | 47                   | 2 x 10mm EPB BraceSmart®/NoiseSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side          | 54   |

**Note1 :** It is important to consider that the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents. Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.



## External Fire Rated Walls - Steel Frame

| System Number | Lining Suffix | FRR | Insulation | Noise Control | Lining Requirements | Page |
|---------------|---------------|-----|------------|---------------|---------------------|------|
|               |               |     |            | STC           |                     |      |

### EPB Plasterboard & RAB™ board with Selected James Hardie Fibre Cement Cladding

|                           |      |          |                 |         |                                                                                                                                       |    |
|---------------------------|------|----------|-----------------|---------|---------------------------------------------------------------------------------------------------------------------------------------|----|
| <a href="#">EJRH1SL30</a> | -F16 | 30/30/30 | Hardie™ Mineral | 42 - 47 | 1 x 16mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with Selected James Hardie Fibre Cement cladding to External side | 56 |
| <a href="#">EJRH2SL30</a> | -F20 | 30/30/30 | Hardie™ Mineral | 47 - 53 | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with Selected James Hardie Fibre Cement cladding to External side | 58 |
| <a href="#">EJRH2SL60</a> | -F26 | 60/60/60 | Hardie™ Mineral | 51 - 54 | 2 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with Selected James Hardie Fibre Cement cladding to External side | 60 |

### EPB Plasterboard & James Hardie RAB™ Board & a Weathertight Cladding (See Note 1)

|                           |      |          |                 |    |                                                                                                                   |    |
|---------------------------|------|----------|-----------------|----|-------------------------------------------------------------------------------------------------------------------|----|
| <a href="#">EJRN1SL30</a> | -F16 | 30/30/30 | Hardie™ Mineral | 43 | 1 x 16mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side | 62 |
| <a href="#">EJRN2SL30</a> | -F20 | 30/30/30 | Hardie™ Mineral | 47 | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side | 64 |
| <a href="#">EJRN2SL60</a> | -F26 | 60/60/60 | Hardie™ Mineral | 49 | 2 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side | 66 |

## Internal Fire Rated Walls - Timber Frame

| System Number | Lining Suffix | FRR | Insulation | Noise Control | Lining Requirements | Page |
|---------------|---------------|-----|------------|---------------|---------------------|------|
|               |               |     |            | STC           |                     |      |

### EPB Plasterboard & James Hardie Villaboard™ Lining

|                          |      |          |                 |    |                                                                                |    |
|--------------------------|------|----------|-----------------|----|--------------------------------------------------------------------------------|----|
| <a href="#">EJV1TL30</a> | -F10 | 30/30/30 | R2.2 glass wool | 42 | 1 x 10mm EPB FireSmart® one side<br>James Hardie Villaboard™ Lining other side | 69 |
| <a href="#">EJV1TL60</a> | -F13 | 60/60/60 | Hardie™ Mineral | 43 | 1 x 13mm EPB FireSmart® one side<br>James Hardie Villaboard™ Lining other side | 70 |

## Floor/Ceilings - Timber Frame

| System Number | Lining Suffix | FRR | Insulation | Noise Control |     | Lining Requirements to underside of Frame | Page |
|---------------|---------------|-----|------------|---------------|-----|-------------------------------------------|------|
|               |               |     |            | STC           | IIC |                                           |      |

### EPB Plasterboard & James Hardie Secura™ Interior Flooring

|                          |      |          |                 |    |    |                                               |    |
|--------------------------|------|----------|-----------------|----|----|-----------------------------------------------|----|
| <a href="#">EJS1FC30</a> | -F13 | 30/30/30 | R1.8 glass wool | 45 | 33 | 1 x 13mm EPB FireSmart® to underside of frame | 72 |
| <a href="#">EJS1FC60</a> | -F16 | 60/60/60 | n/a             | 46 | 33 | 1 x 16mm EPB FireSmart® to underside of frame | 73 |

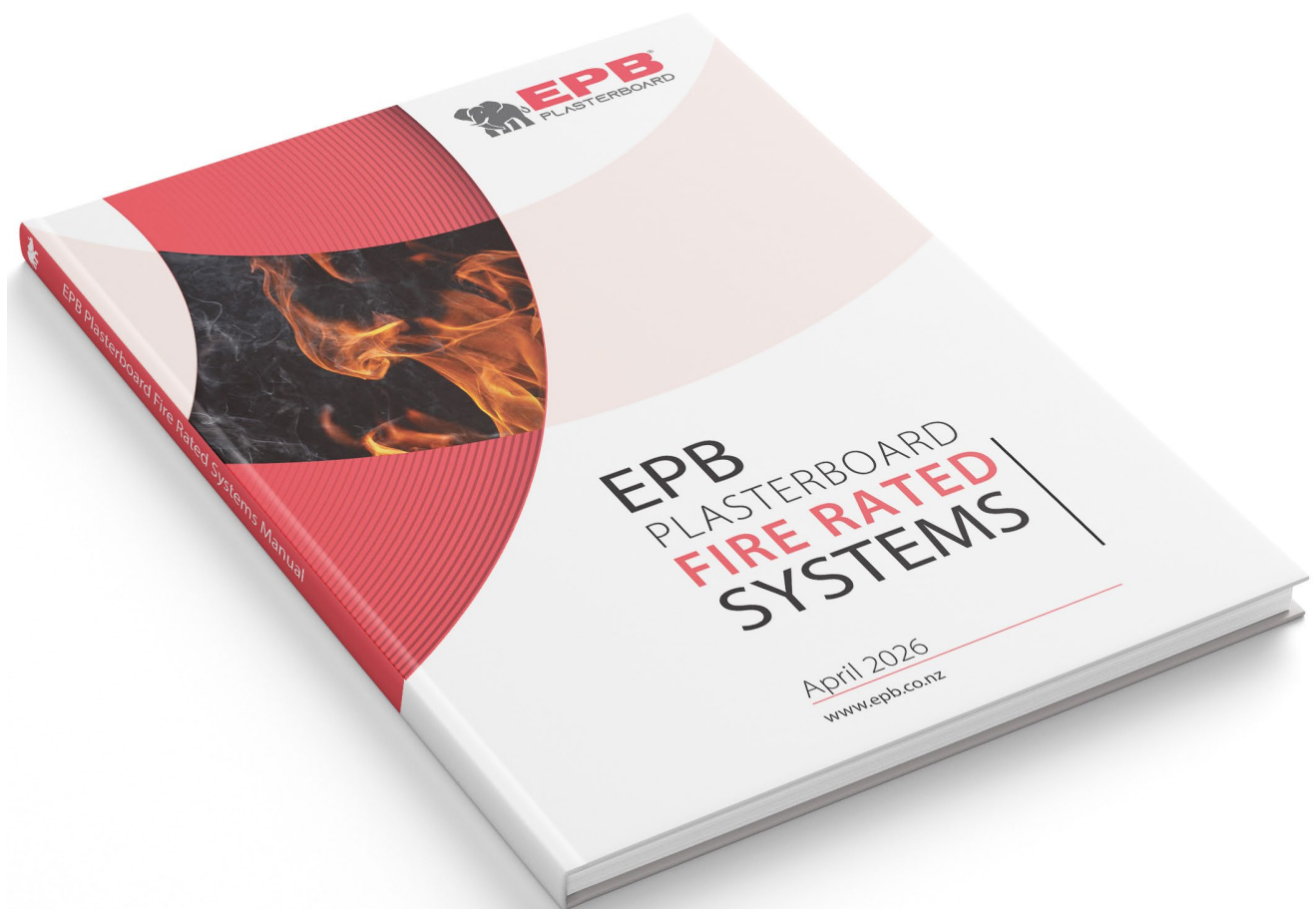
## Full Intertenancy - Floating Floor/Ceilings - Timber Frame

| System Number | Lining Suffix | FRR | Insulation | Noise Control |     | Lining Requirements to underside of Frame | Page |
|---------------|---------------|-----|------------|---------------|-----|-------------------------------------------|------|
|               |               |     |            | STC           | IIC |                                           |      |

### EPB Plasterboard & Floating James Hardie Secura™ Interior Flooring

|                           |       |          |                 |    |       |                                                                     |    |
|---------------------------|-------|----------|-----------------|----|-------|---------------------------------------------------------------------|----|
| <a href="#">EFJ2DFA60</a> | -FS26 | 60/60/60 | R1.8 glass wool | 67 | 57-76 | 1 x 13 EPB FireSmart® And<br>1 x 13 EPB® Standard under the battens | 76 |
|                           | -F26  | 60/60/60 | R1.8 glass wool | 68 | 57-77 | 2 x 13 EPB FireSmart® under the battens                             | 76 |





For Non-Acoustic Fire Rated system options, go to

# EPB Plasterboard Fire Rated Systems Manual

## Fire Rated Walls

| System Number                    | Lining Suffix | FRR         | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                    | Page                                                                                                 |  |
|----------------------------------|---------------|-------------|----------------------|---------------|----|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|
|                                  |               |             |                      | STC           | Rw |                                                                                        |                                                                                                      |  |
| Timber Frame Walls - Two Way FRR |               |             |                      |               |    |                                                                                        |                                                                                                      |  |
| E2TL30                           | -S20          | 30/30/30    | LB                   | 37            | 36 | 1 x 10mm EPB® Standard each side                                                       | Please refer to the EPB Plasterboard Fire Rated Systems Manual for these System Specification sheets |  |
|                                  | -F20          | 30/30/30    | LB                   | 37            | 36 | 1 x 10mm EPB FireSmart® each side                                                      |                                                                                                      |  |
|                                  | -S26          | 30/30/30    | LB                   | 37            | 36 | 1 x 13mm EPB® Standard each side                                                       |                                                                                                      |  |
| E4TL45                           | -S40          | 45/45/45    | LB                   | 42            | 41 | 2 x 10mm EPB® Standard each side                                                       |                                                                                                      |  |
| E4T60                            | -S40          | -/60/60     | NLB                  | 42            | 41 | 2 x 10mm EPB® Standard each side                                                       |                                                                                                      |  |
| E2TL60                           | -F26          | 60/60/60    | LB                   | 38            | 37 | 1 x 13mm EPB FireSmart® each side                                                      |                                                                                                      |  |
| E4TL60                           | -F40          | 60/60/60    | LB                   | 42            | 41 | 2 x 10mm EPB FireSmart® each side                                                      |                                                                                                      |  |
|                                  | -S46          | 60/60/60    | LB                   | 42            | 41 | 1 x 10mm EPB® Standard and 1 x 13mm EPB® Standard each side                            |                                                                                                      |  |
|                                  | -S52          | 60/60/60    | LB                   | 43            | 42 | 2 x 13mm EPB® Standard each side                                                       |                                                                                                      |  |
| E2TL75                           | -F32          | 75/75/75    | LB                   | 38            | 37 | 1 x 16mm EPB FireSmart® each side                                                      |                                                                                                      |  |
| E4T90                            | -FS52         | -/90/90     | NLB                  | 43            | 42 | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard each side                           |                                                                                                      |  |
| E4TL90                           | -F52          | 90/90/90    | LB                   | 45            | 44 | 2 x 13mm EPB FireSmart® each side                                                      |                                                                                                      |  |
| E4T105                           | -F52          | -/105/105   | NLB                  | 44            | 43 | 2 x 13mm EPB FireSmart® each side                                                      |                                                                                                      |  |
| E4T120                           | -F58          | -/120/120   | NLB                  | 46            | 45 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® each side                          |                                                                                                      |  |
| E6TL120                          | -F78          | 120/120/120 | LB                   | 44            | 43 | 3 x 13mm EPB FireSmart® each side                                                      |                                                                                                      |  |
| EBV1TL30                         | -F10          | 30/30/30    | LB                   | 46            | 45 | 1 x 10mm EPB FireSmart® one side<br>Brick Veneer other side                            |                                                                                                      |  |
|                                  | -S13          | 30/30/30    | LB                   | 46            | 45 | 1 x 13mm EPB® Standard one side<br>Brick Veneer other side                             |                                                                                                      |  |
| EBV1TL60                         | -F13          | 60/60/60    | LB                   | 46            | 45 | 1 x 13mm EPB FireSmart® one side<br>Brick Veneer other side                            |                                                                                                      |  |
| EGW1TL30                         | -F10          | 30/30/30    | LB                   | 37            | 36 | 1 x 10mm EPB FireSmart® on internal side<br>1 x 10mm GIB Weatherline® to external side |                                                                                                      |  |
| EGW1TL60                         | -F13          | 60/60/60    | LB                   | 38            | 37 | 1 x 13mm EPB FireSmart® on internal side<br>1 x 13mm GIB Weatherline® to external side |                                                                                                      |  |
| Steel Frame Walls - Two Way FRR  |               |             |                      |               |    |                                                                                        |                                                                                                      |  |
| E2SL15                           | -S26          | 15/15/15    | LB                   | 35            | 34 | 1 x 13mm EPB® Standard each side                                                       |                                                                                                      |  |
| E2S30                            | -S26          | -/30/30     | NLB                  | 35            | 34 | 1 x 13mm EPB® Standard each side                                                       |                                                                                                      |  |
| E2SL30                           | -M26          | 30/30/30    | LB                   | 37            | 36 | 1 x 13mm EPB FireSmart® each side                                                      |                                                                                                      |  |
|                                  | -F32          | 30/30/30    | LB                   | 37            | 36 | 1 x 16mm EPB FireSmart® each side                                                      |                                                                                                      |  |
| E4SL30                           | -F40          | 30/30/30    | LB                   | 43            | 42 | 2 x 10mm EPB FireSmart® each side                                                      |                                                                                                      |  |



## Fire Rated Walls

| System Number                                                      | Lining Suffix | FRR       | Load Bearing Ability | Noise Control |    | Lining Requirements                                          | Page                                 |
|--------------------------------------------------------------------|---------------|-----------|----------------------|---------------|----|--------------------------------------------------------------|--------------------------------------|
|                                                                    |               |           |                      | STC           | Rw |                                                              |                                      |
| E4SL30                                                             | -S52          | 30/30/30  | LB                   | 43            | 42 | 2 x 13mm EPB® Standard each side                             | Please refer to the EPB Plasterboard |
| E2S60                                                              | -F26          | -/60/60   | NLB                  | 37            | 36 | 1 x 13mm EPB FireSmart® each side (requires wall insulation) |                                      |
| E4S60                                                              | -S52          | -/60/60   | NLB                  | 45            | 44 | 2 x 13mm EPB® Standard each side                             |                                      |
| E4SL60                                                             | -F52          | 60/60/60  | LB                   | 46            | 45 | 2 x 13mm EPB FireSmart® each side                            |                                      |
| E2S75                                                              | -F32          | -/75/75   | NLB                  | 38            | 37 | 1 x 16mm EPB FireSmart® each side                            |                                      |
| E4S90                                                              | -M46          | -/90/90   | NLB                  | 45            | 44 | 1 x 10mm and 1 x 13mm EPB BraceSmart®/NoiseSmart® each side  |                                      |
| E4SL90                                                             | -F64          | 90/90/90  | LB                   | 47            | 46 | 2 x 16mm EPB FireSmart® each side                            |                                      |
| E4S120                                                             | -F52          | -/120/120 | NLB                  | 45            | 44 | 2 x 13mm EPB FireSmart® each side                            |                                      |
| E4S120                                                             | -F58          | -/120/120 | NLB                  | 46            | 45 | 1 x 16mm EPB FireSmart® and 1 x 13mm FireSmart® each side    |                                      |
| Double Steel Frame Wall with FireSmart Central Liner - Two Way FRR |               |           |                      |               |    |                                                              |                                      |
| E2CSD60                                                            | -F26          | -/60/60   | NLB                  | 44            | 43 | 1 x 13mm EPB FireSmart® each side (requires wall insulation) |                                      |

## Fire Rated Universal Walls

| System Number                                      | Lining Suffix | FRR         | Load Bearing Ability | Noise Control |    | Lining Requirements                                          |
|----------------------------------------------------|---------------|-------------|----------------------|---------------|----|--------------------------------------------------------------|
|                                                    |               |             |                      | STC           | Rw |                                                              |
| Universal Timber or Steel Frame Wall - One Way FRR |               |             |                      |               |    |                                                              |
| E1UW15                                             | -S13          | 15/15/15    | LB                   | -             | -  | 1 x 13mm EPB® Standard one side                              |
| E1UW30                                             | -F16a         | 30/30/30    | LB                   | -             | -  | 1 x 16mm EPB FireSmart® one side                             |
| E2UW30                                             | -F20          | 30/30/30    | LB                   | -             | -  | 2 x 10mm EPB FireSmart® one side                             |
| E2UW45                                             | -F26          | 45/45/45    | LB                   | -             | -  | 2 x 13mm EPB FireSmart® one side                             |
| E2UW60                                             | -F26a         | 60/60/60    | LB                   | -             | -  | 2 x 13mm EPB FireSmart® one side                             |
|                                                    | -F29          | 60/60/60    | LB                   | -             | -  | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® one side |
| E3UW90                                             | -F39a         | 90/90/90    | LB                   | -             | -  | 3 x 13mm EPB FireSmart® one side                             |
|                                                    | -F42          | 90/90/90    | LB                   | -             | -  | 1 x 16mm EPB FireSmart® and 2 x 13mm EPB FireSmart® one side |
| E3UW120                                            | -F45a         | 120/120/120 | LB                   | -             | -  | 1 x 13mm EPB FireSmart® and 2 x 16mm EPB FireSmart® one side |

## Fire Rated Walls with simultaneous fire exposure on both sides

| System Number                                                                        | Lining Suffix | FRR    | Load Bearing Ability | Noise Control |    | Lining Requirements               |
|--------------------------------------------------------------------------------------|---------------|--------|----------------------|---------------|----|-----------------------------------|
|                                                                                      |               |        |                      | STC           | Rw |                                   |
| Single Timber Frame Wall with Simultaneous Fire Exposure on Both sides - Two Way FRR |               |        |                      |               |    |                                   |
| E2TL30S                                                                              | -F26          | 30/-/- | LB                   | 38            | 37 | 1 x 13mm EPB FireSmart® each side |
| E4TL60S                                                                              | -F52          | 60/-/- | LB                   | 46            | 45 | 2 x 13mm EPB FireSmart® each side |



## Smoke Separation Walls

| System Number                                               | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |    | Lining Requirements                          | Page |
|-------------------------------------------------------------|---------------|----------|----------------------|---------------|----|----------------------------------------------|------|
|                                                             |               |          |                      | STC           | Rw |                                              |      |
| Smoke Separation - Timber or Steel Frame Wall - Two Way FRR |               |          |                      |               |    |                                              |      |
| E2sm10                                                      | -             | 10/10/10 | LB                   | -             | -  | 1 x Minimum 10mm EPB® Plasterboard each side |      |

## Fire Rated Floor/Ceilings

| System Number                 | Lining Suffix | FRR         | Load Bearing Ability | Noise Control |    |     | Lining Requirements                                 |
|-------------------------------|---------------|-------------|----------------------|---------------|----|-----|-----------------------------------------------------|
|                               |               |             |                      | STC           | Rw | IIC |                                                     |
| Floor/Ceiling                 |               |             |                      |               |    |     |                                                     |
| E1FC15                        | -S13          | 15/15/15    | LB                   | 38            | 37 | 31  | 1 x 13mm EPB® Standard                              |
| E1FC30                        | -F13          | 30/30/30    | LB                   | 39            | 39 | 32  | 1 x 13mm EPB FireSmart®                             |
| E2FC30                        | -S26          | 30/30/30    | LB                   | 39            | 38 | 32  | 2 x 13mm EPB® Standard                              |
| E1FC45                        | -F13          | 45/45/45    | LB                   | 39            | 39 | 32  | 1 x 13mm EPB FireSmart®                             |
| E1FC60                        | -F16          | 60/60/60    | LB                   | 39            | 38 | 32  | 1 x 16mm EPB FireSmart®                             |
| E2FC60                        | -FS26         | 60/60/60    | LB                   | 40            | 39 | 33  | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard  |
|                               | -F26          | 60/60/60    | LB                   | 41            | 40 | 34  | 2 x 13mm EPB FireSmart®                             |
| E2FC90                        | -F29          | 90/90/90    | LB                   | 41            | 40 | 34  | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® |
| E3FC120                       | -F39          | 120/120/120 | LB                   | 43            | 42 | 35  | 3 x 13mm EPB FireSmart®                             |
| Composite Joist Floor/Ceiling |               |             |                      |               |    |     |                                                     |
| E1CJ30                        | -F13          | 30/30/30    | LB                   | 39            | 38 | 32  | 1 x 13mm EPB FireSmart®                             |
| E2CJ30                        | -S26          | 30/30/30    | LB                   | 39            | 38 | 32  | 2 x 13mm EPB® Standard                              |
| E1CJ45                        | -F13          | 45/45/45    | LB                   | 39            | 38 | 32  | 1 x 13mm EPB FireSmart®                             |
| E1CJ60                        | -F16          | 60/60/60    | LB                   | 39            | 38 | 32  | 1 x 16mm EPB FireSmart®                             |
| E2CJ60                        | -FS26         | 60/60/60    | LB                   | 40            | 39 | 33  | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard  |
| Steel Joist Floor/Ceiling     |               |             |                      |               |    |     |                                                     |
| E1SJ30                        | -F13          | 30/30/30    | LB                   | 35            | 34 | 31  | 1 x 13mm EPB FireSmart®                             |
| E2SJ60                        | -F26          | 60/60/60    | LB                   | 39            | 38 | 32  | 2 x 13mm EPB FireSmart®                             |
| Battened Floor/Ceiling        |               |             |                      |               |    |     |                                                     |
| E1BC30                        | -F13          | 30/30/30    | LB                   | 35            | 34 | 31  | 1 x 13mm EPB FireSmart®                             |
| E1BC60                        | -F16          | 60/60/60    | LB                   | 39            | 38 | 32  | 1 x 16mm EPB FireSmart®                             |
| Direct Fix Clip Floor/Ceiling |               |             |                      |               |    |     |                                                     |
| E1DF45                        | -F13          | 45/45/45    | LB                   | 49            | 48 | 42  | 1 x 13mm EPB FireSmart®                             |
| E1DF60                        | -F16          | 60/60/60    | LB                   | 49            | 48 | 43  | 1 x 16mm EPB FireSmart®                             |

Please refer to the EPB Plasterboard Fire Rated Systems Manual for these System Specification sheets



## Fire Rated Floor/Ceilings

| System Number | Lining Suffix | FRR | Load Bearing Ability | Noise Control |    |     | Lining Requirements | Page |
|---------------|---------------|-----|----------------------|---------------|----|-----|---------------------|------|
|               |               |     |                      | STC           | Rw | IIC |                     |      |

|         |       |             |     |    |    |    |                                                    |
|---------|-------|-------------|-----|----|----|----|----------------------------------------------------|
| E2DF60  | -FS26 | 60/60/60    | LB  | 49 | 48 | 43 | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard |
|         | -F26  | 60/60/60    | LB  | 52 | 51 | 43 | 2 x 13mm EPB FireSmart®                            |
| E2DF90  | -F32  | 90/90/90    | NLB | 54 | 53 | 43 | 2 x 16mm EPB FireSmart®                            |
| E3DF120 | -F39  | 120/120/120 | LB  | 54 | 53 | 43 | 3 x 13mm EPB FireSmart®                            |

### Suspended Grid Floor/Ceiling

|        |       |          |    |    |    |    |                                                     |
|--------|-------|----------|----|----|----|----|-----------------------------------------------------|
| E2SC30 | -S26  | 30/30/30 | LB | 50 | 49 | 42 | 2 x 13mm EPB® Standard                              |
| E1SC45 | -F13  | 45/45/45 | LB | 48 | 47 | 42 | 1 x 13mm EPB FireSmart®                             |
| E1SC60 | -F16  | 60/60/60 | LB | 48 | 47 | 43 | 1 x 16mm EPB FireSmart®                             |
| E1XC60 | -F16  | 60/60/60 | LB | 48 | 47 | 43 | 1 x 16mm EPB FireSmart®                             |
| E2SC60 | -FS26 | 60/60/60 | LB | 48 | 47 | 42 | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard  |
|        | -F26  | 60/60/60 | LB | 51 | 50 | 42 | 2 x 13mm EPB FireSmart®                             |
| E2SC90 | -F32  | 90/90/90 | LB | 53 | 52 | 43 | 2 x 16mm EPB FireSmart®                             |
| E2XC90 | -F29  | 90/90/90 | LB | 48 | 47 | 43 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® |

## Fire Rated Universal Ceilings

| System Number | Lining Suffix | FRR | Load Bearing Ability | Noise Control |    |     | Lining Requirements |
|---------------|---------------|-----|----------------------|---------------|----|-----|---------------------|
|               |               |     |                      | STC           | Rw | IIC |                     |

### Universal Ceiling - Timber or Steel Frame

|        |       |          |    |   |   |   |                                                     |
|--------|-------|----------|----|---|---|---|-----------------------------------------------------|
| E1UC15 | -F13  | 15/15/15 | LB | - | - | - | 1 x 13mm EPB FireSmart®                             |
| E1UC30 | -F16a | 30/30/30 | LB | - | - | - | 1 x 16mm EPB FireSmart®                             |
| E2UC60 | -F26a | 60/60/60 | LB | - | - | - | 2 x 13mm EPB FireSmart®                             |
|        | -F29  | 60/60/60 | LB | - | - | - | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® |
| E3UC90 | -F39a | 90/90/90 | LB | - | - | - | 3 x 13mm EPB FireSmart®                             |
|        | -F42  | 90/90/90 | LB | - | - | - | 1 x 16mm EPB FireSmart® and 2 x 13mm EPB FireSmart® |

Please refer to the EPB Plasterboard Fire Rated Systems Manual for these System Specification sheets





## Fire Rated Speciality Systems

| System Number | Lining Suffix | FRR | Load Bearing Ability | Noise Control |      |            |      | Lining Requirements | Page |
|---------------|---------------|-----|----------------------|---------------|------|------------|------|---------------------|------|
|               |               |     |                      | STC           |      |            |      |                     |      |
|               |               |     |                      | 64mm Stud     |      | 102mm Stud |      |                     |      |
|               |               |     |                      | No Fill       | Fill | No Fill    | Fill |                     |      |

### Shaft Wall - Fire Rated from Shaft Side only

|          |      |           |     |    |    |    |    |                                                     |
|----------|------|-----------|-----|----|----|----|----|-----------------------------------------------------|
| E1SWS60  | -F13 | -/60/60   | NLB | 39 | 45 | 42 | 46 | 1 x 13mm EPB FireSmart®                             |
| E2SWS90  | -F26 | -/90/90   | NLB | 43 | 49 | 46 | 50 | 2 x 13mm EPB FireSmart®                             |
| E2SWS120 | -F29 | -/120/120 | NLB | 44 | 50 | 46 | 51 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® |

### Shaft Wall - Fire Rated from Either Side

|          |      |           |     |    |    |    |    |                                                     |
|----------|------|-----------|-----|----|----|----|----|-----------------------------------------------------|
| E1SWE30  | -F13 | -/30/30   | NLB | 39 | 45 | 42 | 46 | 1 x 13mm EPB FireSmart®                             |
| E2SWE60  | -F26 | -/60/60   | NLB | 43 | 49 | 46 | 50 | 2 x 13mm EPB FireSmart®                             |
| E2SWE90  | -F29 | -/90/90   | NLB | 44 | 50 | 46 | 51 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart® |
| E3SWE120 | -F42 | -/120/120 | NLB | 46 | 51 | 48 | 52 | 1 x 16mm EPB FireSmart® and 2 x 13mm EPB FireSmart® |

### EPB Shaft Panel

EPB Shaft Panel

## Fire Rated Columns & Beams

| System Number | Lining Suffix | FRR | Load Bearing Ability | Noise Control |    | Lining Requirements |
|---------------|---------------|-----|----------------------|---------------|----|---------------------|
|               |               |     |                      | STC           | Rw |                     |

### Steel Column & Beam - Timber Strapped

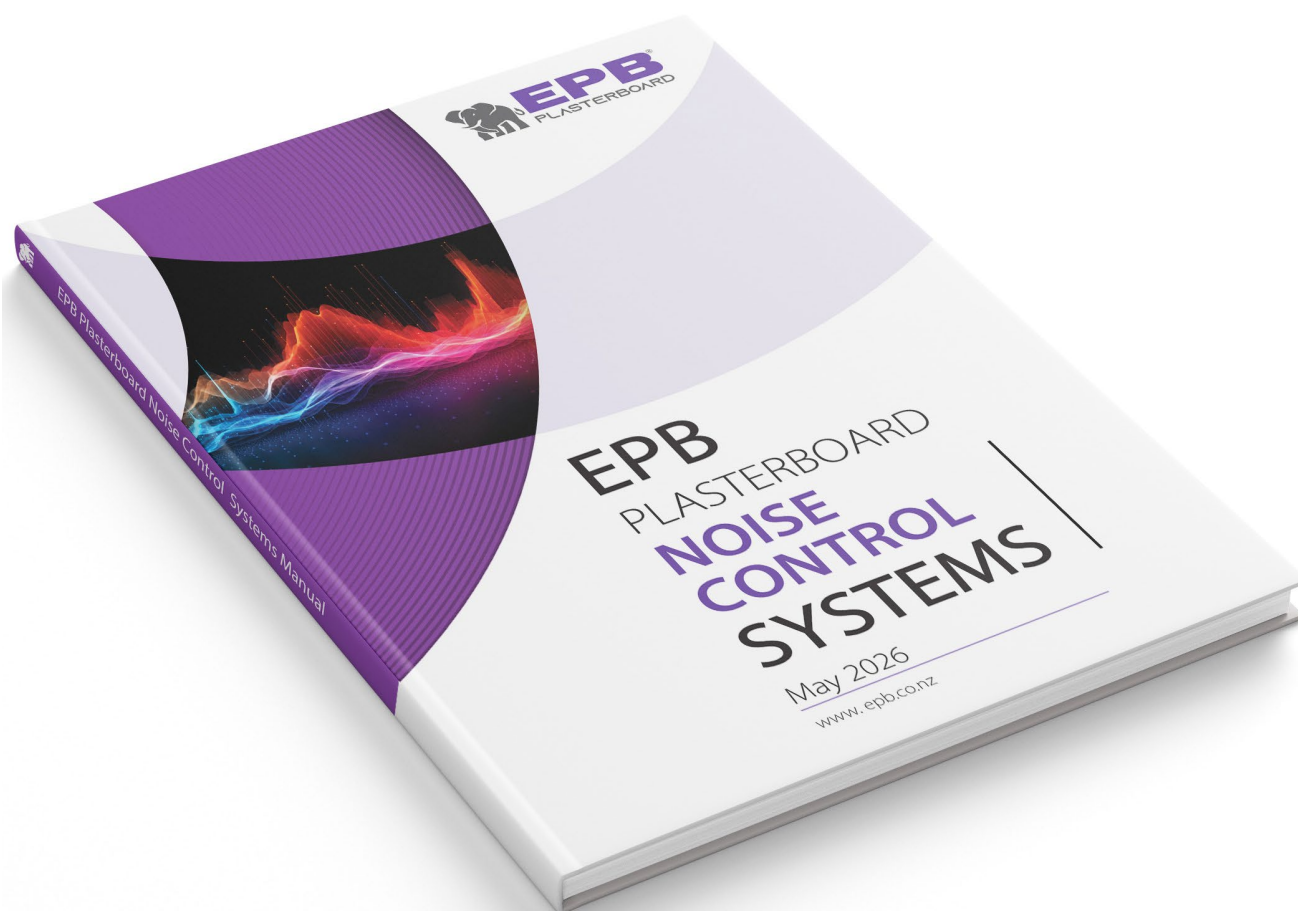
|          |      |         |    |   |   |                                                     |
|----------|------|---------|----|---|---|-----------------------------------------------------|
| E1CBT15  | -S13 | 15/-/-  | LB | - | - | 1 x 13mm EPB® Standard                              |
| E1CBT30  | -F16 | 30/-/-  | LB | - | - | 1 x 16mm EPB FireSmart®                             |
| E2CBT30  | -F20 | 30/-/-  | LB | - | - | 2 x 10mm EPB FireSmart®                             |
| E2CBT60  | -F26 | 60/-/-  | LB | - | - | 2 x 13mm EPB FireSmart®                             |
| E2CBT90  | -F32 | 90/-/-  | LB | - | - | 2 x 16mm EPB FireSmart®                             |
| E3CBT120 | -F45 | 120/-/- | LB | - | - | 1 x 13mm EPB FireSmart® and 2 x 16mm EPB FireSmart® |

### Steel Column & Beam - Steel Clip and Channel

|          |      |         |    |   |   |                                                     |
|----------|------|---------|----|---|---|-----------------------------------------------------|
| E1CBS15  | -S13 | 15/-/-  | LB | - | - | 1 x 13mm EPB® Standard                              |
| E1CBS30  | -F16 | 30/-/-  | LB | - | - | 1 x 16mm EPB FireSmart®                             |
| E2CBS30  | -F20 | 30/-/-  | LB | - | - | 2 x 10mm EPB FireSmart®                             |
| E2CBS60  | -F26 | 60/-/-  | LB | - | - | 2 x 13mm EPB FireSmart®                             |
| E2CBS90  | -F32 | 90/-/-  | LB | - | - | 2 x 16mm EPB FireSmart®                             |
| E3CBS120 | -F45 | 120/-/- | LB | - | - | 1 x 13mm EPB FireSmart® and 2 x 16mm EPB FireSmart® |

Please refer to the EPB Plasterboard Fire Rated Systems Manual for these System Specification sheets





For Noise Control Fire Rated system options, go to

# EPB Plasterboard Noise Control Systems Manual

## Full Intertency - Fire Rated Walls

| System Number                                                 | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                                    | Page                                                                                                    |
|---------------------------------------------------------------|---------------|----------|----------------------|---------------|----|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|                                                               |               |          |                      | STC           | Rw |                                                                                                        |                                                                                                         |
| Timber Double Frame Walls - Load Bearing                      |               |          |                      |               |    |                                                                                                        |                                                                                                         |
| E3TDLA30                                                      | -F30          | 30/30/30 | LB                   | 55            | 54 | 1 x 10mm EPB FireSmart® one side<br>2 x 10mm EPB FireSmart® other side                                 | Please refer to the EPB Plasterboard Noise Control Systems Manual for these System Specification sheets |
|                                                               | -S39          | 30/30/30 | LB                   | 57            | 56 | 1 x 13mm EPB® Standard one side<br>2 x 13mm EPB® Standard other side                                   |                                                                                                         |
|                                                               | -M30          | 30/30/30 | LB                   | 58            | 57 | 1 x 10mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side       |                                                                                                         |
| E4TDLA45                                                      | -S40          | 45/45/45 | LB                   | 58            | 57 | 2 x 10mm EPB® Standard each side                                                                       |                                                                                                         |
| E2TDLA60                                                      | -M26          | 60/60/60 | LB                   | 55            | 54 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                         |                                                                                                         |
| E3TDLA60                                                      | -MS39         | 60/60/60 | LB                   | 58            | 57 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB® Standard other side                     |                                                                                                         |
|                                                               | -M33          | 60/60/60 | LB                   | 59            | 58 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side       |                                                                                                         |
|                                                               | -M39          | 60/60/60 | LB                   | 61            | 60 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side       |                                                                                                         |
| E4TDLA60                                                      | -S46          | 60/60/60 | LB                   | 59            | 58 | 1 x 10mm EPB® Standard and 1 x 13mm EPB® Standard each side                                            |                                                                                                         |
|                                                               | -F40          | 60/60/60 | LB                   | 60            | 59 | 2 x 10mm EPB FireSmart® each side                                                                      |                                                                                                         |
|                                                               | -S52          | 60/60/60 | LB                   | 61            | 60 | 2 x 13mm EPB® Standard each side                                                                       |                                                                                                         |
|                                                               | -M40          | 60/60/60 | LB                   | 62            | 61 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                         |                                                                                                         |
| E2TDLA75                                                      | -F32          | 75/75/75 | LB                   | 56            | 55 | 1 x 16mm EPB FireSmart® each side                                                                      |                                                                                                         |
| E4TDLA90                                                      | -F52          | 90/90/90 | LB                   | 64            | 63 | 2 x 13mm EPB FireSmart® each side                                                                      |                                                                                                         |
|                                                               | -M52          | 90/90/90 | LB                   | 67            | 66 | 2 x 13mm BraceSmart®/NoiseSmart® each side                                                             |                                                                                                         |
| Timber Single Frame Walls with Resilient Mount - Load Bearing |               |          |                      |               |    |                                                                                                        |                                                                                                         |
| E3TMLA30                                                      | -S39          | 30/30/30 | LB                   | 55            | 54 | Framing Side: 1 x 13mm EPB® Standard<br>Mount Side: 2 x 13mm EPB® Standard                             |                                                                                                         |
|                                                               | -M30          | 30/30/30 | LB                   | 56            | 55 | Framing Side: 1 x 10mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 10mm EPB BraceSmart®/NoiseSmart® |                                                                                                         |
| E4TMLA30                                                      | -F40          | 30/30/30 | LB                   | 58            | 57 | Framing Side: 2 x 10mm EPB FireSmart®<br>Mount Side: 2 x 10mm EPB FireSmart®                           |                                                                                                         |
| E4TMLA45                                                      | -S52          | 45/45/45 | LB                   | 61            | 60 | Framing Side: 2 x 13mm EPB® Standard<br>Mount Side: 2 x 13mm EPB® Standard                             |                                                                                                         |
| E3TMLA60                                                      | -M39          | 60/60/60 | LB                   | 58            | 57 | Framing Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 13mm EPB BraceSmart®/NoiseSmart® |                                                                                                         |
| E4TMLA60                                                      | -M40          | 60/60/60 | LB                   | 62            | 61 | Framing Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 10mm EPB BraceSmart®/NoiseSmart® |                                                                                                         |
| E4TMLA90                                                      | -M52          | 90/90/90 | LB                   | 63            | 62 | Framing Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 13mm EPB BraceSmart®/NoiseSmart® |                                                                                                         |
| Timber Single Frame Walls with Resilient Rail - Load Bearing  |               |          |                      |               |    |                                                                                                        |                                                                                                         |
| E4TRLA45                                                      | -S52          | 45/45/45 | LB                   | 55            | 54 | Framing Side: 2 x 13mm EPB® Standard<br>Rail Side: 2 x 13mm EPB® Standard                              |                                                                                                         |
| E4TRLA60                                                      | -M40          | 60/60/60 | LB                   | 55            | 54 | Framing Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®  |                                                                                                         |
| E4TRLA90                                                      | -F52          | 90/90/90 | LB                   | 56            | 55 | Framing Side: 2 x 13mm EPB FireSmart®<br>Rail Side: 2 x 13mm EPB FireSmart®                            |                                                                                                         |
|                                                               | -M52          | 90/90/90 | LB                   | 57            | 56 | Framing Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®  |                                                                                                         |



## Full Intertency - Fire Rated Walls

| System Number                               | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                              | Page                                                                                                    |  |
|---------------------------------------------|---------------|----------|----------------------|---------------|----|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--|
|                                             |               |          |                      | STC           | Rw |                                                                                                  |                                                                                                         |  |
| Steel Double Frame Walls - Non Load Bearing |               |          |                      |               |    |                                                                                                  |                                                                                                         |  |
| E3SDA30                                     | -S39          | -/30/30  | NLB                  | 55            | 54 | 1 x 13mm EPB® Standard one side<br>2 x 13mm EPB® Standard other side                             | Please refer to the EPB Plasterboard Noise Control Systems Manual for these System Specification sheets |  |
|                                             | -M30          | -/30/30  | NLB                  | 56            | 55 | 1 x 10mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
| E4SDA45                                     | -F40          | -/45/45  | NLB                  | 58            | 57 | 2 x 10mm EPB FireSmart® each side                                                                |                                                                                                         |  |
| E2SDA60                                     | -M26          | -/60/60  | NLB                  | 55            | 54 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E3SDA60                                     | -MS39         | -/60/60  | NLB                  | 57            | 56 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB® Standard other side               |                                                                                                         |  |
|                                             | -FM33         | -/60/60  | NLB                  | 58            | 57 | 1 x 13mm EPB FireSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side              |                                                                                                         |  |
|                                             | -M33          | -/60/60  | NLB                  | 58            | 57 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
|                                             | -M39          | -/60/60  | NLB                  | 61            | 60 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
| E4SDA60                                     | -S52          | -/60/60  | NLB                  | 61            | 60 | 2 x 13mm EPB® Standard each side                                                                 |                                                                                                         |  |
|                                             | -M40          | -/60/60  | NLB                  | 61            | 60 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E2SDA75                                     | -F32          | -/75/75  | NLB                  | 56            | 55 | 1 x 16mm EPB FireSmart® each side                                                                |                                                                                                         |  |
| E4SDA75                                     | -MS52         | -/75/75  | NLB                  | 63            | 62 | 1 x 13mm EPB® Standard and<br>1x13mm EPB BraceSmart®/NoiseSmart® each side                       |                                                                                                         |  |
| E4SDA90                                     | -F52          | -/90/90  | NLB                  | 62            | 61 | 2 x 13mm EPB FireSmart® each side                                                                |                                                                                                         |  |
|                                             | -M52          | -/90/90  | NLB                  | 65            | 64 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| Steel Double Frame Walls - Load Bearing     |               |          |                      |               |    |                                                                                                  |                                                                                                         |  |
| E2SDLA30                                    | -M26          | 30/30/30 | LB                   | 55            | 54 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
|                                             | -F32          | 30/30/30 | LB                   | 56            | 55 | 1 x 16mm EPB FireSmart® each side                                                                |                                                                                                         |  |
| E3SDLA30                                    | -MF33         | 30/30/30 | LB                   | 58            | 57 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB FireSmart® other side              |                                                                                                         |  |
|                                             | -M39          | 30/30/30 | LB                   | 61            | 60 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
| E4SDLA30                                    | -F40          | 30/30/30 | LB                   | 59            | 58 | 2 x 10mm EPB® FireSmart each side                                                                |                                                                                                         |  |
| E4SDLA45                                    | -S52          | 45/45/45 | LB                   | 61            | 60 | 2 x 13mm EPB® Standard each side                                                                 |                                                                                                         |  |
|                                             | -M40          | 45/45/45 | LB                   | 61            | 60 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E4SDLA60                                    | -M52          | 60/60/60 | LB                   | 65            | 64 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E4SDLA90                                    | -F64          | 90/90/90 | LB                   | 66            | 65 | 2 x 16mm EPB FireSmart® each side                                                                |                                                                                                         |  |



## Full Intertency - Fire Rated Walls

| System Number                                                            | Lining Suffix | FRR     | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                                                            | Page                                                                                                    |  |
|--------------------------------------------------------------------------|---------------|---------|----------------------|---------------|----|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--|
|                                                                          |               |         |                      | STC           | Rw |                                                                                                                                |                                                                                                         |  |
| Steel Double Frame Walls with FireSmart Central Liner - Non Load Bearing |               |         |                      |               |    |                                                                                                                                |                                                                                                         |  |
| E4CSDA60                                                                 | -MS46         | -/60/60 | NLB                  | 56            | 56 | 1 x 13mm EPB FireSmart® and 1 x 10mm EPB® Standard each side                                                                   | Please refer to the EPB Plasterboard Noise Control Systems Manual for these System Specification sheets |  |
|                                                                          | -MS52         | -/60/60 | NLB                  | 57            | 58 | 1 x 13mm EPB FireSmart® And 1 x 13mm EPB® Standard each side                                                                   |                                                                                                         |  |
| Steel Frame Walls with Resilient Mount - Non Load Bearing                |               |         |                      |               |    |                                                                                                                                |                                                                                                         |  |
| E3SMA30                                                                  | -M30          | -/30/30 | NLB                  | 55            | 54 | Frame Side: 1 x 10mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®                           |                                                                                                         |  |
| E4SMA30                                                                  | -F40          | -/30/30 | NLB                  | 56            | 55 | Frame Side: 2 x 10mm EPB FireSmart®<br>Mount Side: 2 x 10mm EPB FireSmart®                                                     |                                                                                                         |  |
| E3SMA60                                                                  | -MS39         | -/60/60 | NLB                  | 56            | 55 | Frame Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 13mm EPB® Standard                                         |                                                                                                         |  |
|                                                                          | -M39          | -/60/60 | NLB                  | 57            | 56 | Frame Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®                           |                                                                                                         |  |
| E4SMA60                                                                  | -S52          | -/60/60 | NLB                  | 58            | 57 | Frame Side: 2 x 13mm EPB® Standard<br>Mount Side: 2 x 13mm EPB® Standard                                                       |                                                                                                         |  |
|                                                                          | -M40          | -/60/60 | NLB                  | 59            | 58 | Frame Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®                           |                                                                                                         |  |
| E4SMA90                                                                  | -M46          | -/90/90 | NLB                  | 60            | 59 | Frame Side: 1 x 13mm and 1 x 10mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 1 x 13mm and 1 x 10mm EPB BraceSmart®/NoiseSmart® |                                                                                                         |  |
|                                                                          | -M52          | -/90/90 | NLB                  | 62            | 61 | Frame Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®<br>Mount Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®                           |                                                                                                         |  |
| Steel Frame Walls with Resilient Rail - Non Load Bearing                 |               |         |                      |               |    |                                                                                                                                |                                                                                                         |  |
| E4SRA60                                                                  | -S52          | -/60/60 | NLB                  | 55            | 54 | Frame Side: 2 x 13mm EPB® Standard<br>Rail Side: 2 x 13mm EPB® Standard                                                        |                                                                                                         |  |
|                                                                          | -M40          | -/60/60 | NLB                  | 56            | 55 | Frame Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®                            |                                                                                                         |  |
| E4SRA90                                                                  | -M46          | -/90/90 | NLB                  | 57            | 56 | Frame Side: 1 x 13mm and 1 x 10mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 1 x 13mm and 1 x 10mm EPB BraceSmart®/NoiseSmart®  |                                                                                                         |  |
|                                                                          | -F52          | -/90/90 | NLB                  | 57            | 56 | Frame Side: 2 x 13mm EPB FireSmart®<br>Rail Side: 2 x 13mm EPB FireSmart®                                                      |                                                                                                         |  |
|                                                                          | -M52          | -/90/90 | NLB                  | 59            | 58 | Frame Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®                            |                                                                                                         |  |
| Quiet Steel Frame Walls - Non Load Bearing                               |               |         |                      |               |    |                                                                                                                                |                                                                                                         |  |
| E4SQA30                                                                  | -F40          | -/30/30 | NLB                  | 55            | 54 | 2 x 10mm EPB FireSmart® each side                                                                                              |                                                                                                         |  |
| E4SQA45                                                                  | -S46          | -/45/45 | NLB                  | 56            | 55 | 1x 10mm EPB® Standard and 1 x 13mm EPB® Standard each side                                                                     |                                                                                                         |  |
| E3SQA60                                                                  | -M33          | -/60/60 | NLB                  | 55            | 54 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side                               |                                                                                                         |  |
|                                                                          | -M36          | -/60/60 | NLB                  | 55            | 54 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>1 x 10mm and 1 x 13mm EPB BraceSmart®/NoiseSmart® other side                  |                                                                                                         |  |
|                                                                          | -M39          | -/60/60 | NLB                  | 57            | 56 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side                               |                                                                                                         |  |
| E4SQA60                                                                  | -S52          | -/60/60 | NLB                  | 57            | 56 | 2 x 13mm EPB® Standard each side                                                                                               |                                                                                                         |  |
|                                                                          | -M40          | -/60/60 | NLB                  | 57            | 56 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                                                 |                                                                                                         |  |
| E4SQA75                                                                  | -MS52         | -/75/75 | NLB                  | 59            | 58 | 1x13mm EPB BraceSmart®/NoiseSmart® and 1x13mm EPB® Standard each side                                                          |                                                                                                         |  |
| E4SQA90                                                                  | -M46          | -/90/90 | NLB                  | 59            | 58 | 1 x 10mm 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                                        |                                                                                                         |  |
|                                                                          | -M52          | -/90/90 | NLB                  | 61            | 60 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                                                 |                                                                                                         |  |



## Full Intertency - Fire Rated Walls

| System Number                                 | Lining Suffix | FRR     | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                              | Page                  |
|-----------------------------------------------|---------------|---------|----------------------|---------------|----|--------------------------------------------------------------------------------------------------|-----------------------|
|                                               |               |         |                      | STC           | Rw |                                                                                                  |                       |
| Staggered Steel Stud Walls - Non Load Bearing |               |         |                      |               |    |                                                                                                  |                       |
| E3SSA30                                       | -S39          | -/30/30 | NLB                  | 55            | 54 | 1 x 13mm EPB® Standard on One side<br>2 x 13mm EPB® Standard on Other side                       | Please refer to the E |
| E4SSA45                                       | -F40          | -/45/45 | NLB                  | 56            | 55 | 2 x 10mm EPB FireSmart® each side                                                                |                       |
| E3SSA60                                       | -MS39         | -/60/60 | NLB                  | 56            | 55 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB® Standard other side               |                       |
|                                               | -M39          | -/60/60 | NLB                  | 57            | 56 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side |                       |
| E4SSA60                                       | -S52          | -/60/60 | NLB                  | 59            | 58 | 2 x 13mm EPB® Standard each side                                                                 |                       |
| E4SSA90                                       | -M46          | -/90/90 | NLB                  | 59            | 58 | 1 x 10mm and 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                      |                       |
|                                               | -M52          | -/90/90 | NLB                  | 62            | 61 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                       |



## Full Intertency - Fire Rated Floor/Ceilings

| System Number                                           | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |    |       | Lining Requirements                                              | Page |
|---------------------------------------------------------|---------------|----------|----------------------|---------------|----|-------|------------------------------------------------------------------|------|
|                                                         |               |          |                      | STC           | Rw | IIC   |                                                                  |      |
| Direct Fix Clip - Floating Floor/Ceiling - Timber Joist |               |          |                      |               |    |       |                                                                  |      |
| EFJ2DFA60                                               | -FS26         | 60/60/60 | LB                   | 66            | 65 | 57-76 | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard               |      |
|                                                         | -F26          | 60/60/60 | LB                   | 67            | 66 | 57-76 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 60/60/60 | LB                   | 68            | 67 | 57-77 | 2 x 13mm EPB BraceSmart®/NoiseSmart®                             |      |
| EFP2DFA60                                               | -FS26         | 60/60/60 | LB                   | 63            | 62 | 55-72 | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard               |      |
|                                                         | -F26          | 60/60/60 | LB                   | 64            | 63 | 55-72 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 60/60/60 | LB                   | 65            | 64 | 56-72 | 2 x 13mm EPB BraceSmart®/NoiseSmart®                             |      |
| Direct Fix Clip - Floating Floor/Ceiling - Steel Joist  |               |          |                      |               |    |       |                                                                  |      |
| EFJ2DFsA45                                              | -F26          | 45/45/45 | LB                   | 66            | 65 | 56-76 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 45/45/45 | LB                   | 67            | 66 | 56-76 | 2 x 13mm EPB BraceSmart®/NoiseSmart®                             |      |
| EFP2DFsA45                                              | -F26          | 45/45/45 | LB                   | 63            | 62 | 55-72 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 45/45/45 | LB                   | 64            | 63 | 55-72 | 2 x 13mm EPB BraceSmart®/NoiseSmart®                             |      |
| EFJ2DFsA60                                              | -F29          | 60/60/60 | LB                   | 67            | 66 | 56-76 | 1 x 13mm EPB FireSmart® and 1 x 16mm EPB FireSmart®              |      |
| EFP2DFsA60                                              | -F29          | 60/60/60 | LB                   | 64            | 63 | 56-72 | 1 x 13mm EPB FireSmart® and 1 x 16mm EPB FireSmart®              |      |
| Direct Fix Clip - Floor/Ceiling - Timber Joist          |               |          |                      |               |    |       |                                                                  |      |
| E2DFA60                                                 | -FS26         | 60/60/60 | LB                   | 56            | 55 | 46-73 | 1 x 13mm EPB FireSmart® and 1 x 13mm EPB® Standard               |      |
|                                                         | -F26          | 60/60/60 | LB                   | 57            | 56 | 46-73 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 60/60/60 | LB                   | 58            | 57 | 46-73 | 2 x 13mm EPB BraceSmart®/NoiseSmart®                             |      |
| E2DFA90                                                 | -FM29         | 90/90/90 | LB                   | 57            | 56 | 47-73 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB BraceSmart®/NoiseSmart® |      |
|                                                         | -F32          | 90/90/90 | LB                   | 58            | 57 | 47-73 | 2 x 16mm EPB FireSmart®                                          |      |
| Suspended Grid Floor/Ceiling - Timber Joist             |               |          |                      |               |    |       |                                                                  |      |
| E2SCA60                                                 | -MS26         | 60/60/60 | LB                   | 56            | 55 | 40-72 | 1 x 13mm EPB BraceSmart®/NoiseSmart® and 1 x 13mm EPB® Standard  |      |
|                                                         | -F26          | 60/60/60 | LB                   | 56            | 55 | 40-72 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 60/60/60 | LB                   | 56            | 55 | 40-72 | 2 x 13 EPB BraceSmart®/NoiseSmart®                               |      |
| E2SCA75                                                 | -F29          | 75/75/75 | LB                   | 57            | 56 | 47-72 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB FireSmart®              |      |
| E2SCA90                                                 | -F32          | 90/90/90 | LB                   | 57            | 56 | 40-73 | 2 x 16mm EPB FireSmart®                                          |      |
| Direct Fix Clip - Floor/Ceiling - Steel Joist           |               |          |                      |               |    |       |                                                                  |      |
| E2DFsA45                                                | -F26          | 45/45/45 | LB                   | 56            | 55 | 47-74 | 2 x 13mm EPB FireSmart®                                          |      |
|                                                         | -M26          | 45/45/45 | LB                   | 57            | 56 | 47-74 | 2 x 13mm EPB BraceSmart®/NoiseSmart®                             |      |
| E2DFsA60                                                | -FM29         | 60/60/60 | LB                   | 57            | 56 | 47-75 | 1 x 16mm EPB FireSmart® and 1 x 13mm EPB BraceSmart®/NoiseSmart® |      |
|                                                         | -F32          | 60/60/60 | LB                   | 57            | 56 | 47-75 | 2 x 16mm EPB FireSmart®                                          |      |

Please refer to the EPB Plasterboard Noise Control Systems Manual for these System Specification sheets





## Sub Intertenancy - Walls

| System Number                                                | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                                    | Page                                                                                                    |  |
|--------------------------------------------------------------|---------------|----------|----------------------|---------------|----|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--|
|                                                              |               |          |                      | STC           | Rw |                                                                                                        |                                                                                                         |  |
| Single Timber Frame Walls - Load Bearing                     |               |          |                      |               |    |                                                                                                        |                                                                                                         |  |
| E2TLa30                                                      | -S20          | 30/30/30 | LB                   | 39            | 38 | 1 x 10mm EPB® Standard each side                                                                       | Please refer to the EPB Plasterboard Noise Control Systems Manual for these System Specification sheets |  |
|                                                              | -S26          | 30/30/30 | LB                   | 40            | 39 | 1 x 13mm EPB® Standard each side                                                                       |                                                                                                         |  |
|                                                              | -M20          | 30/30/30 | LB                   | 41            | 40 | 1 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                         |                                                                                                         |  |
| E3TLa30                                                      | -S30          | 30/30/30 | LB                   | 42            | 41 | 1 x 10mm EPB® Standard one side<br>2 x 10mm EPB® Standard other side                                   |                                                                                                         |  |
|                                                              | -S39          | 30/30/30 | LB                   | 43            | 42 | 1 x 13mm EPB® Standard one side<br>2 x 13mm EPB® Standard other side                                   |                                                                                                         |  |
|                                                              | -M30          | 30/30/30 | LB                   | 44            | 43 | 1 x 10mm EPB BraceSmart®/NoiseSmart® on One side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® on Other side |                                                                                                         |  |
| E4TLa45                                                      | -S40          | 45/45/45 | LB                   | 44            | 43 | 2 x 10mm EPB® Standard each side                                                                       |                                                                                                         |  |
| E2TLa60                                                      | -M26          | 60/60/60 | LB                   | 42            | 41 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                         |                                                                                                         |  |
| E3TLa60                                                      | -MS39         | 60/60/60 | LB                   | 45            | 44 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB® Standard other side                     |                                                                                                         |  |
|                                                              | -M33          | 60/60/60 | LB                   | 45            | 44 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side       |                                                                                                         |  |
|                                                              | -M39          | 60/60/60 | LB                   | 46            | 45 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB EPB BraceSmart®/NoiseSmart®other side    |                                                                                                         |  |
| E4TLa60                                                      | -S46          | 60/60/60 | LB                   | 45            | 44 | 1 x 10mm EPB® Standard and 1 x 13mm EPB® Standard each side                                            |                                                                                                         |  |
|                                                              | -S52          | 60/60/60 | LB                   | 46            | 45 | 2 x 13mm EPB® Standard each side                                                                       |                                                                                                         |  |
|                                                              | -M40          | 60/60/60 | LB                   | 46            | 45 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                         |                                                                                                         |  |
| E4TLa90                                                      | -M52          | 90/90/90 | LB                   | 48            | 47 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                         |                                                                                                         |  |
| Double Timber Frame Walls - Load Bearing                     |               |          |                      |               |    |                                                                                                        |                                                                                                         |  |
| E2TDLa30                                                     | -S20          | 30/30/30 | LB                   | 50            | 49 | 1 x 10mm EPB® Standard each side                                                                       |                                                                                                         |  |
|                                                              | -S26          | 30/30/30 | LB                   | 52            | 51 | 1 x 13mm EPB® Standard each side                                                                       |                                                                                                         |  |
|                                                              | -M20          | 30/30/30 | LB                   | 52            | 51 | 1 x 10mm EPB EPB BraceSmart®/NoiseSmart® each side                                                     |                                                                                                         |  |
| Single Timber Frame Walls with Resilient Mount- Load Bearing |               |          |                      |               |    |                                                                                                        |                                                                                                         |  |
| E3TMLa30                                                     | -S30          | 30/30/30 | LB                   | 52            | 51 | Frame Side: 1 x 10mm EPB® Standard<br>Mount Side: 2 x 10mm EPB® Standard                               |                                                                                                         |  |
| Single Timber Frame Walls with Resilient Rail- Load Bearing  |               |          |                      |               |    |                                                                                                        |                                                                                                         |  |
| E3TRLa30                                                     | -S30          | 30/30/30 | LB                   | 47            | 46 | Frame Side: 1 x 10mm EPB® Standard<br>Rail Side: 2 x 10mm EPB® Standard                                |                                                                                                         |  |
|                                                              | -S39          | 30/30/30 | LB                   | 50            | 49 | Frame Side: 1 x 13mm EPB® Standard<br>Rail Side: 2 x 13mm EPB® Standard                                |                                                                                                         |  |
|                                                              | -M30          | 30/30/30 | LB                   | 51            | 50 | Frame Side: 1 x 10mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 10mm EPB BraceSmart®/NoiseSmart®    |                                                                                                         |  |
| E3TRLa60                                                     | -MS39         | 60/60/60 | LB                   | 52            | 50 | Frame Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 13mm EPB® Standard                  |                                                                                                         |  |
|                                                              | -M39          | 60/60/60 | LB                   | 52            | 51 | Frame Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 13mm EPB BraceSmart®/NoiseSmart®    |                                                                                                         |  |



## Sub Intertenancy - Walls

| System Number                               | Lining Suffix | FRR       | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                              | Page                                                                                                    |  |
|---------------------------------------------|---------------|-----------|----------------------|---------------|----|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--|
|                                             |               |           |                      | STC           | Rw |                                                                                                  |                                                                                                         |  |
| Single Steel Frame Walls - Non Load Bearing |               |           |                      |               |    |                                                                                                  |                                                                                                         |  |
| E2Sa15                                      | -S20          | -/15/15   | NLB                  | 40            | 39 | 1 x 10mm EPB® Standard each side                                                                 | Please refer to the EPB Plasterboard Noise Control Systems Manual for these System Specification sheets |  |
| E2Sa30                                      | -S26          | -/30/30   | NLB                  | 41            | 40 | 1 x 13mm EPB® Standard each side                                                                 |                                                                                                         |  |
|                                             | -M20          | -/30/30   | NLB                  | 42            | 41 | 1 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E3Sa30                                      | -S33          | -/30/30   | NLB                  | 43            | 42 | 1 x 13mm EPB® Standard one side<br>2 x 10mm EPB® Standard other side                             |                                                                                                         |  |
|                                             | -S39          | -/30/30   | NLB                  | 44            | 42 | 1 x 13mm EPB® Standard one side<br>2 x 13mm EPB® Standard other side                             |                                                                                                         |  |
|                                             | -M30          | -/30/30   | NLB                  | 44            | 43 | 1 x 10mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
| E4Sa45                                      | -S40          | -/45/45   | NLB                  | 45            | 44 | 2 x 10mm EPB® Standard each side                                                                 |                                                                                                         |  |
| E2Sa60                                      | -M26          | -/60/60   | NLB                  | 43            | 42 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E3Sa60                                      | -MS39         | -/60/60   | NLB                  | 44            | 43 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB® Standard other side               |                                                                                                         |  |
|                                             | -M39          | -/60/60   | NLB                  | 45            | 44 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
| E4Sa60                                      | -S46          | -/60/60   | NLB                  | 46            | 45 | 1 x 10mm EPB® Standard and 1 x 13mm EPB® Standard each side                                      |                                                                                                         |  |
|                                             | -S52          | -/60/60   | NLB                  | 48            | 47 | 2 x 13mm EPB® Standard each side                                                                 |                                                                                                         |  |
|                                             | -M40          | -/60/60   | NLB                  | 48            | 47 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E4Sa90                                      | -M46          | -/90/90   | NLB                  | 50            | 49 | 1 x 10mm and 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                      |                                                                                                         |  |
| E4Sa105                                     | -M52          | -/105/105 | NLB                  | 52            | 51 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| Single Steel Frame Walls - Load Bearing     |               |           |                      |               |    |                                                                                                  |                                                                                                         |  |
| E2SLa30                                     | -M26          | 30/30/30  | LB                   | 43            | 42 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E3SLa30                                     | -M39          | 30/30/30  | LB                   | 45            | 44 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 13mm EPB BraceSmart®/NoiseSmart® other side |                                                                                                         |  |
| E4SLa30                                     | -S40          | 30/30/30  | LB                   | 45            | 44 | 2 x 10mm EPB® Standard each side                                                                 |                                                                                                         |  |
| E4SLa45                                     | -S52          | 45/45/45  | LB                   | 48            | 47 | 2 x 13mm EPB® Standard each side                                                                 |                                                                                                         |  |
|                                             | -M40          | 45/45/45  | LB                   | 48            | 47 | 2 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E4SLa60                                     | -M52          | 60/60/60  | LB                   | 52            | 51 | 2 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |
| E4SLa90                                     | -F64          | 90/90/90  | LB                   | 53            | 52 | 2 x 16mm EPB FireSmart® each side                                                                |                                                                                                         |  |
| Double Steel Frame Walls - Non Load Bearing |               |           |                      |               |    |                                                                                                  |                                                                                                         |  |
| E2SDa30                                     | -S26          | -/30/30   | NLB                  | 52            | 51 | 1 x 13mm EPB® Standard each side                                                                 |                                                                                                         |  |
|                                             | -M20          | -/30/30   | NLB                  | 52            | 51 | 1 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                   |                                                                                                         |  |



## Sub Intertenancy - Walls

| System Number                                           | Lining Suffix | FRR     | Load Bearing Ability | Noise Control |    | Lining Requirements                                                                                 | Page                                                      |  |
|---------------------------------------------------------|---------------|---------|----------------------|---------------|----|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--|
|                                                         |               |         |                      | STC           | Rw |                                                                                                     |                                                           |  |
| Steel Frame Walls with Resilient Rail- Non Load Bearing |               |         |                      |               |    |                                                                                                     |                                                           |  |
| E3SRa30                                                 | -S39          | -/30/30 | NLB                  | 51            | 50 | Frame Side: 1 x 13mm EPB® Standard<br>Rail Side: 2 x 13mm EPB® Standard                             | Please refer to the EPB Plasterboard Noise Control System |  |
|                                                         | -M30          | -/30/30 | NLB                  | 51            | 50 | Frame Side: 1 x 10mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 10mm EPB BraceSmart®/NoiseSmart® |                                                           |  |
| E3SRa60                                                 | -MS39         | -/60/60 | NLB                  | 52            | 51 | Frame Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 13mm EPB® Standard               |                                                           |  |
|                                                         | -M39          | -/60/60 | NLB                  | 53            | 52 | Frame Side: 1 x 13mm EPB BraceSmart®/NoiseSmart®<br>Rail Side: 2 x 13mm EPB BraceSmart®/NoiseSmart® |                                                           |  |
| Quiet Steel Frame Walls - Non Load Bearing              |               |         |                      |               |    |                                                                                                     |                                                           |  |
| E2SQa30                                                 | -S26          | -/30/30 | NLB                  | 47            | 46 | 1 x 13mm EPB® Standard each side                                                                    |                                                           |  |
|                                                         | -M20          | -/30/30 | NLB                  | 48            | 47 | 1 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                      |                                                           |  |
| E3SQa30                                                 | -S39          | -/30/30 | NLB                  | 53            | 52 | 1 x 13mm EPB® Standard one side<br>2 x 13mm EPB® Standard other side                                |                                                           |  |
|                                                         | -M30          | -/30/30 | NLB                  | 53            | 52 | 1 x 10mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB BraceSmart®/NoiseSmart® other side    |                                                           |  |
| E3SQa45                                                 | -MS33         | -/45/45 | NLB                  | 52            | 51 | 1 x 13mm EPB BraceSmart®/NoiseSmart® one side<br>2 x 10mm EPB® Standard other side                  |                                                           |  |
| E2SQa60                                                 | -M26          | -/60/60 | NLB                  | 50            | 49 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                      |                                                           |  |
| Staggered Steel Stud Walls - Non Load Bearing           |               |         |                      |               |    |                                                                                                     |                                                           |  |
| E2SSa30                                                 | -S26          | -/30/30 | NLB                  | 50            | 49 | 1 x 13mm EPB® Standard each side                                                                    |                                                           |  |
|                                                         | -M20          | -/30/30 | NLB                  | 49            | 48 | 1 x 10mm EPB BraceSmart®/NoiseSmart® each side                                                      |                                                           |  |
| E2SSa60                                                 | -M26          | -/60/60 | NLB                  | 52            | 51 | 1 x 13mm EPB BraceSmart®/NoiseSmart® each side                                                      |                                                           |  |
|                                                         | -F32          | -/60/60 | NLB                  | 54            | 53 | 1 x 16mm EPB FireSmart® each side                                                                   |                                                           |  |

## Sub Intertenancy - Floor/Ceilings

| System Number                   | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |    |       | Lining Requirements                  |
|---------------------------------|---------------|----------|----------------------|---------------|----|-------|--------------------------------------|
|                                 |               |          |                      | STC           | Rw | IIC   |                                      |
| Direct Fix Clip - Floor/Ceiling |               |          |                      |               |    |       |                                      |
| E1DFa15                         | -S13          | 15/15/15 | LB                   | 48            | 47 | 43-69 | 1 x 13mm EPB® Standard               |
| E2DFa30                         | -S26          | 30/30/30 | LB                   | 53            | 52 | 43-69 | 2 x 13mm EPB® Standard               |
| E1DFa45                         | -M13          | 45/45/45 | LB                   | 52            | 51 | 43-69 | 1 x 13mm EPB BraceSmart®/NoiseSmart® |
| E1DFa60                         | -F16          | 60/60/60 | LB                   | 52            | 51 | 43-69 | 1 x 16mm EPB FireSmart®              |
| Suspended Grid Floor/Ceiling    |               |          |                      |               |    |       |                                      |
| E1SCa15                         | -S13          | 15/15/15 | LB                   | 48            | 47 | 39-62 | 1 x 13mm EPB® Standard               |
| E2SCa30                         | -S26          | 30/30/30 | LB                   | 53            | 52 | 42-67 | 2 x 13mm EPB® Standard               |
| E1SCa45                         | -M13          | 45/45/45 | LB                   | 51            | 50 | 43-69 | 1 x 13mm EPB BraceSmart®/NoiseSmart® |
| E1SCa60                         | -F16          | 60/60/60 | LB                   | 52            | 51 | 43-69 | 1 x 16mm EPB FireSmart®              |



## INTRODUCTION

This manual provides details for construction of two way fire and acoustic walls and floor/ceilings with EPB® Plasterboard & Fibre Cement to provide fire protection as required by the NZBC clause C1 to C6 "Protection From Fire".

Elephant Plasterboard (NZ) Limited has many different combinations of two way fire and acoustic plasterboard & fibre cement wall and floor/ceiling fire rated systems. It is the responsibility of the specifier to accommodate the required performance of the building they are considering. The specifier should take into consideration both external and internal noise control and fire rating for occupants intended use. Special consideration must be taken in the construction process.

All construction details that have been provided in this manual are generic only and it is important that expert advice is sought to determine suitability in each individual project.

## Limitations and Conditions of Use

- EPB® Plasterboard is intended for normal conditions of dry internal use.
- EPB® Plasterboard must not be used for bracing applications in or around baths and shower areas.
- EPB® Plasterboard must not be exposed to liquid water or be installed in situations where extended exposures to humidity above 90% Relative Humidity are to be expected. Bathrooms, kitchens and laundries should have adequate ventilation or heating to avoid condensation build-up.
- A suitable surface finish (e.g. Vinyl wallpaper or gloss and semi-gloss alkyd paints) must be applied to EPB® Plasterboard in all areas where liquid water or high humidity can be expected.
- EPB® Plasterboard must not be installed over a vapour barrier.
- EPB® Plasterboard must not be applied directly to masonry, concrete or solid plaster, unless timber strapping or steel furring channels are used.
- EPB® Plasterboard must not be exposed to temperatures of 52°C or greater for prolonged periods.
- EPB® Plasterboard may not be used as an external lining.

## New Zealand Building Code (NZBC) Compliance

EPB Plasterboard is manufactured to AS/NZS 2588 and has been specifically formulated to meet New Zealand Building Code requirements. EPB Plasterboard has been marketed internationally since 1975 and the product has established an excellent history of performance for its use in buildings throughout New Zealand and the Asia/Pacific region. EPB Plasterboard meets the durability requirements of the NZBC and is subject to use, installation and maintenance in accordance with the instructions outlaid in this manual. The Manufacturing plant is International Standard ISO 9001 and ISO 14001 registered.

- **NZBC Clause B1 Structure**  
Framing material specifications used with EPB Plasterboard Systems must be in accordance with the performance requirements of NZBC Clause B1. Timber framed walls and floors must be installed and meet the requirements of NZS 3604.
- **NZBC Clause B2 Durability**  
EPB Plasterboard Fire, Noise Control & Bracing Systems have a serviceable life of not less than 50 years and so is in accordance to NZBC B2.3.1.
- **NZBC Clause C1-C6 Protection from Fire**  
EPB Plasterboard Fire & Noise Control Systems can meet the requirements of providing passive fire protection as per NZBC Clause C1-C6.
- **NZBC Clause E3 Internal Moisture**  
EPB Plasterboard Wet Area Systems can meet the requirements of NZBC Acceptable Solution E3/AS1.
- **NZBC Clause F2 Hazardous Building Materials**  
EPB Plasterboard Systems meet this requirement of NZBC Clause F2 and will not present a health hazard to people.
- **NZBC Clause G6 -Airborne & Impact Sound**  
EPB Plasterboard Noise Control Systems entitled 'Full Intertency' (STC 55 or greater) systems meet the requirements of NZBC Clause G6.

## INTRODUCTION

### Fire Resistance Ratings (FRR)

To prevent fire spread or structural collapse, the Acceptable Solutions require building elements to have fire resistance ratings (FRRs). The level of FRR required depends on the risk group of the building.

#### FRR components

An FRR comprises three numbers: these give time values in minutes for structural adequacy, integrity and insulation. Eg. --/60/60 (a/b/c). Primary and secondary elements required to have an FRR will, depending on their function, need to satisfy one or more of these three criteria as follows:

- a) **Structural Adequacy:** usually provided by primary elements within a fire cell. These include building elements which are part of the structure, and those providing support to other elements with an FRR within the same or adjacent fire cells. Examples are: columns, beams, floors and walls (which may also be fire separations).
- b) **Integrity:** usually provided by secondary elements. Examples are fire separations, which are internal partitions and floors, areas of external walls not permitted to be an unprotected area, and some areas of roofs when close to another building or crossed by an exit way. Primary elements forming an integral part of a fire separation are also rated for integrity.
- c) **Insulation:** applies to fire separations and is required where the transmission of heat through the element may endanger occupants on the other side or cause fire to spread to other fire cells or adjacent buildings. For example, insulation is necessary for fire separations between sleeping spaces, where protecting a safe path or through external walls.

EPB® Plasterboard Fire Rated Systems have numerous system combinations as outlined in this manual. All EPB® Plasterboard Fire Rated systems have been tested or internally assessed or have opinions provided by independent accredited quality assurance organisations like "The Building Research Association of New Zealand (BRANZ)".

### Internal Lining Surface Finish Properties

EPB® Plasterboard has been tested at BRANZ in accordance with ISO 5660 Reaction to fire tests (Heat release, smoke production and mass loss rate) Part 1: Heat release rate (cone calorimeter method); and ISO 5660 Reaction to fire tests (Heat release, smoke production and mass loss rate) Part 2: Smoke production rate (dynamic measurement).

A Group Number Classification of **1-S** was achieved in Fire test FH 5695-TT for all EPB Plasterboard paper faced sheet linings. This classification only applies to EPB® Plasterboard paper faced sheet linings without paint or wallpaper finish. Contact the surface finish suppliers for group number information for their products.

'Group Number 1-S' is the highest performance expectation under 'Part 4. Control of Internal Fire and Smoke Spread' clause C/AS2 to C/AS7 of the NZBC. It means an EPB® Plasterboard paper faced sheet lining can be specified for use in any risk group application.

### Control Of External Fire Spread

External spread of fire applies where:

- The building height is greater than 10m and upper floors have sleeping uses or are different property, refer to clause C3.5 of the NZBC;
- The building is located within 1m of a relevant boundary, refer to clause C3.7 of the NZBC.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

For the situations where 'no requirement' is listed in the compliance documents, James Hardie cladding systems installed over a flexible underlay as per the information published in the James Hardie Technical Specification Literature complies. See page 13 for list of relevant James Hardie Technical Literature.

For the other situations, James Hardie claddings in conjunction with RAB™ Board fixed into timber frame with R2.2 fibreglass insulation/James Hardie Mineral Insulation complies.

In addition, for buildings over 10m in height, the external wall cavity must be blocked off either at each floor level or at heights no more than 3.5m to prevent fire spread within the cavity. Refer to latest James Hardie Fire & Acoustic Design Manual - Figure 7: Intertency Fire Separation, for the horizontal joint detail to create a fire separation in conjunction with James Hardie claddings.

For construction details of James Hardie claddings with RAB™ Board, Ask James Hardie on 0800 808 868.



## EPB® Plasterboard & Fibre Cement Fire Rated Walls

EPB® Plasterboard & Fibre Cement Fire Rated Systems have been tested on timber & steel frame walls as Load Bearing (LB)

### Timber Frame

Stud heights, stud spacings, load and framing dimensions for Load Bearing (LB) Timber framed walls are determined by the NZBC, and NZS 3604. Heights greater than what is defined in NZS 3604 will need specific design by a structural engineer.

- **Internal Walls**

Minimum framing of 90 x 45mm shall be used with a maximum stud spacing of 600mm. Nogs to be spaced at 800mm maximum. Minimum framing depth as per fire and acoustic system selected or the structural requirements whichever is greater. All sheet edges must be supported by framing timber. Timber framing treatment to comply with the minimum requirements of NZS 3602. When framing at 140 x 45mm the maximum stud spacing 600mm.

- **External Walls**

Minimum framing & maximum stud spacings according to the table provided on figure EFC-001. Nogs to be spaced at 800mm maximum. Minimum framing depth as per fire and acoustic system selected or the structural requirements whichever is greater. All sheet edges must be supported by framing timber. Timber framing treatment to comply with the minimum requirements of NZS 3602.

- **Floors**

Floor joists of minimum 45mm width to be used. Strutting of floor joist as per NZS 3604 is required. Bottom plate fixing in timber floors must penetrate through floor into joists or solid blocking.

### Steel Frame

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. Steel frame must comply with the durability requirements of NZBC. Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum. A minimum of 89mm deep x 36mm wide steel stud framing to be used in external walls. Maximum stud spacing at 400mm centres. Nogs to be spaced at 800mm centres maximum. All sheet edges must be formed over and supported by framing.

All steel framing must be used according to their manufacturer's instructions. Steel framing properties vary considerably depending upon the grade of steel used. It is the designer's responsibility to ensure the type of framing selected is fit for purpose and suitable to carry design loads.

### Thermal Fire Batten

Fire battens are used on all FRR steel stud systems and must be used between James Hardie cladding and steel framing face. For steel framing in interior/exterior applications the NZBC also requires additional external insulation to achieve adequate thermal resistance.

Refer to James Hardie Fire and Acoustic Design Manual for correct assembly and installation of Thermal Fire Battens.

These insulated battens are assembled on site by cutting a 100mm wide strip from 9mm thick EasyLap™ Panel and adhering a 10mm thick x 100mm wide XPS (extruded polystyrene) on its face. All fire battens are fixed horizontally and vertically to all steel members. All battens must be neatly cut and tightly fitted covering all steel members. All thermal fire battens must be fitted with the polystyrene to the exterior face. The batten is tacked to the steel framing as shown in the following detail.

### Structural Steel Members in Fire Rated Walls

Structural steel members such as columns or beams are sometimes located inside the cavities of two way fire rated wall or floor/ceiling systems. The FRR of the two way fire rated system applies across the entire element, from exposed side to the unexposed side. The temperature inside the cavity can rise above the critical temperature level for structural steel members resulting in premature buckling. Therefore by containing a structural steel member within a two way fire system, it cannot be automatically assumed that the structural steel member will maintain its structural integrity of the two way fire system within which it is contained. Hence, either reference should be made to the column and beam section of the EPB Fire Rated System Manual for further information on protection of structural steel members.

### Cavity Insulation

In order to achieve the stated fire ratings in this manual all cavities must be filled with an insulation material regardless if its an internal or external wall.

- **Glass wool Insulation**

Any brand of R2.2 glass wool insulation with a weight between 12-18kg/m³ may be used. This insulation can be substituted with a higher R-value fibreglass insulation to achieve higher insulation requirements.

- **James Hardie Mineral Insulation**

In a fire rated system where a mineral insulation is specified, only James Hardie Mineral Insulation must be used. James Hardie Mineral Insulation cannot be substituted with any other insulation material. Refer to the James Hardie Mineral Insulation Technical Supplement for correct application.

Also refer to clause H1 of the NZBC for further information on R-value Requirement

## Fire Retardant Flexible Underlay

All external walls must have a fire retardant flexible underlay or a rigid air barrier installed beneath the cladding.

In a FRR system, any flexible underlay that complies with clause 9.1.7.1 and Table 23 of E2/AS1 and has a Flammability Index not exceeding 5, when tested to AS 1530.2 may be used. Installation of a flexible underlay must be in accordance with the manufacturer's recommendations and their installation instructions.

## Rigid Air Barrier

James Hardie RAB™ Board can be used to achieve the published fire ratings stated in this manual. Refer to James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual for information regarding its installation.

For EH wind zone or Specific Engineering Design (SED) projects where the design wind pressures are between 1.5kPa (ULS) and 2.5kPa (ULS), James Hardie RAB™ Board must be used.

In addition, for buildings over 10m in height, the external wall cavity must be blocked off either at each floor level or at heights no more than 3.5m to prevent fire spread within the cavity. Refer to latest James Hardie Fire & Acoustic Design Manual - Figure 7: Intertency Fire Separation, for the horizontal joint detail to create a fire separation in conjunction with James Hardie claddings.

Flexible underlay is not required when using James Hardie RAB™ Board.

For construction details of James Hardie claddings with RAB™ Board, Ask James Hardie on 0800 808 868.

When Rigid Air Barrier is not a part of the James Hardie Fire system, alternative Rigid Air Barrier systems are allowable.

## EPB® QuickBrace System

The bracing systems specified in the EPB® QuickBrace Systems Manual can easily be combined with the EPB® Fire Rated Systems by adhering to the details outlined for the relevant Bracing system type and relevant Fire Rated System requirements.

For Single layered Fire Rated systems, use the QuickBrace fastening pattern and the required screw length of the Fire Rated Systems.

For Double layered Fire Rated systems, the bracing sheet can be either:

- The Inner sheet fixed directly to the framing. Use the QuickBrace fastening pattern and the required screw length of the Fire Rated System. The inner layer can be left unstopped; or
- The Outer sheet. Use the QuickBrace fastening pattern and the required screw length of the Fire Rated System.

## EPB® Plasterboard & Fibre Cement Fire Rated Floor/Ceiling

EPB® Plasterboard & Fibre Cement Fire Rated Systems have been tested on Load bearing floor/ceiling systems. Refer to this manual for fixings and layer combinations. Ceiling linings must be mechanically fixed. Glue may not be substituted for mechanical fixing if used in a passive fire system. Screw lengths, spacings and type as defined by this manual must be used.

- **Timber Joists**  
Floor/ceiling system as defined in NZS 3604 for floor loadings (2.0 kPa or 3.0 kPa) may be used. Consult NZS 3604 latest edition for floor joist spans. Floor joists must have a minimum of 190mm depth x 45mm width and a maximum spacing of 600mm centres. Consult the appropriate supplier's technical information for design strength and serviceability.
- **Steel Joists**  
Steel floor joists shall be a minimum depth of 190mm C-section with 45mm flanges and a steel gauge of 1.6mm minimum. Joists to be spaced at no more than 600mm centres.
- **Flooring**  
Floor/Ceiling system must have a floor that is at least 20mm thick particle board complying with AS/NZS 1860 Part 1: 2017 or minimum 17mm thick structural ply complying with AS/NZS 2269 Part 0: 2012 fixed to the floor joists as per manufacturer's installation instructions.
- **Floating Floor**  
The floating floor systems must be either 19mm James Hardie Tongue & Groove Secura™ Interior Floor or 20mm Tongue & Groove Particle Board complying to AS/NZS 1860.

## Post Fire Stability

The fire rated walls built close to boundary are required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4. The bottom plate of these walls can be fixed in accordance with the post fire stability details published in this design manual on page 85, using Pryda Brace anchor brackets on either side of the stud.

For steel framing, post fire stability must be as per SED.





## Product & Component Substitution

When a product specified in a system as per this manual is substituted, the performance of the system will be compromised. Therefore the materials specified in the system must not be substituted. Elephant Plasterboard (NZ) Limited does not take any liability if substitution of components are implemented in any EPB Plasterboard Systems without consultation.

## EPB® Plasterboard Substitution Options

The table below indicates which products can substitute the original EPB Plasterboard type specified.

✓ indicates that the FRR performance will be maintained

X indicates that the FRR performance will be lower and so therefore the substitution is not allowed

| Original EPB Plasterboard specified | EPB Plasterboard Substitution Options - FRR performance |      |                |      |      |                                 |      |                |      |
|-------------------------------------|---------------------------------------------------------|------|----------------|------|------|---------------------------------|------|----------------|------|
|                                     | EPB® Standard                                           |      | EPB FireSmart® |      |      | EPB BraceSmart®/<br>NoiseSmart® |      | EPB AquaSmart® |      |
|                                     | 10mm                                                    | 13mm | 10mm           | 13mm | 16mm | 10mm                            | 13mm | 10mm           | 13mm |
| 10mm EPB® Standard                  | -                                                       | ✓    | ✓              | ✓    | ✓    | ✓                               | ✓    | ✓              | ✓    |
| 13mm EPB® Standard                  | X                                                       | -    | X              | ✓    | ✓    | ✓                               | ✓    | ✓              | ✓    |
| 10mm EPB FireSmart®                 | X                                                       | ✓    | -              | ✓    | ✓    | ✓                               | ✓    | ✓              | ✓    |
| 13mm EPB FireSmart®                 | X                                                       | X    | X              | -    | ✓    | X                               | ✓    | X              | ✓    |
| 16mm EPB FireSmart®                 | X                                                       | X    | X              | X    | -    | X                               | X    | X              | X    |
| 10mm EPB BraceSmart®/NoiseSmart®    | X                                                       | X    | X              | ✓    | ✓    | -                               | ✓    | ✓              | ✓    |
| 13mm EPB BraceSmart®/NoiseSmart®    | X                                                       | X    | X              | X    | ✓    | X                               | -    | X              | ✓    |

## James Hardie Cladding Options & Technical Literature

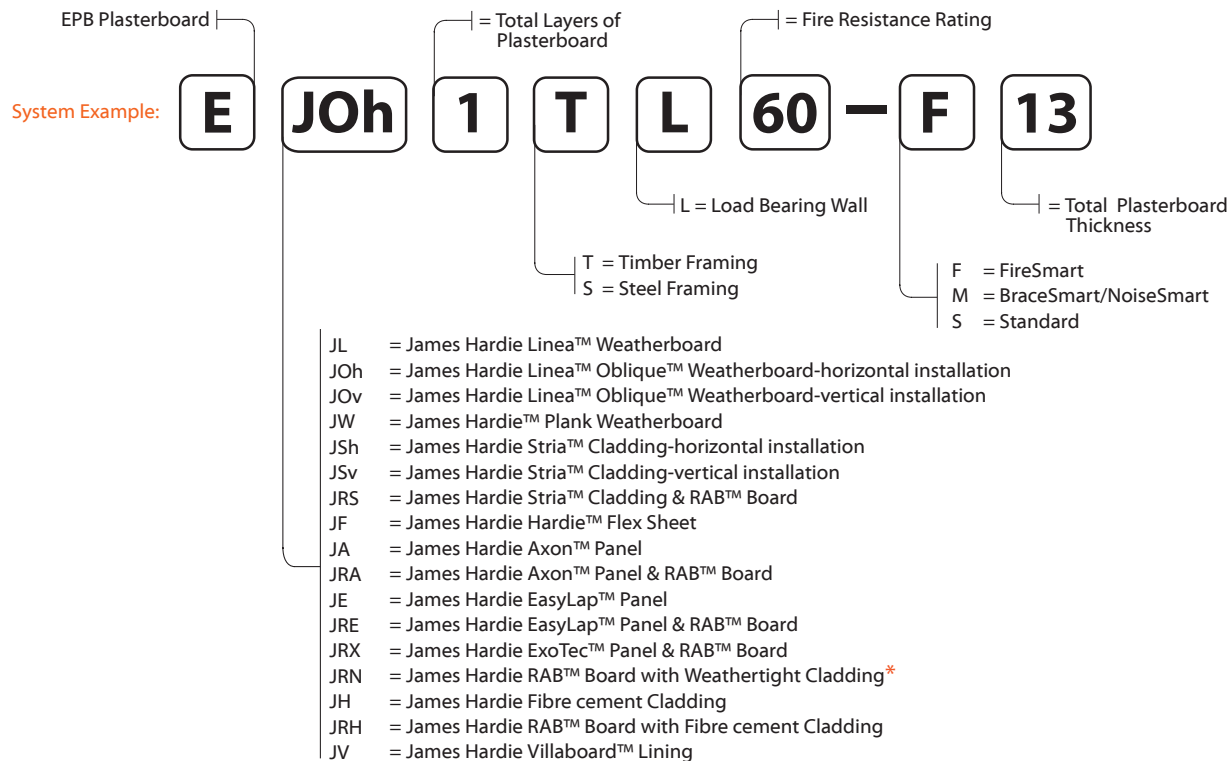
The James Hardie product layout and installation must be in accordance with the relevant James Hardie product literature for the cladding selected. Refer to the table below for limitations and relevant James Hardie product technical literature.

| Linea™ Weatherboard                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                         |                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Timber Cavity Batten                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                             | Direct Fix                                                                                                                                                                                                              |                                                                                                                                                                         |
| <ul style="list-style-type: none"><li>- Install over Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Linea™ Weatherboard Cavity Fix Technical Specification</li></ul> |                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"><li>- Refer to Linea™ Weatherboard Direct Fix Technical Specification</li></ul>                                                                                                       |                                                                                                                                                                         |
| Oblique™ Weatherboard                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Horizontal fixing                                                                                                                                                                                                                   | <ul style="list-style-type: none"><li>- Install over Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Oblique™ Weatherboard 14mm Horizontal Installation Technical Specification</li></ul>                                                                                                                                                     |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Vertical fixing                                                                                                                                                                                                                     | <ul style="list-style-type: none"><li>- Install over James Hardie Horizontal Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Oblique™ Weatherboard 14mm Vertical Installation Technical Specification &amp; Oblique™ Weatherboard Vertical Installation to Hardie™ 40mm structural horizontal cavity batten Technical Specification</li></ul> |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Stria™ Cladding                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Horizontal fixing                                                                                                                                                                                                                   | <ul style="list-style-type: none"><li>- Install over Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Stria™ Cladding Timber Cavity Batten Horizontal Technical Specification</li></ul>                                                                                                                                                        |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Vertical fixing                                                                                                                                                                                                                     | <ul style="list-style-type: none"><li>- Install over James Hardie Horizontal Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Stria™ Cladding Vertical Installation Technical Specification</li></ul>                                                                                                                                          |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Horizontal fixing<br>Hardie™ CLD™<br>Structural Batten                                                                                                                                                                              | <ul style="list-style-type: none"><li>- RAB™ Board must be used to achieve fire ratings</li><li>- Install over Hardie™ CLD™ Structural Cavity Battens</li><li>- Refer to Stria™ Cladding Hardie™ CLD™ Structural Cavity Batten Technical Specification</li></ul>                                                                                                                                            |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Axon™ Panel                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                         |                                                                                                                                                                         |
| Timber Cavity Batten                                                                                                                                                                                                                | Direct Fix                                                                                                                                                                                                                                                                                                                                                                                                  | Hardie™ CLD™ Structural Batten                                                                                                                                                                                          |                                                                                                                                                                         |
| <ul style="list-style-type: none"><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Axon™ Panel Timber Cavity Batten Technical Specification</li></ul>                                            | <ul style="list-style-type: none"><li>- Refer to Axon™ Panel Direct Fixed Technical Specification</li></ul>                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"><li>- RAB™ Board must be used to achieve fire ratings</li><li>- Refer to Axon™ Panel Fixed to Hardie™ CLD™ Structural Cavity Batten Technical Specification</li></ul>                 |                                                                                                                                                                         |
| Hardie™ Plank Weatherboards                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                             | Hardie™ Flex Sheet                                                                                                                                                                                                      |                                                                                                                                                                         |
| <ul style="list-style-type: none"><li>- Install over Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Hardie™ Plank Weatherboard Technical Specification</li></ul>     |                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"><li>- Install over Timber Cavity Battens</li><li>- RAB™ Board required for buildings over 10m or EH wind zone</li><li>- Refer to Hardie™ Flex Sheet Technical Specification</li></ul> |                                                                                                                                                                         |
| ExoTec™ Facade Panel                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                             | Villaboard™ Lining                                                                                                                                                                                                      | RAB™ Board                                                                                                                                                              |
| <ul style="list-style-type: none"><li>- RAB™ Board must be used to achieve fire ratings</li><li>- Install over Top Hat system</li><li>- Refer to ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification</li></ul>          |                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"><li>- Refer Villaboard™ Lining Installation Manual</li><li>- For internal applications only</li></ul>                                                                                 | <ul style="list-style-type: none"><li>- Refer HomeRAB™ Pre-Cladding &amp; RAB™ Board Installation Manual</li><li>- Cannot be used as a weathertight cladding.</li></ul> |



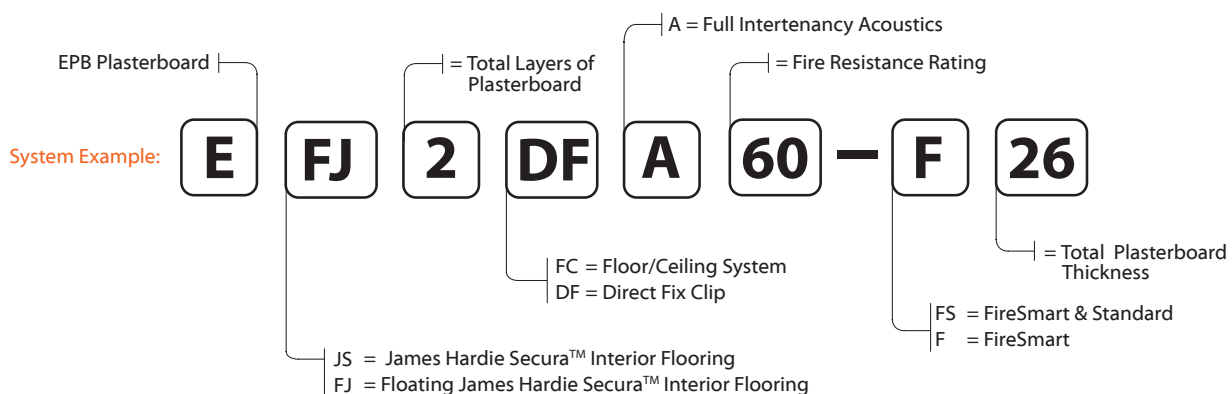
## Nomenclature:

### EPB® Specification Reference - Fire Wall with Fibre Cement



**\*Note1 :** It is also important to consider that the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents. Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

### EPB® Specification Reference - Floor/Ceiling with Fibre Cement





# External Timber Frame Walls

## EJL1TL30

## EPB &amp; James Hardie Linea™ Weatherboard

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                            |
|---------------|---------------|----------|-----------------|-------------------|-----------------------------------------------------------------------------------------------|
| EJL1TL30      | -F10          | 30/30/30 | R2.2 glass wool | 46                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Linea™ Weatherboard to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
- Nogs must be in place at a maximum of 800mm centres.
- Maximum stud spacing's are 600mm centres.
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                | EH Wind Zone      | Other Wind Zone   |
|----------------|-------------------|-------------------|
| Buildings <10m | Rigid Air Barrier | Flexible Underlay |
| Buildings >10m | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to Linea™ Weatherboard Cavity Fix Technical Specification for installation instructions. When Cladding can be directly fixed without a cavity batten then a fire retardant flexible underlay must be used (if allowable). Refer to Linea™ Weatherboard Direct Fix Technical Specification.

## Linea™ Weatherboard Cladding

James Hardie Linea™ Weatherboard cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both Linea™ Weatherboard Cavity Fix Technical Specification and Linea™ Weatherboard Direct Fix Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

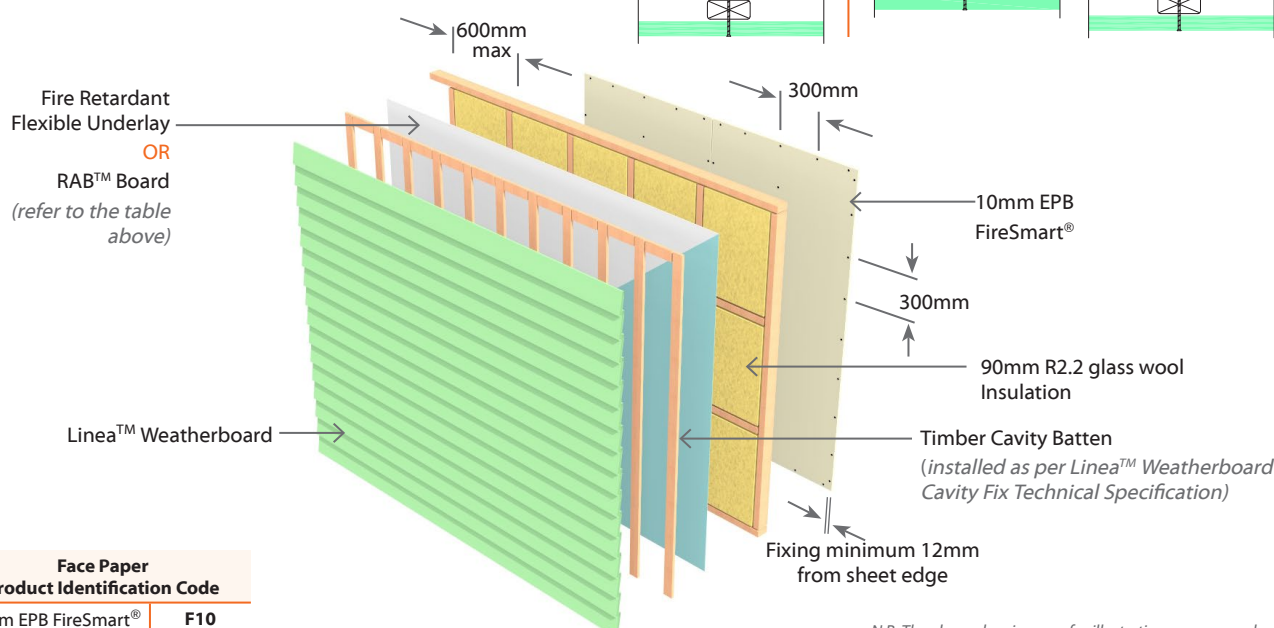
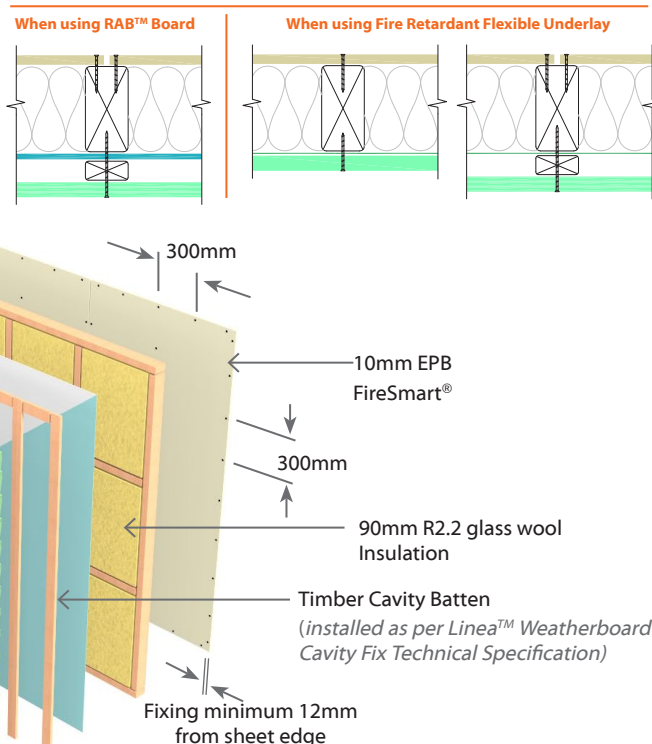
## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



## EJL1TL60

## EPB &amp; James Hardie Linea™ Weatherboard

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                         |
|---------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------|
| EJL1TL60      | -F13          | 60/60/60 | R2.2 glass wool | 47                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Linea™ Weatherboard to Other side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                | EH Wind Zone      | Other Wind Zone   |
|----------------|-------------------|-------------------|
| Buildings <10m | Rigid Air Barrier | Flexible Underlay |
| Buildings >10m | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.  
6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to Linea™ Weatherboard Cavity Fix Technical Specification for installation instructions. When Cladding can be directly fixed without a cavity batten then a fire retardant flexible underlay must be used (if allowable). Refer to Linea™ Weatherboard Direct Fix Technical Specification.

## Linea™ Weatherboard Cladding

James Hardie Linea™ Weatherboard cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both Linea™ Weatherboard Cavity Fix Technical Specification and Linea™ Weatherboard Direct Fix Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

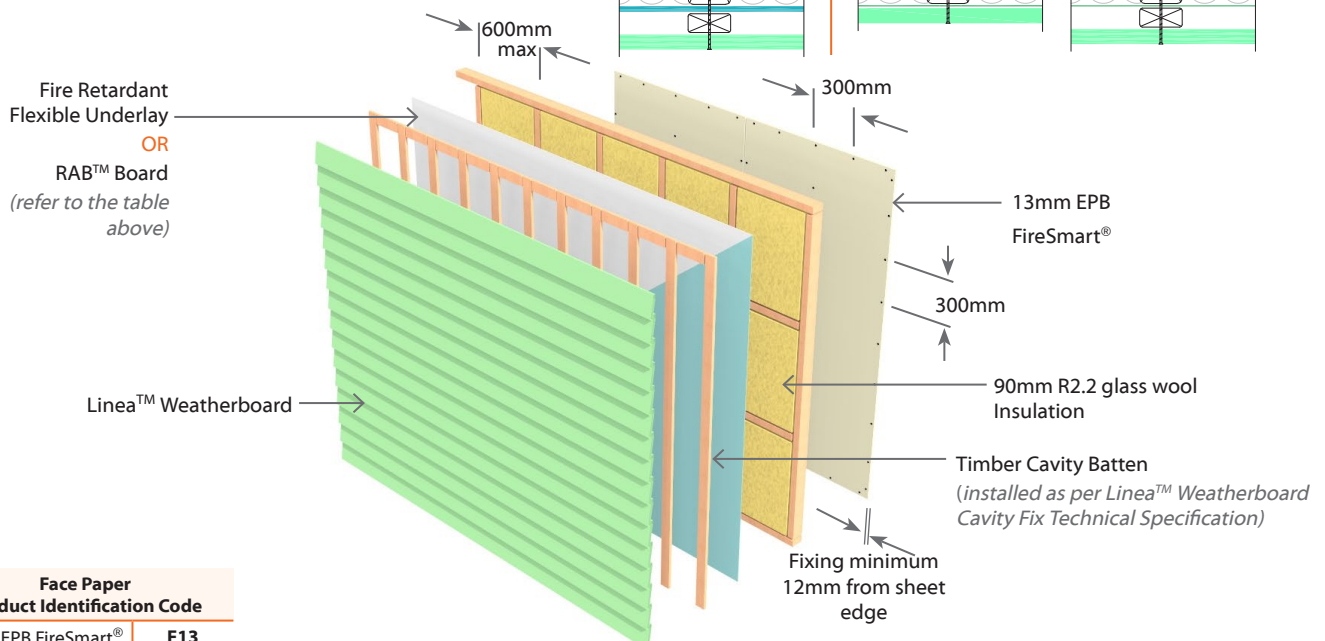
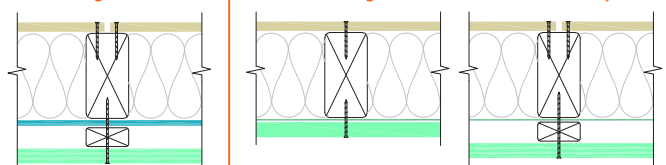
Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

## When using RAB™ Board

## When using Fire Retardant Flexible Underlay

Face Paper  
Product Identification Code

13mm EPB FireSmart® | F13

N.B. The above drawings are for illustrative purposes only.





## EJOH1TL30

## EPB &amp; James Hardie Oblique™ Weatherboard - Horizontal

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                         |
|---------------|---------------|----------|-----------------|-------------------|------------------------------------------------------------------------------------------------------------|
| EJOH1TL30     | -F10          | 30/30/30 | R2.2 glass wool | 46                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard horizontal to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                | EH Wind Zone      | Other Wind Zone   |
|----------------|-------------------|-------------------|
| Buildings <10m | Rigid Air Barrier | Flexible Underlay |
| Buildings >10m | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

Use a nominal 20mm Timber Cavity Batten. Refer to Oblique™ Weatherboard 14mm Horizontal Installation Technical Specification for installation instructions.

## Oblique™ Weatherboard Cladding - Horizontal

James Hardie Oblique™ Weatherboard cladding fixed horizontally to external side of the timber framing. Refer to both Oblique™ Weatherboard 14mm Horizontal Installation Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

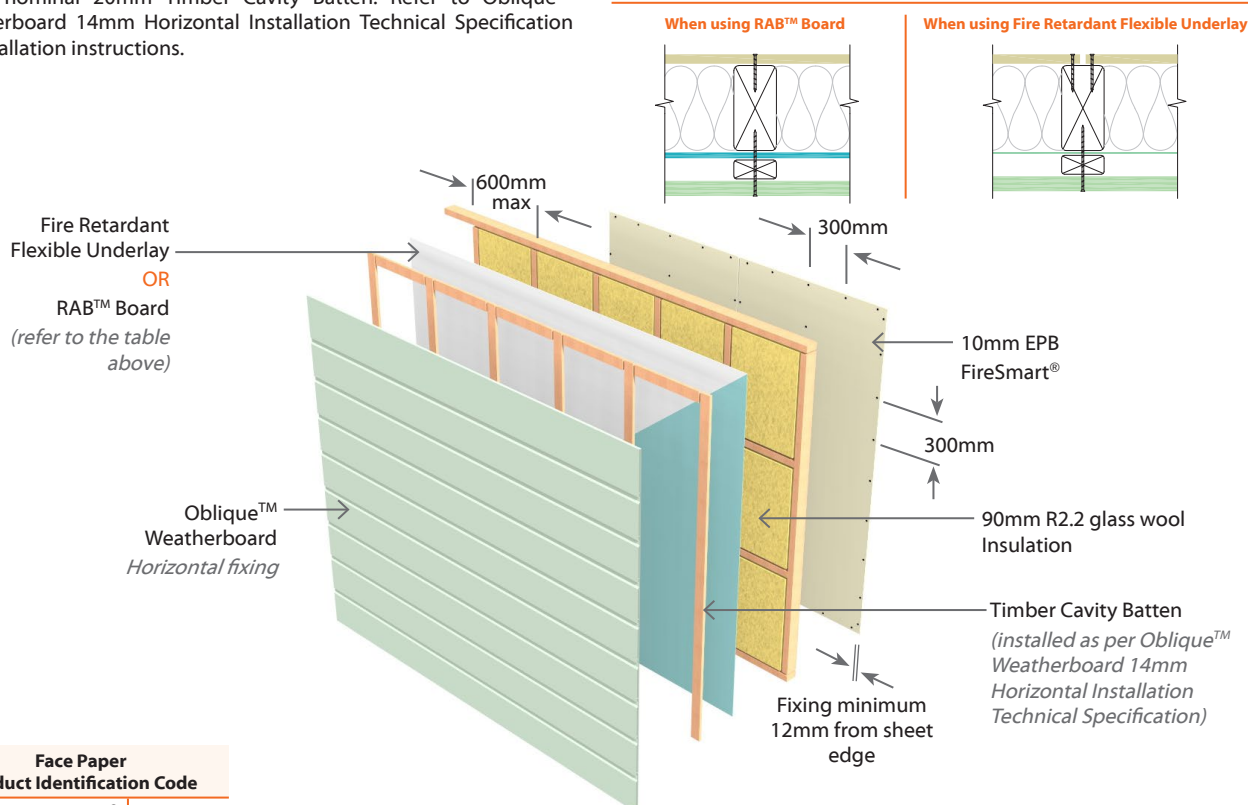
## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| Face Paper<br>Product Identification Code |
|-------------------------------------------|
| 10mm EPB FireSmart®   F10                 |

N.B. The above drawings are for illustrative purposes only.



## EJOv1TL30

## EPB &amp; James Hardie Oblique™ Weatherboard - Vertical

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                       |
|---------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------------------|
| EJOv1TL30     | -F10          | 30/30/30 | R2.2 glass wool | 46                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard vertical to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                          | EH Wind Zone      | Other Wind Zone   |
|--------------------------|-------------------|-------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier | Flexible Underlay |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.  
6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

Use a 20mm James Hardie Horizontal Timber Cavity Batten. Refer to Oblique™ Weatherboard 14mm Vertical Installation Technical Specification for installation instructions.

## Oblique™ Weatherboard Cladding - Vertical

James Hardie Oblique™ Weatherboard cladding fixed vertically to external side of the timber framing. Refer to both Oblique™ Weatherboard 14mm Vertical Installation Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

One layer of 10mm EPB FireSmart lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

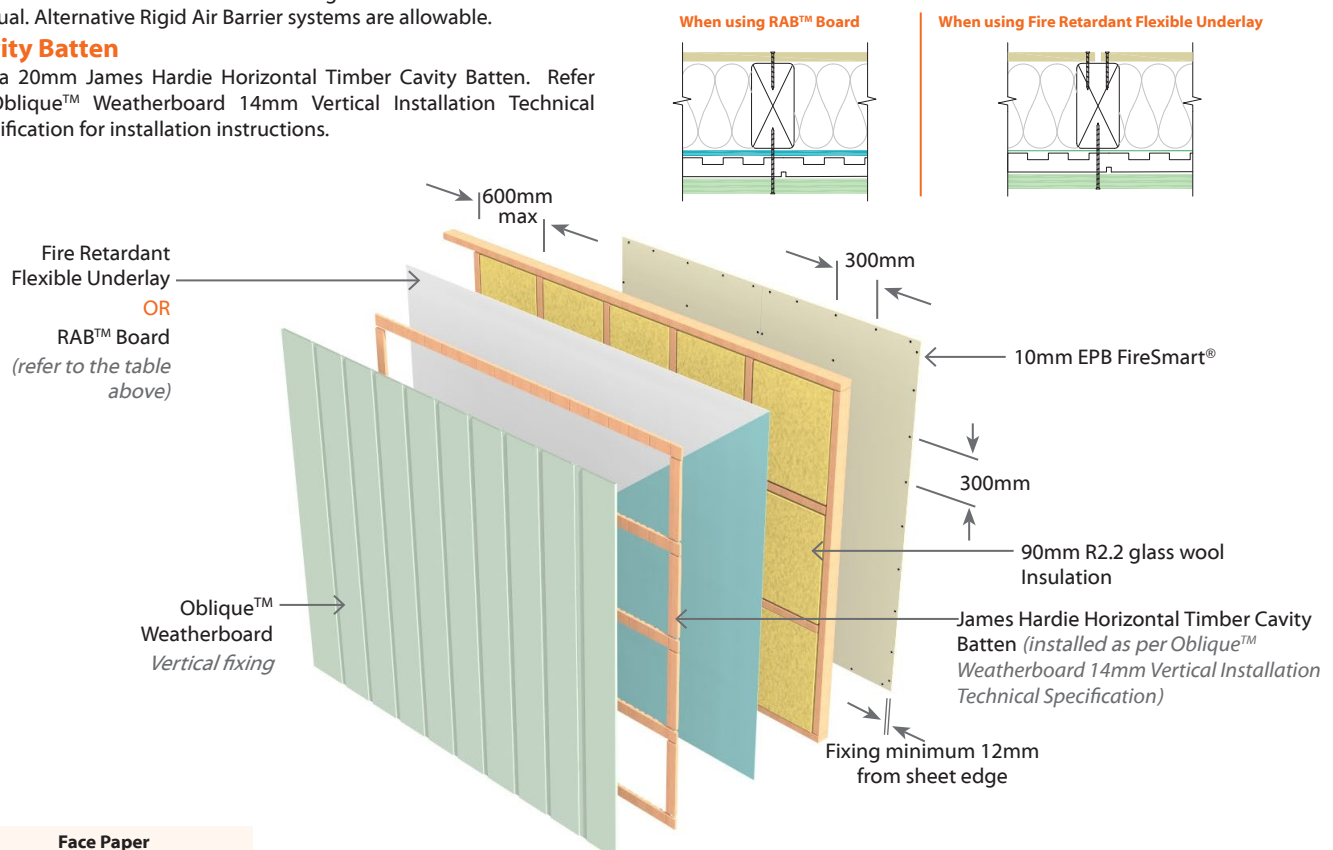
41mm x 6g High Thread Drywall Screws

## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections. Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



Face Paper  
Product Identification Code

10mm EPB FireSmart® | F10

N.B. The above drawings are for illustrative purposes only.



## EJOH1TL60

## EPB &amp; James Hardie Oblique™ Weatherboard - Horizontal

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                         |
|---------------|---------------|----------|-----------------|-------------------|------------------------------------------------------------------------------------------------------------|
| EJOH1TL60     | -F13          | 60/60/60 | R2.2 glass wool | 47                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard horizontal to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                          | EH Wind Zone      | Other Wind Zone   |
|--------------------------|-------------------|-------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier | Flexible Underlay |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

Use a nominal 20mm Timber Cavity Batten. Refer to Oblique™ Weatherboard 14mm Horizontal Installation Technical Specification for installation instructions.

## Oblique™ Weatherboard Cladding - Horizontal

James Hardie Oblique™ Weatherboard cladding fixed horizontally to external side of the timber framing. Refer to both Oblique™ Weatherboard 14mm Horizontal Installation Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

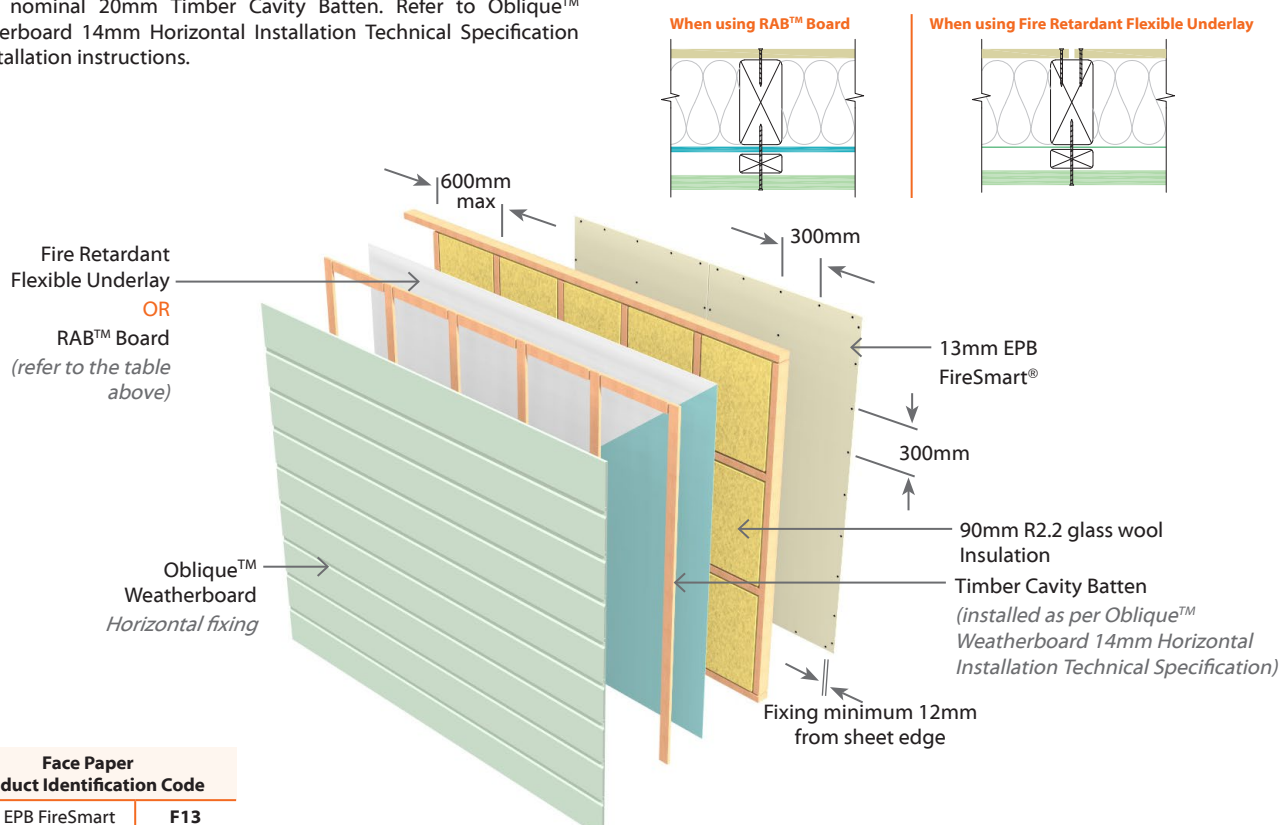
## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

Face Paper  
Product Identification Code

13mm EPB FireSmart | F13

N.B. The above drawings are for illustrative purposes only.



## EJOv1TL60

## EPB &amp; James Hardie Oblique™ Weatherboard - Vertical

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                       |
|---------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------------------|
| EJOv1TL60     | -F13          | 60/60/60 | R2.2 glass wool | 47                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Oblique™ Weatherboard vertical to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                | EH Wind Zone      | Other Wind Zone   |
|----------------|-------------------|-------------------|
| Buildings <10m | Rigid Air Barrier | Flexible Underlay |
| Buildings >10m | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

Use a 20mm James Hardie Horizontal Timber Cavity Batten. Refer to Oblique™ Weatherboard 14mm Vertical Installation Technical Specification for installation instructions.

## Oblique™ Weatherboard Cladding - Vertical

James Hardie Oblique™ Weatherboard cladding fixed vertically to external side of the timber framing. Refer to both Oblique™ Weatherboard 14mm Vertical Installation Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

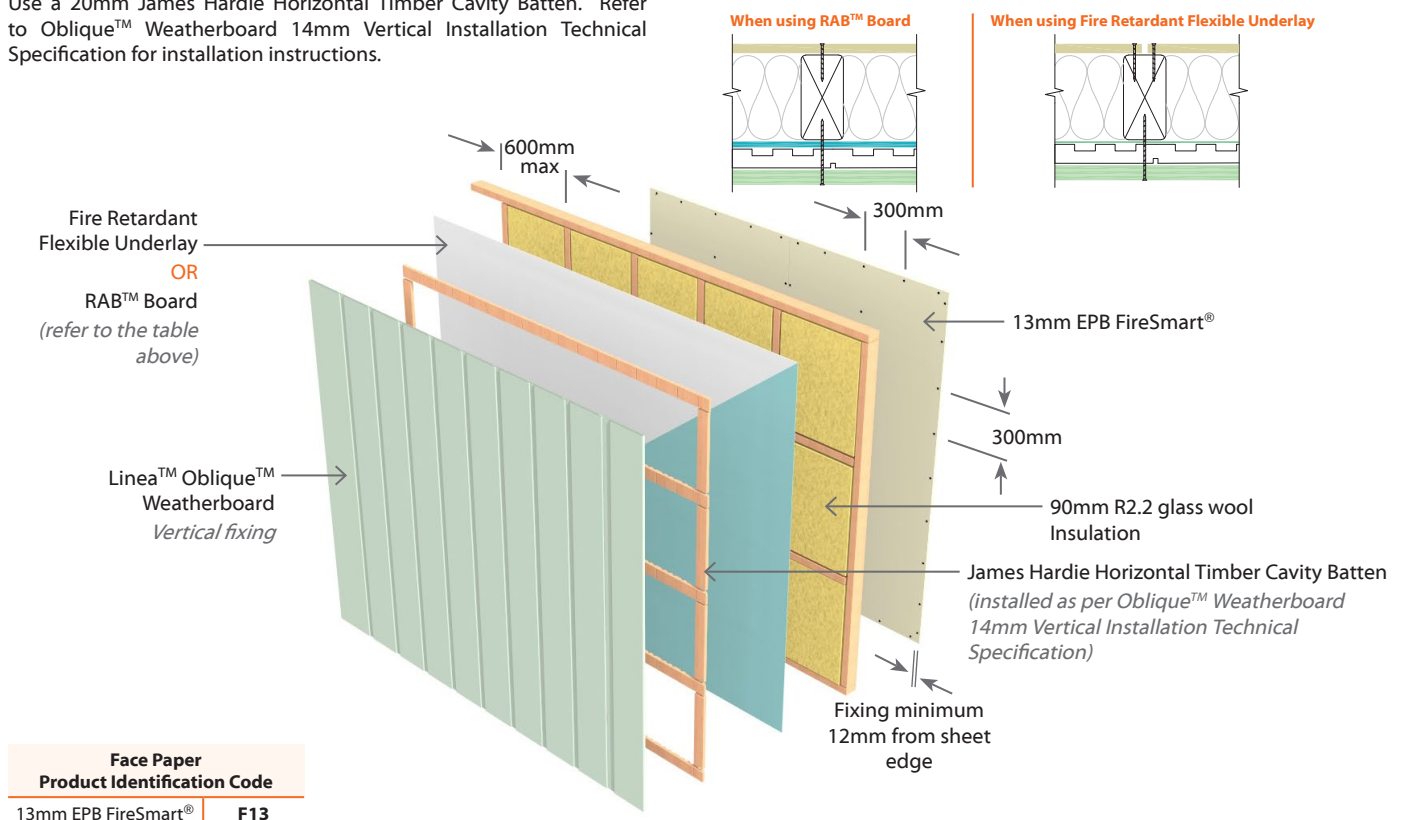
## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.



**EJW1TL30****EPB & Hardie™ Plank Weatherboard****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                      |
|-----------------|---------------|----------|-----------------|-------------------|-----------------------------------------------------------------------------------------|
| <b>EJW1TL30</b> | <b>-F10</b>   | 30/30/30 | R2.2 glass wool | 45                | 1 x 10mm EPB FireSmart® on Internal side<br>Hardie™ Plank Weatherboard to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | <b>EH Wind Zone</b> | <b>Other Wind Zone</b> |
|--------------------------|---------------------|------------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier   | Flexible Underlay      |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier   | Rigid Air Barrier      |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.  
6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to Hardie™ Plank Weatherboards Technical Specification for installation instructions.

When Cladding can be directly fixed without a cavity batten then a fire retardant flexible underlay must be used.

**Hardie™ Plank Weatherboard Cladding**

Hardie™ Plank Weatherboard cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both Hardie™ Plank Weatherboards Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

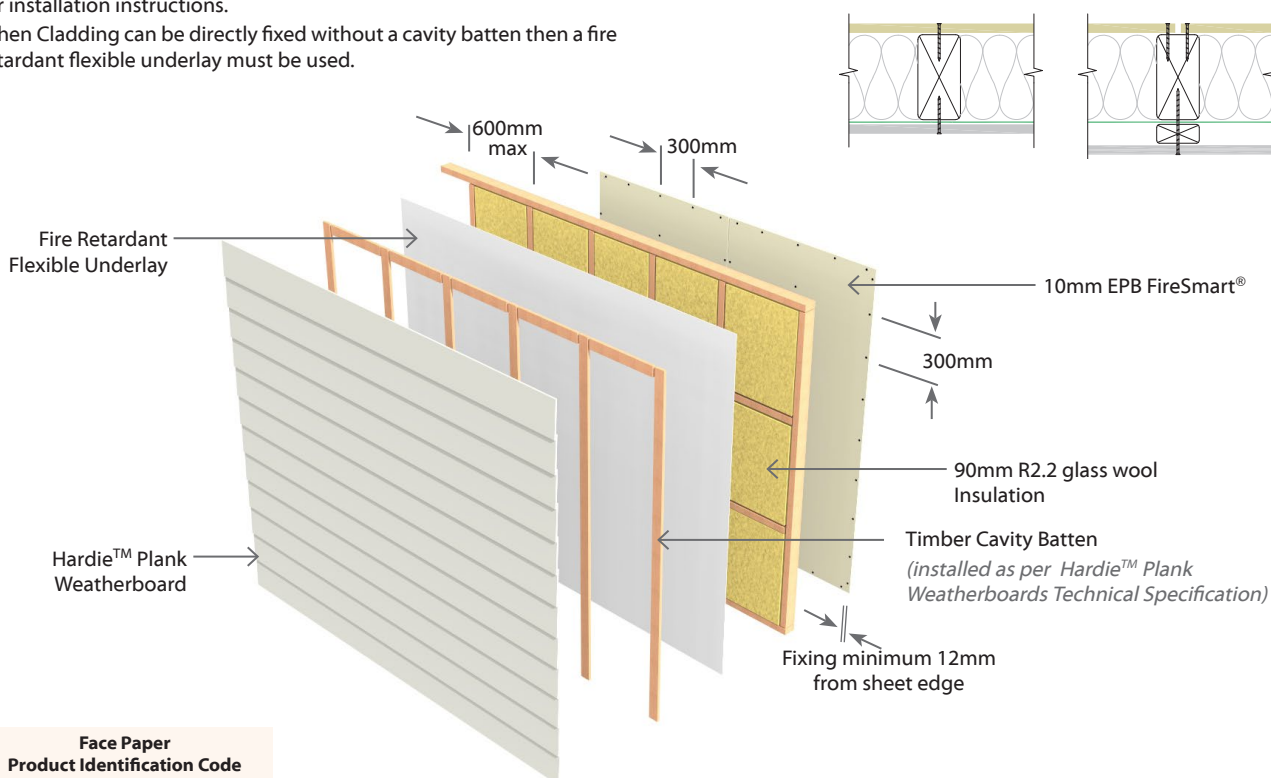
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| Face Paper<br>Product Identification Code |
|-------------------------------------------|
| 10mm EPB FireSmart®   <b>F10</b>          |

*N.B. The above drawings are for illustrative purposes only.*





**EJW1TL60****EPB & Hardie™ Plank Weatherboard****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                      |
|-----------------|---------------|----------|-----------------|-------------------|-----------------------------------------------------------------------------------------|
| <b>EJW1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 46                | 1 x 13mm EPB FireSmart® on Internal side<br>Hardie™ Plank Weatherboard to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | <b>EH Wind Zone</b> | <b>Other Wind Zone</b> |
|--------------------------|---------------------|------------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier   | Flexible Underlay      |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier   | Rigid Air Barrier      |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to Hardie™ Plank Weatherboards Technical Specification for installation instructions.

When Cladding can be directly fixed without a cavity batten then a fire retardant flexible underlay must be used.

**Hardie™ Plank Weatherboard Cladding**

Hardie™ Plank Weatherboard cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both Hardie™ Plank Weatherboards Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

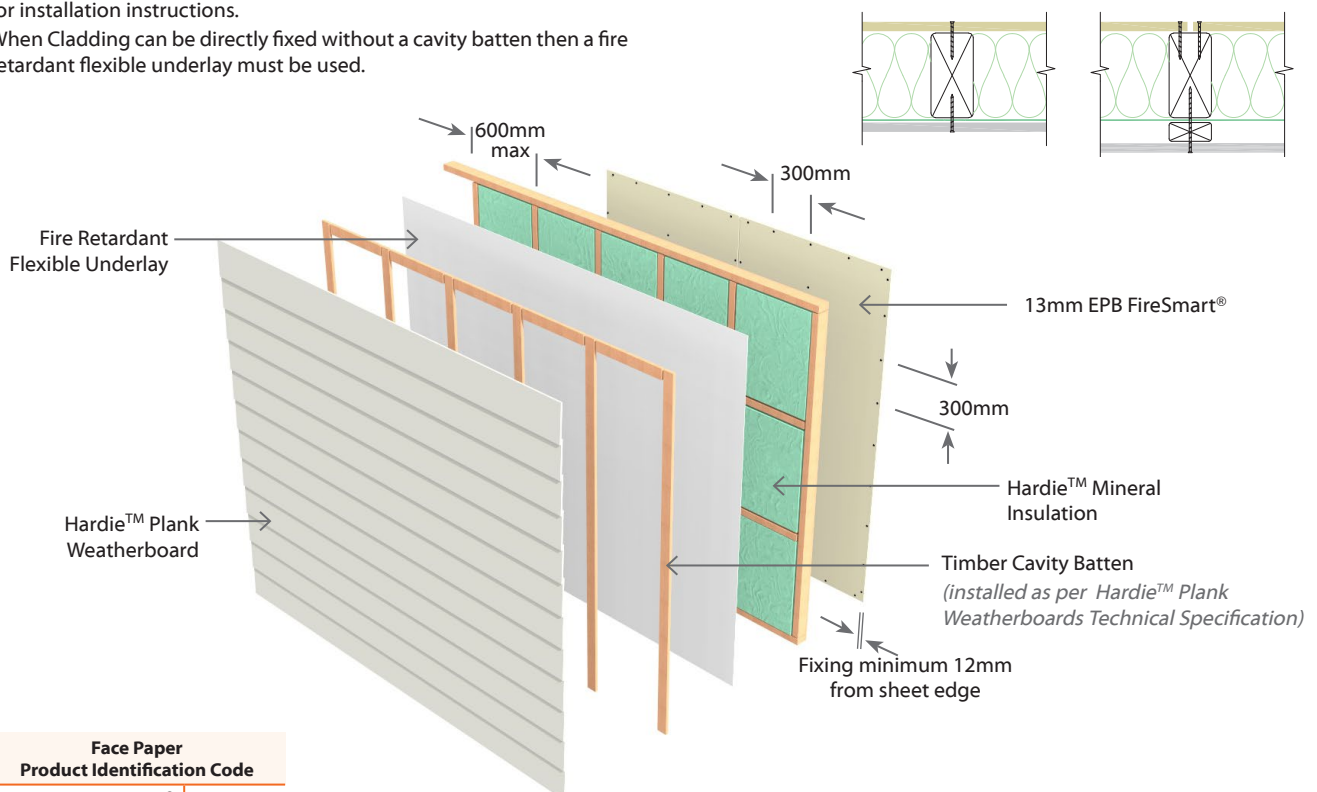
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| Face Paper<br>Product Identification Code |
|-------------------------------------------|
| 13mm EPB FireSmart®   <b>F13</b>          |

N.B. The above drawings are for illustrative purposes only.



**EJSh1TL30****EPB & James Hardie Stria™ Cladding - Horizontal****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                   |
|------------------|---------------|----------|-----------------|-------------------|------------------------------------------------------------------------------------------------------|
| <b>EJSh1TL30</b> | <b>-F10</b>   | 30/30/30 | R2.2 glass wool | 46                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding horizontal to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | <b>EH Wind Zone</b> | <b>Other Wind Zone</b> |
|--------------------------|---------------------|------------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier   | Flexible Underlay      |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier   | Rigid Air Barrier      |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

Use a nominal 20mm Timber Cavity Batten. Refer to Stria™ Cladding Timber Cavity Batten Horizontal Technical Specification for installation instructions.

**James Hardie Stria™ Cladding - Horizontal**

James Hardie Stria™ Cladding fixed horizontally to external side of the timber framing. Refer to both Stria™ Cladding Timber Cavity Batten Horizontal Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

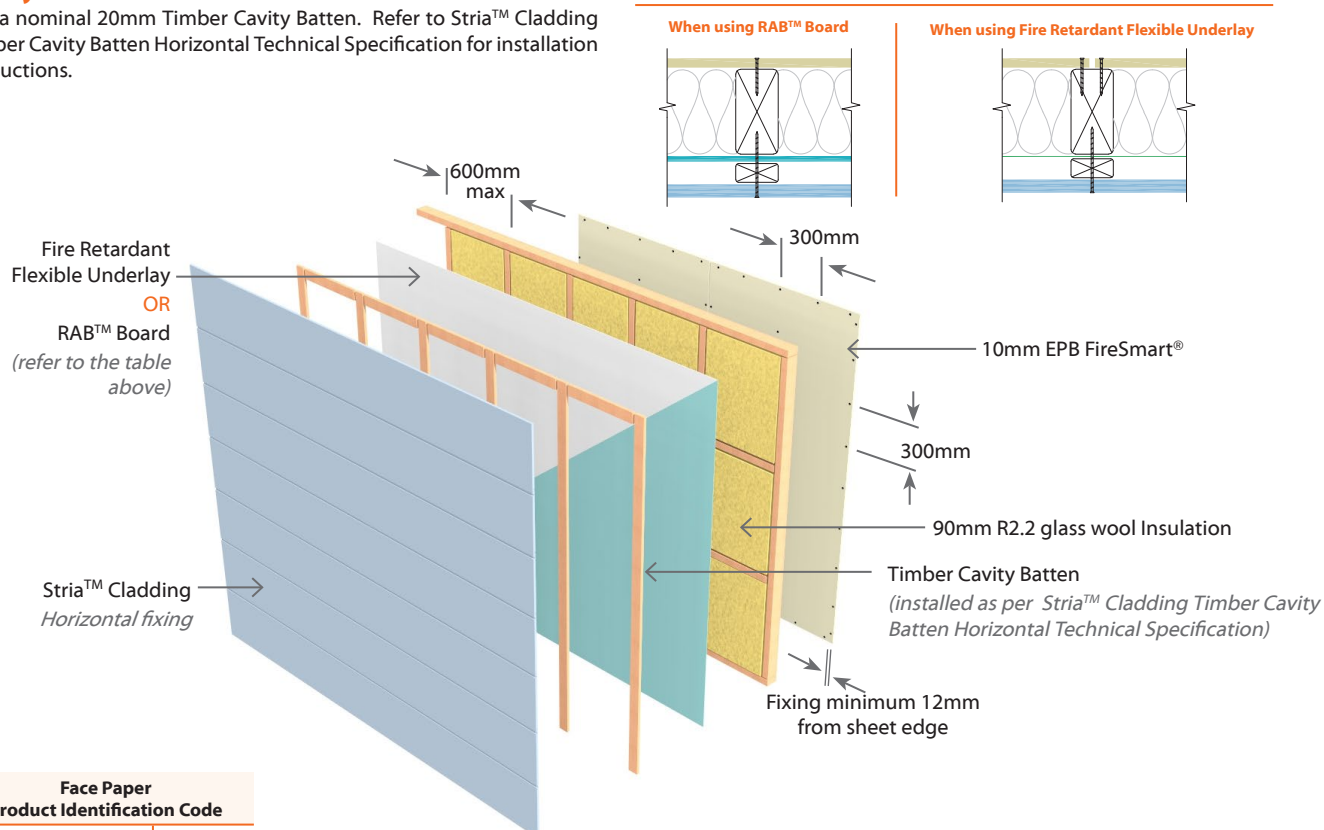
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.

## EJSv1TL30

## EPB &amp; James Hardie Stria™ Cladding - Vertical

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                 |
|---------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------------|
| EJSv1TL30     | -F10          | 30/30/30 | R2.2 glass wool | 46                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding vertical to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                          | EH Wind Zone      | Other Wind Zone   |
|--------------------------|-------------------|-------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier | Flexible Underlay |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.  
6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

Use a 20mm James Hardie Horizontal Timber Cavity Batten. Refer to Stria™ Cladding Vertical Technical Specification for installation instructions.

## James Hardie Stria™ Cladding - Vertical

James Hardie Stria™ Cladding fixed vertically to external side of the timber framing. Refer to both Stria™ Cladding Vertical Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

## Fastener Centres

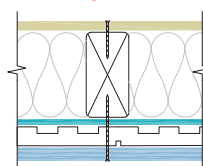
Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

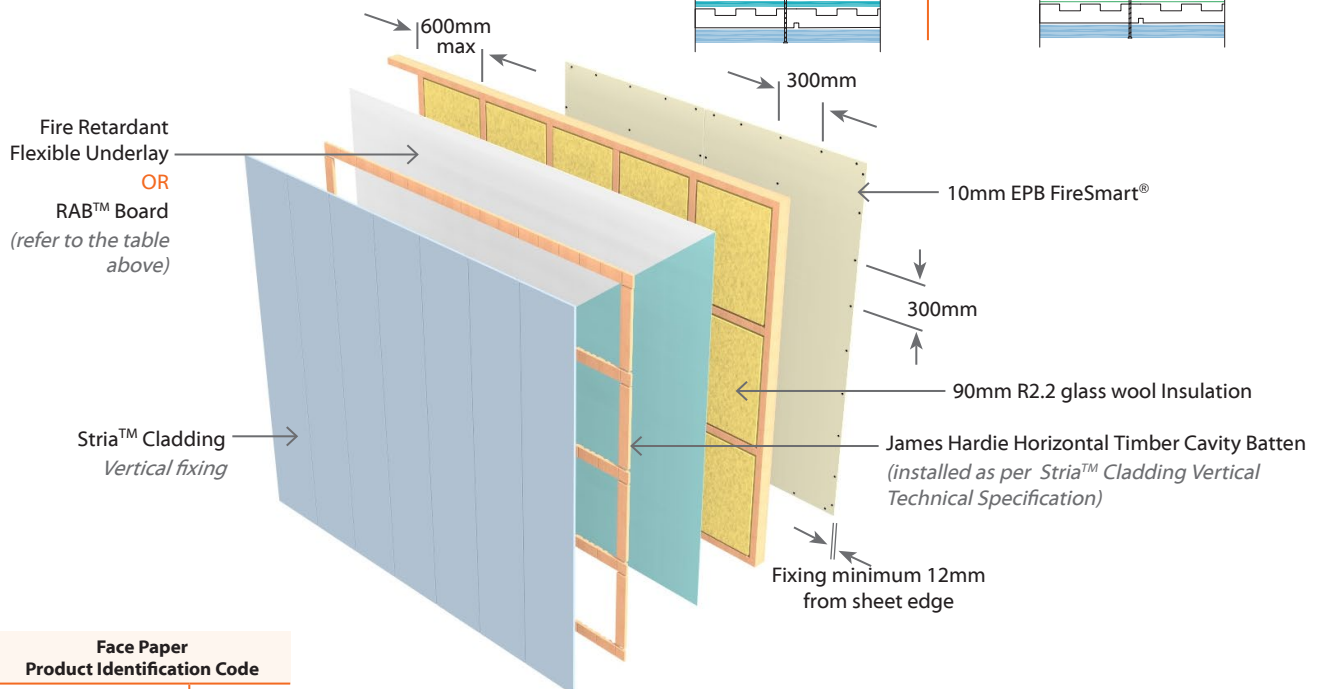
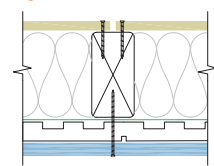
## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

When using RAB™ Board



When using Fire Retardant Flexible Underlay



Face Paper  
Product Identification Code

10mm EPB FireSmart® | F10

N.B. The above drawings are for illustrative purposes only.





**EJSh1TL60****EPB & James Hardie Stria™ Cladding - Horizontal****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                   |
|------------------|---------------|----------|-----------------|-------------------|------------------------------------------------------------------------------------------------------|
| <b>EJSh1TL60</b> | <b>-F13</b>   | 60/60/60 | R2.2 glass wool | 47                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding horizontal to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | EH Wind Zone      | Other Wind Zone   |
|--------------------------|-------------------|-------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier | Flexible Underlay |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier | Rigid Air Barrier |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

Use a nominal 20mm Timber Cavity Batten. Refer to Stria™ Cladding Timber Cavity Batten Horizontal Technical Specification for installation instructions.

**James Hardie Stria™ Cladding - Horizontal**

James Hardie Stria™ Cladding fixed horizontally to external side of the timber framing. Refer to both Stria™ Cladding Timber Cavity Batten Horizontal Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

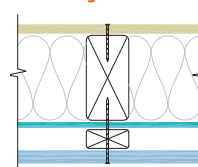
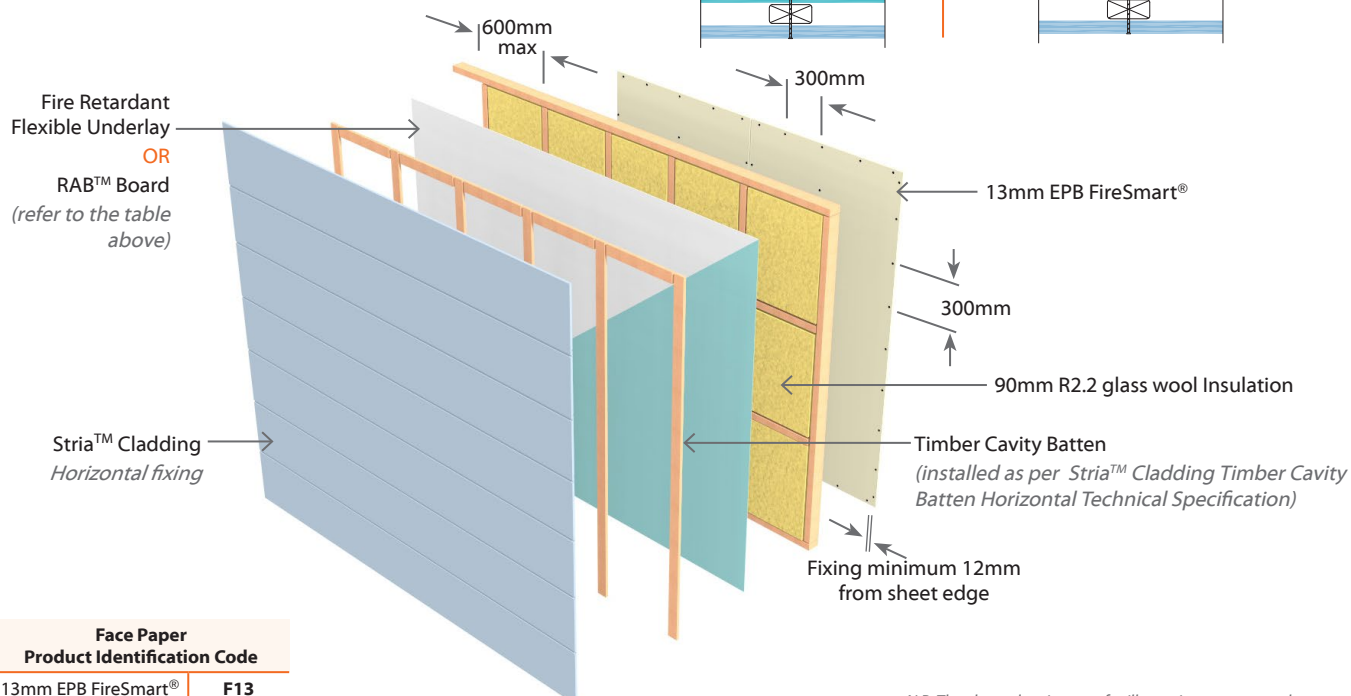
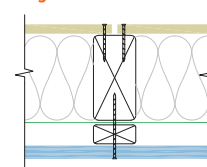
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

**When using RAB™ Board****When using Fire Retardant Flexible Underlay****Face Paper****Product Identification Code**

13mm EPB FireSmart® | **F13**

N.B. The above drawings are for illustrative purposes only.



**EJSv1TL60****EPB & James Hardie Stria™ Cladding - Vertical****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                 |
|------------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------------|
| <b>EJSv1TL60</b> | <b>-F13</b>   | 60/60/60 | R2.2 glass wool | 47                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding vertical to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | <b>EH Wind Zone</b> | <b>Other Wind Zone</b> |
|--------------------------|---------------------|------------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier   | Flexible Underlay      |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier   | Rigid Air Barrier      |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.  
6mm RAB™: Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™: Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

Use a 20mm James Hardie Horizontal Timber Cavity Batten. Refer to Stria™ Cladding Vertical Technical Specification for installation instructions.

**James Hardie Stria™ Cladding - Vertical**

James Hardie Stria™ Cladding fixed vertically to external side of the timber framing. Refer to both Stria™ Cladding Vertical Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

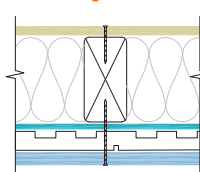
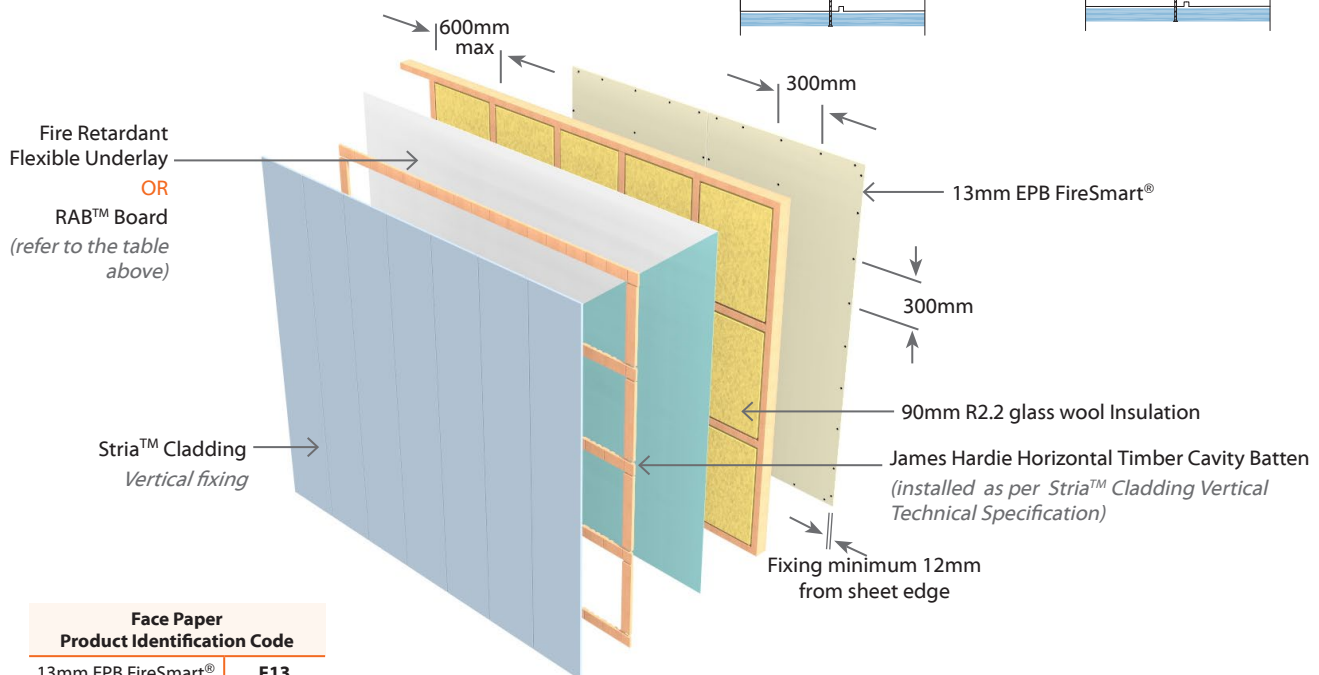
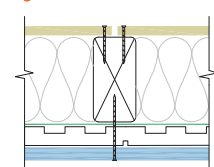
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

**When using RAB™ Board****When using Fire Retardant Flexible Underlay**

N.B. The above drawings are for illustrative purposes only.



**EJRS1TL30****EPB & James Hardie Stria™ Cladding & RAB™ Board with Hardie™ CLD™ Batts**

External Wall - Timber Frame

Two Way FRR

Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                                     |
|------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EJRS1TL30</b> | <b>-F10</b>   | 30/30/30 | R2.2 glass wool | 46                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding and RAB™ Board with<br>Hardie™ CLD™ Structural Cavity Batten to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres  
Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten. Refer to Stria™ Cladding Hardie™ CLD™ Structural Cavity Batten Technical Specification for installation instructions.

**James Hardie Stria™ Cladding**

James Hardie Stria™ Cladding fixed horizontally to external side of the timber framing. Refer to both Stria™ Cladding Hardie™ CLD™ Structural Cavity Batten Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

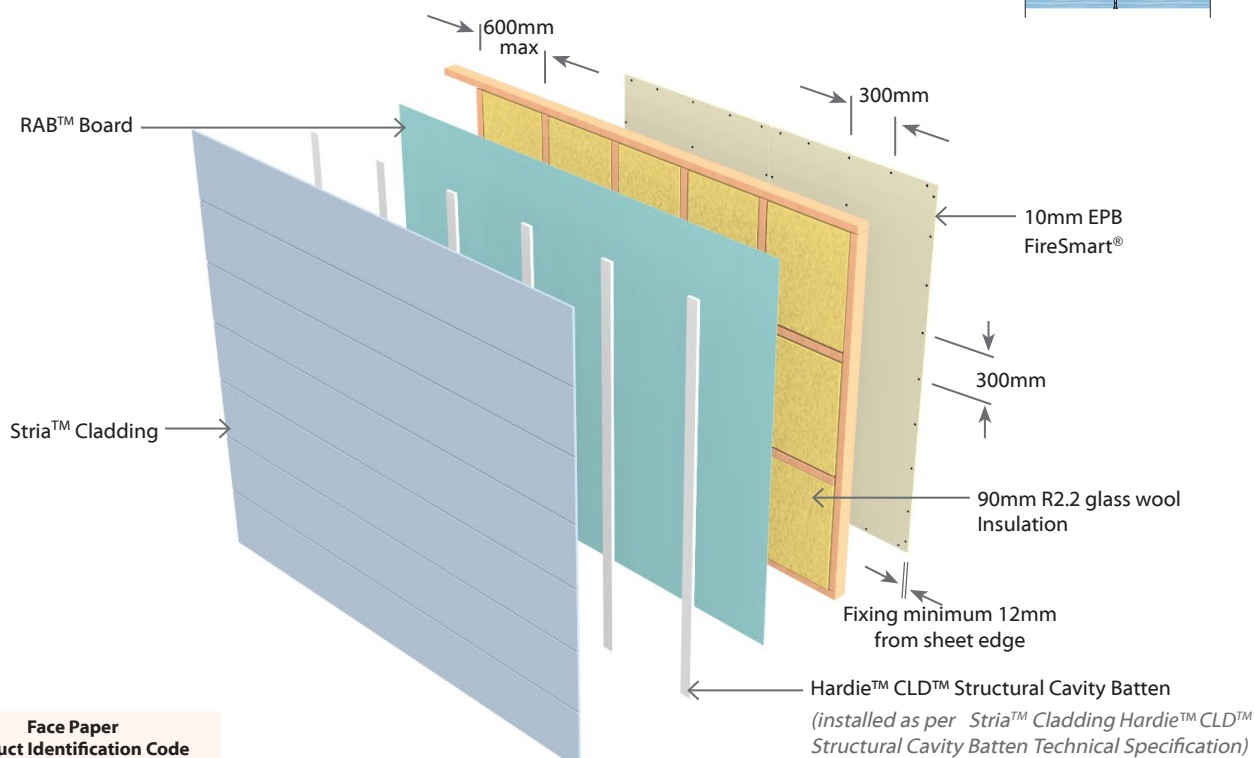
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.

**EJRS1TL60****EPB & James Hardie Stria™ Cladding & RAB™ Board with Hardie™ CLD™ Battens**

External Wall - Timber Frame

Two Way FRR

Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                                     |
|------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EJRS1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 47                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Stria™ Cladding and RAB™ Board with<br>Hardie™ CLD™ Structural Cavity Batten to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.  
6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres  
Fixing to be 12mm from sheet edges  
Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten. Refer to Stria™ Cladding Hardie™ CLD™ Structural Cavity Batten Technical Specification for installation instructions.

**James Hardie Stria™ Cladding**

James Hardie Stria™ Cladding fixed horizontally to external side of the timber framing. Refer to both Stria™ Cladding Hardie™ CLD™ Structural Cavity Batten Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

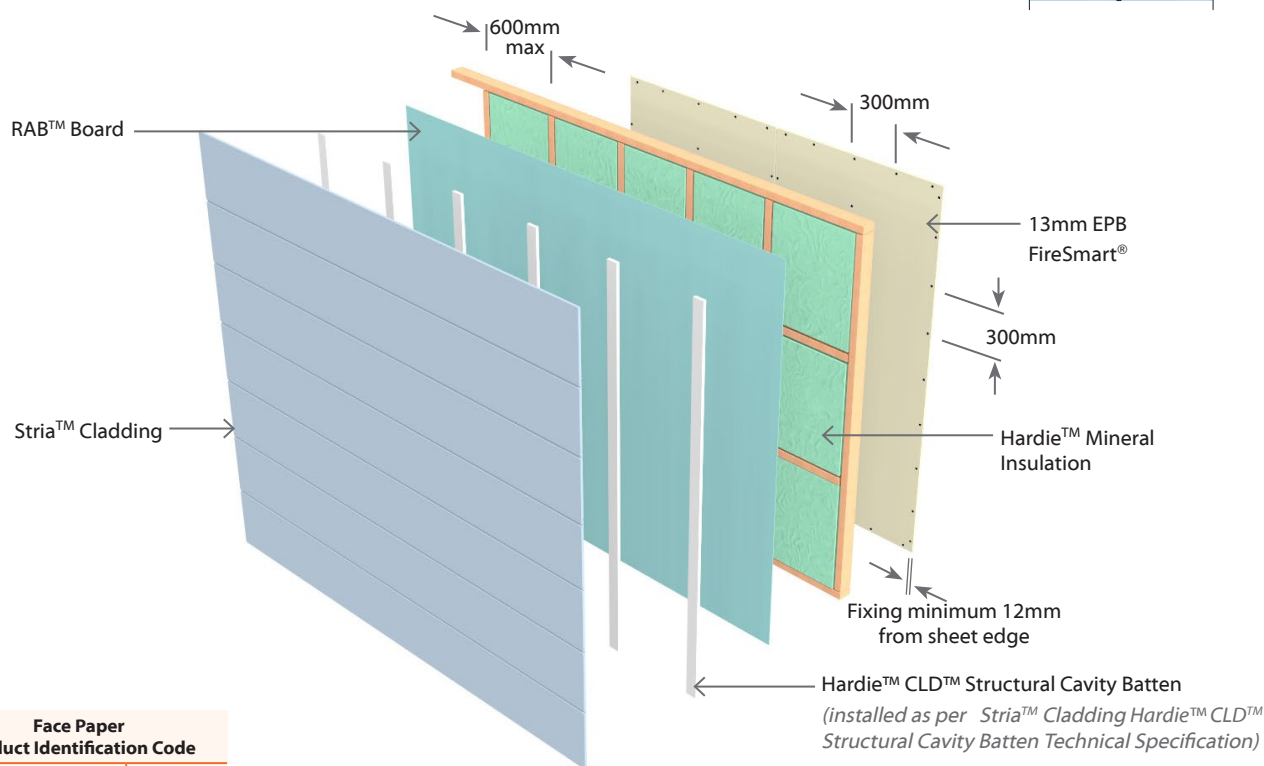
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



**Face Paper  
Product Identification Code**

13mm EPB FireSmart® | **F13**

*N.B. The above drawings are for illustrative purposes only.*





## EJF1TL30

## EPB &amp; James Hardie Hardie™ Flex Sheet

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                           |
|---------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------|
| EJF1TL30      | -F10          | 30/30/30 | R2.2 glass wool | 42                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Hardie™ Flex Sheet to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | EH Wind Zone      | Other Wind Zone   |
|--------------------------|-------------------|-------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier | Flexible Underlay |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier | Rigid Air Barrier |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres  
Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to James Hardie Hardie™ Flex Sheet Technical Specification. When Cladding can be directly fixed without a cavity batten then a fire retardant flexible underlay must be used.

**James Hardie Hardie™ Flex Sheet Cladding**

James Hardie Hardie™ Flex Sheet cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both James Hardie Hardie™ Flex Sheet Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

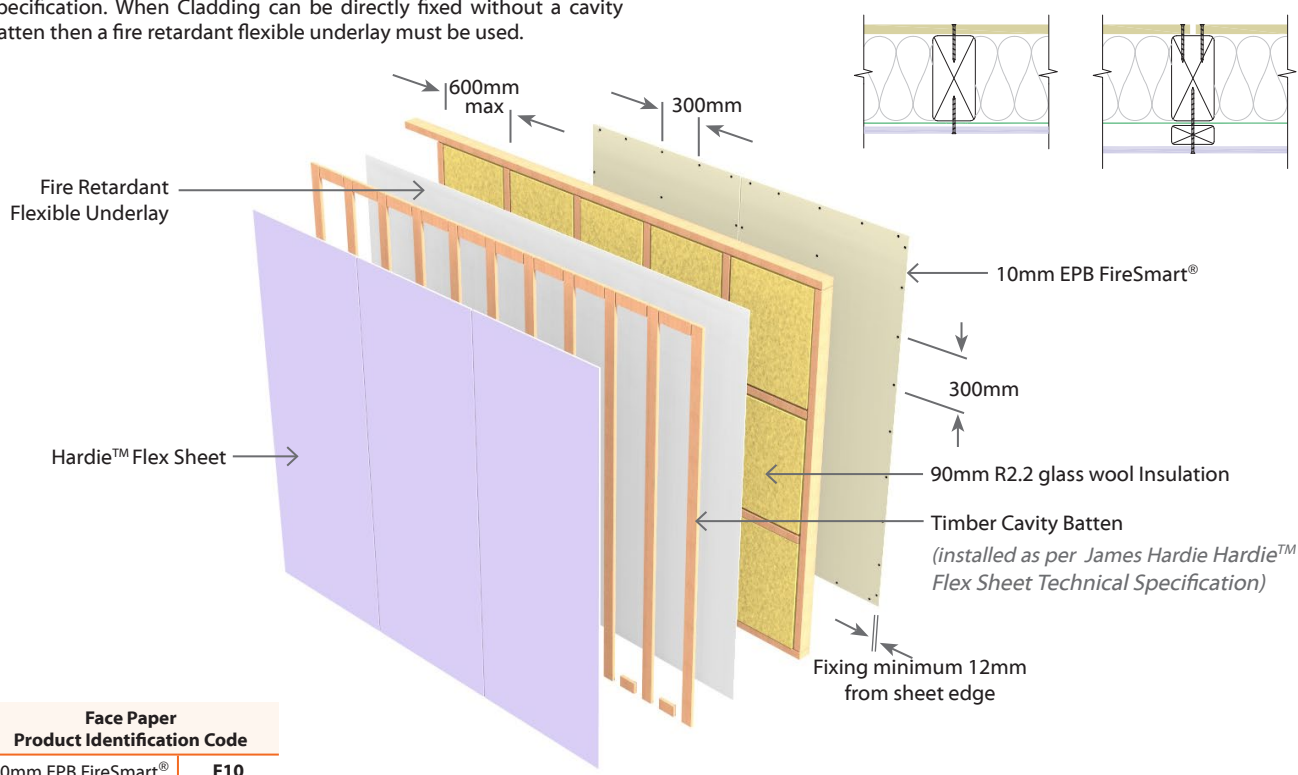
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.



**EJF1TL60****EPB & James Hardie Hardie™ Flex Sheet****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                           |
|-----------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------|
| <b>EJF1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 43                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Hardie™ Flex Sheet to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay**

For the type of allowable underlay refer to table below.

|                          | <b>EH Wind Zone</b> | <b>Other Wind Zone</b> |
|--------------------------|---------------------|------------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier   | Flexible Underlay      |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier   | Rigid Air Barrier      |

**Fire Retardant Flexible Underlay**

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

**Rigid Air Barrier**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres  
9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

**Cavity Batten**

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to James Hardie Hardie™ Flex Sheet Technical Specification. When Cladding can be directly fixed without a cavity batten then a fire retardant flexible underlay must be used.

**James Hardie Hardie™ Flex Sheet Cladding**

James Hardie Hardie™ Flex Sheet cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both James Hardie Hardie™ Flex Sheet Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

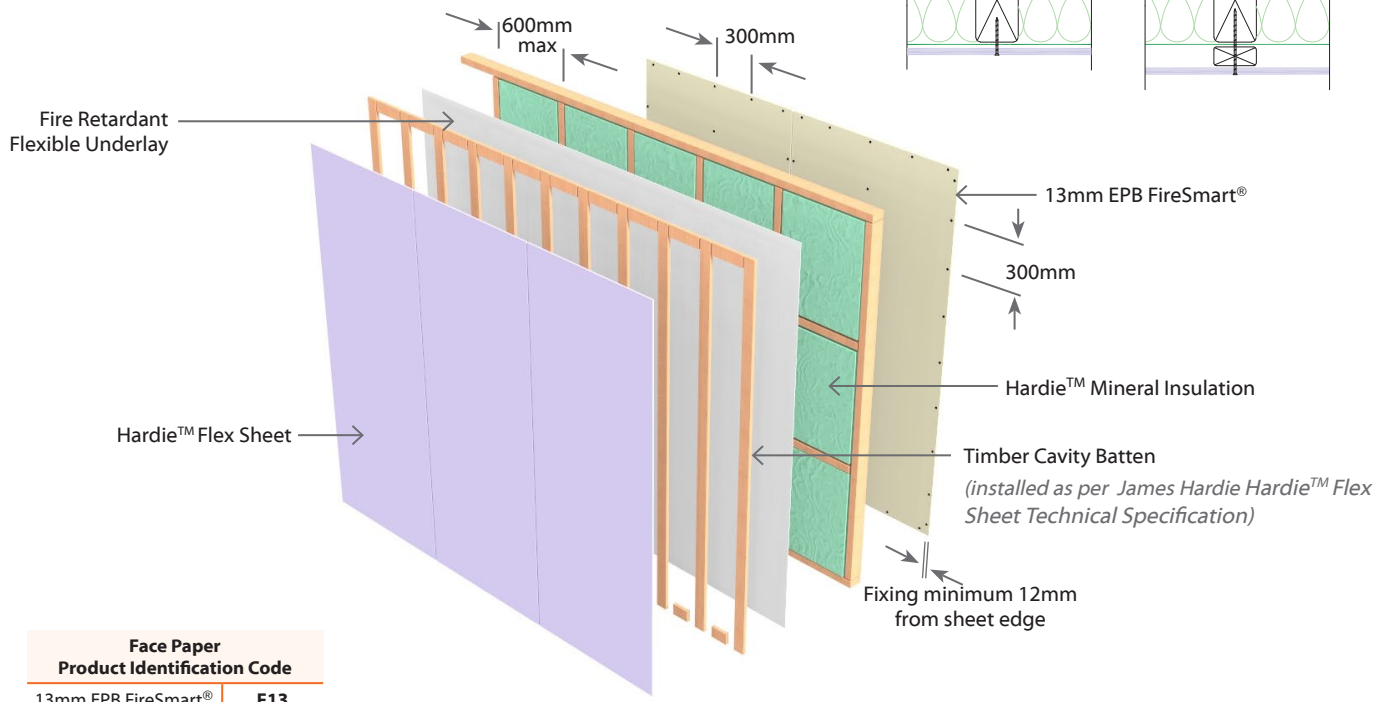
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| Face Paper<br>Product Identification Code |
|-------------------------------------------|
| 13mm EPB FireSmart®   <b>F13</b>          |

*N.B. The above drawings are for illustrative purposes only.*





# EJA1TL30

## EPB & James Hardie Axon™ Panel

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation         | Noise Control STC | Lining Requirement                                                                    |
|---------------|---------------|----------|--------------------|-------------------|---------------------------------------------------------------------------------------|
| EJA1TL30      | -F10          | 30/30/30 | R2.2<br>glass wool | 41                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                          | <b>EH Wind Zone</b> | <b>Other Wind Zone</b> |
|--------------------------|---------------------|------------------------|
| <b>Buildings &lt;10m</b> | Rigid Air Barrier   | Flexible Underlay      |
| <b>Buildings &gt;10m</b> | Rigid Air Barrier   | Rigid Air Barrier      |

### Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

### Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

**9mm RAB™ Board :** Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to Axon™ Panel Timber Cavity Batten Technical Specification. When Cladding is allowed to be directly fixed without a cavity batten then a fire retardant flexible underlay must be used. Refer to Axon™ Panel Direct Fixed Technical Specification.

## James Hardie Axon™ Panel Cladding

James Hardie Axon™ Panel cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both Axon™ Panel Timber Cavity Batten Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

## EPB® Plasterboard Lining

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

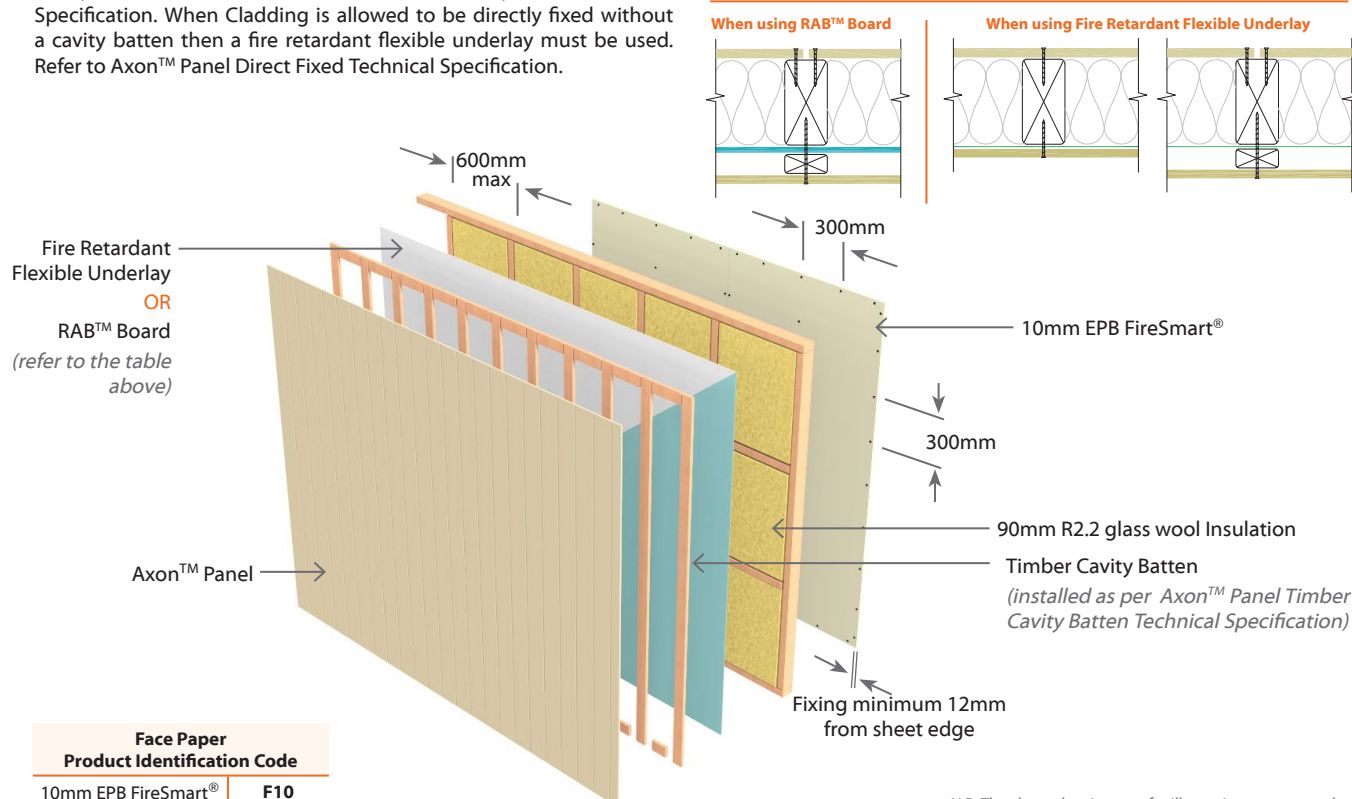
## Fastener Centres

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



*N.B. The above drawings are for illustrative purposes only.*

## EJA1TL60

## EPB &amp; James Hardie Axon™ Panel

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                    |
|---------------|---------------|----------|-----------------|-------------------|---------------------------------------------------------------------------------------|
| EJA1TL60      | -F13          | 60/60/60 | Hardie™ Mineral | 42                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel to External side |

## Framing, Wall Height, Load and Framing Dimension

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

## Underlay

For the type of allowable underlay refer to table below.

|                | EH Wind Zone      | Other Wind Zone   |
|----------------|-------------------|-------------------|
| Buildings <10m | Rigid Air Barrier | Flexible Underlay |
| Buildings >10m | Rigid Air Barrier | Rigid Air Barrier |

## Fire Retardant Flexible Underlay

Install any Fire Retardant Flexible Underlay beneath the claddings, that complies with Table 23 of E2/AS1 and has a flammability index not exceeding 5.

## Rigid Air Barrier

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 200mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 200mm centres

Fixing to be 12mm from sheet edges. Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual. Alternative Rigid Air Barrier systems are allowable.

## Cavity Batten

When Cavity Batten is required, use a nominal 20mm Timber Cavity Batten. Refer to Axon™ Panel Timber Cavity Batten Technical Specification. When Cladding is allowed to be directly fixed without a cavity batten then a fire retardant flexible underlay must be used. Refer to Axon™ Panel Direct Fixed Technical Specification.

## James Hardie Axon™ Panel Cladding

James Hardie Axon™ Panel cladding to external side of the timber framing. Consider the nail length required depending on the type of fixing i.e. Cavity fixing or Direct fixing. Refer to both Axon™ Panel Timber Cavity Batten Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

## Wall Insulation

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

## EPB® Plasterboard Lining

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

## Fixing of EPB® Plasterboard Internal Linings

## Fasteners

41mm x 6g High Thread Drywall Screws

## Fastener Centres

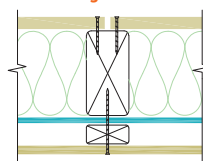
Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

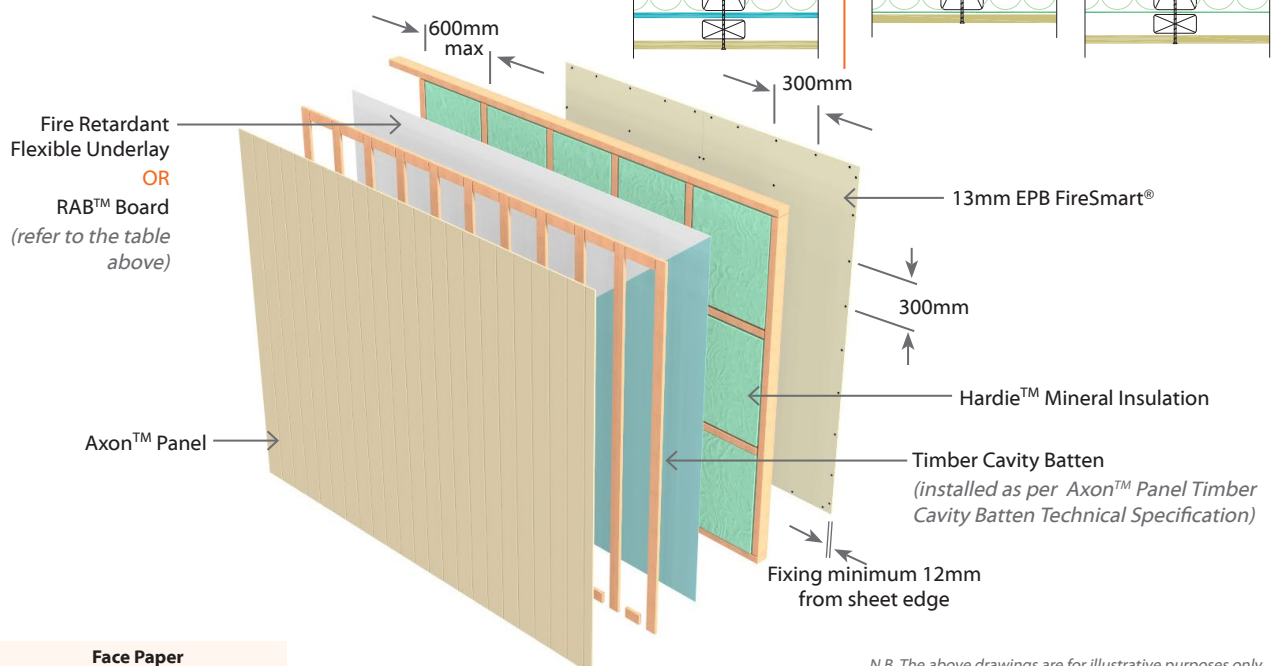
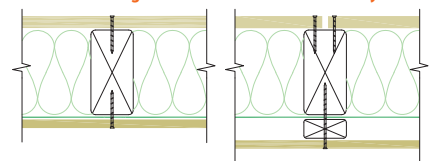
## Jointing and Finishing of EPB® Plasterboard

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

## When using RAB™ Board



## When using Fire Retardant Flexible Underlay



Face Paper  
Product Identification Code

13mm EPB FireSmart® F13

N.B. The above drawings are for illustrative purposes only.



**EJRA1TL30****EPB & James Hardie Axon™ Panel & RAB™ Board on Hardie™ CLD™ Battens**

External Wall - Timber Frame

Two Way FRR

Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                                 |
|------------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EJRA1TL30</b> | <b>-F10</b>   | 30/30/30 | R2.2 glass wool | 45                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel and RAB™ Board<br>with Hardie™ CLD™ Structural Cavity Batten to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten. Refer to Axon™ Panel Hardie™ CLD™ Structural Cavity Batten Technical Specification.

**James Hardie Axon™ Panel Cladding**

James Hardie Axon™ Panel cladding to external side of the timber framing. Refer to both Axon™ Panel Hardie™ CLD™ Structural Cavity Batten Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

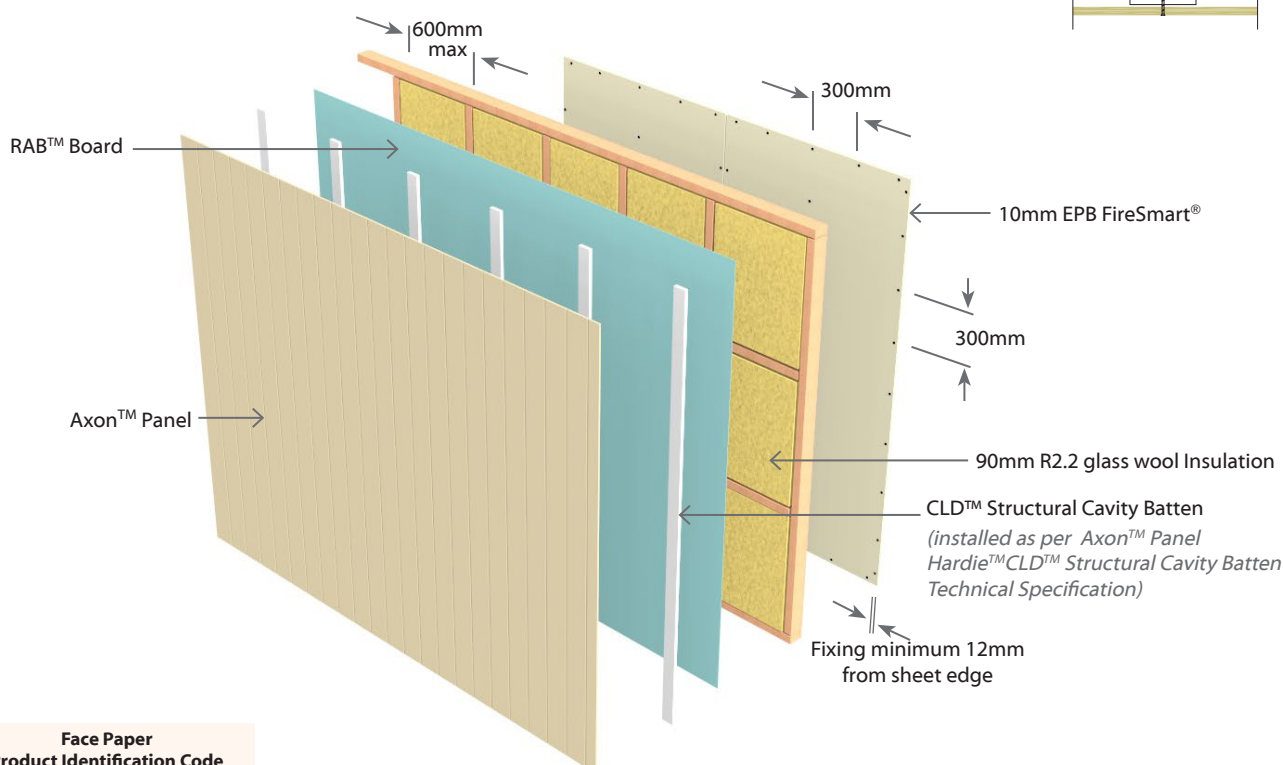
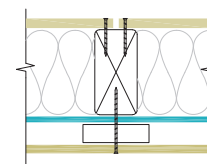
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

**Face Paper****Product Identification Code**

10mm EPB FireSmart® | **F10**

N.B. The above drawings are for illustrative purposes only.



**EJRA1TL60****EPB & James Hardie Axon™ Panel & RAB™ Board on Hardie™ CLD™ Batts**

External Wall - Timber Frame

Two Way FRR

Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                                 |
|------------------|---------------|----------|-----------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EJRA1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 46                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie Axon™ Panel and RAB™ Board<br>with Hardie™ CLD™ Structural Cavity Batten to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres  
Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten. Refer to Axon™ Panel Hardie™ CLD™ Structural Cavity Batten Technical Specification.

**James Hardie Axon™ Panel Cladding**

James Hardie Axon™ Panel cladding to external side of the timber framing. Refer to both Axon™ Panel Hardie™ CLD™ Structural Cavity Batten Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

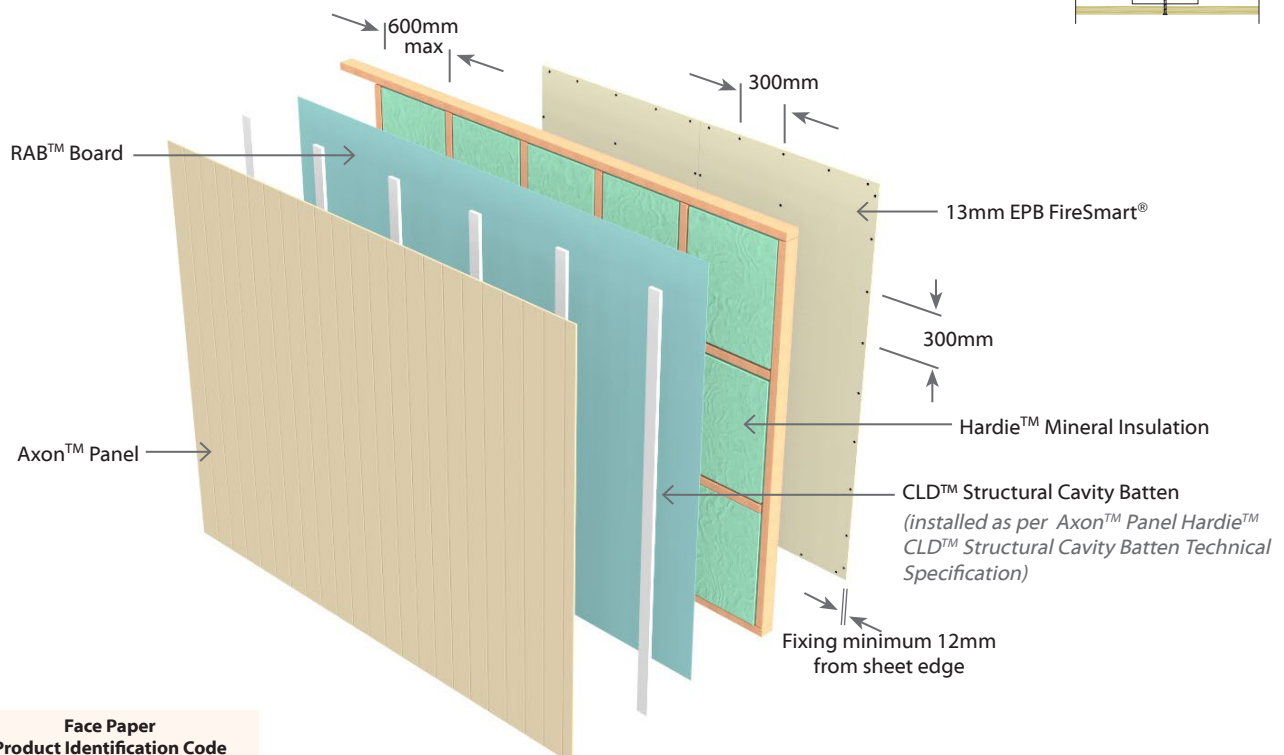
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



**Face Paper  
Product Identification Code**

13mm EPB FireSmart® | **F13**

N.B. The above drawings are for illustrative purposes only.





**EJR1TL30****EPB & JH ExoTec™ Facade Panel & RAB™ Board with Top Hat System****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                |
|-----------------|---------------|----------|-----------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>EJR1TL30</b> | <b>-F10</b>   | 30/30/30 | R2.2 glass wool | 47                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie ExoTec™ Facade Panel and RAB™ Board with Top hat system to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres  
Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Use ExoTec™ Top hat system. Refer to ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification

**James Hardie ExoTec™ Facade Panel Cladding**

James Hardie ExoTec™ Facade Panel cladding to external side of the timber framing. Refer to both ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

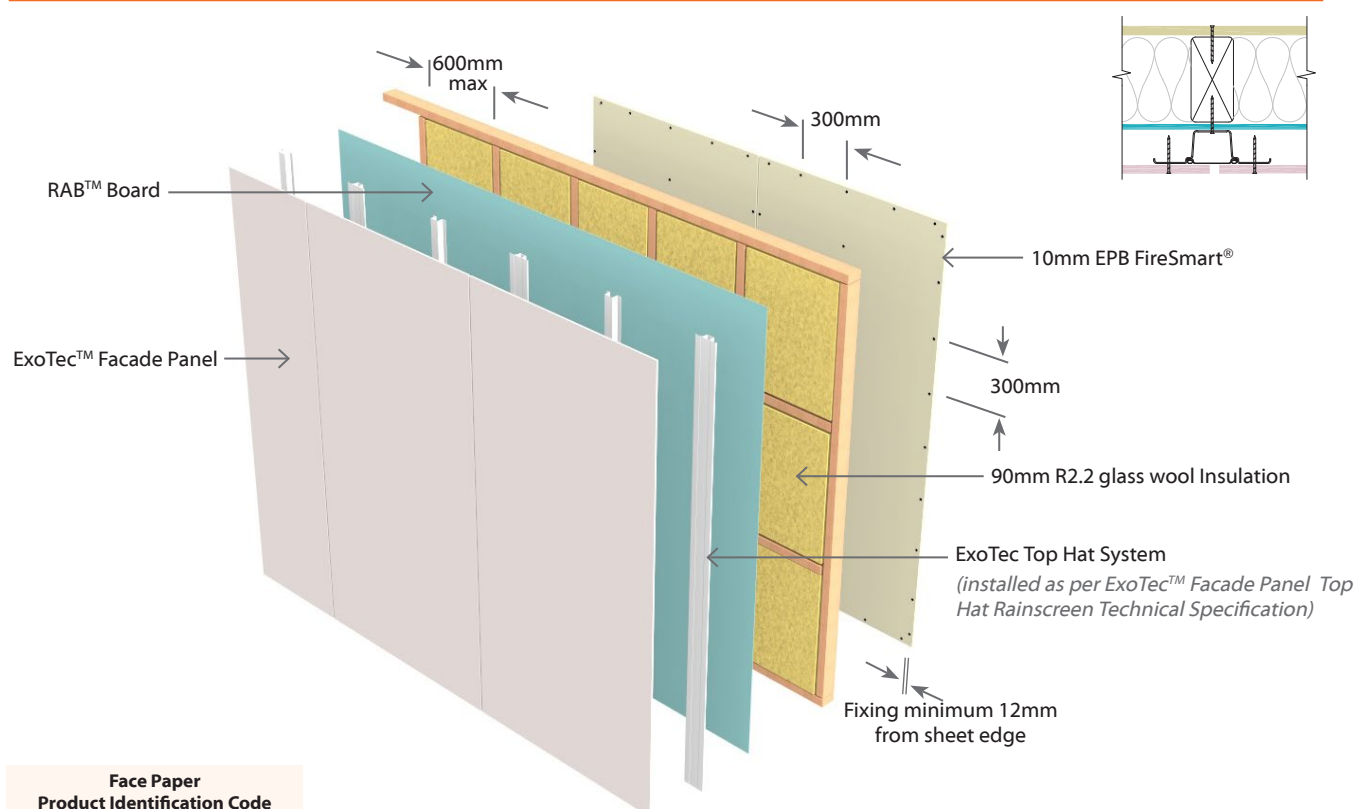
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.

**EJR1TL60****EPB & JH ExoTec™ Facade Panel & RAB™ Board with Top Hat System****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                |
|-----------------|---------------|----------|-----------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>EJR1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 48                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie ExoTec™ Facade Panel and RAB™ Board with Top hat system to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
  - Nogs must be in place at a maximum of 800mm centres.
  - Maximum stud spacing's are 600mm centres.
  - The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4
- Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie Home RAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Use ExoTec™ Top hat system. Refer to ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification

**James Hardie ExoTec™ Facade Panel Cladding**

James Hardie ExoTec™ Facade Panel cladding to external side of the timber framing. Refer to both ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification AND the James Hardie Fire & Acoustic Design Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

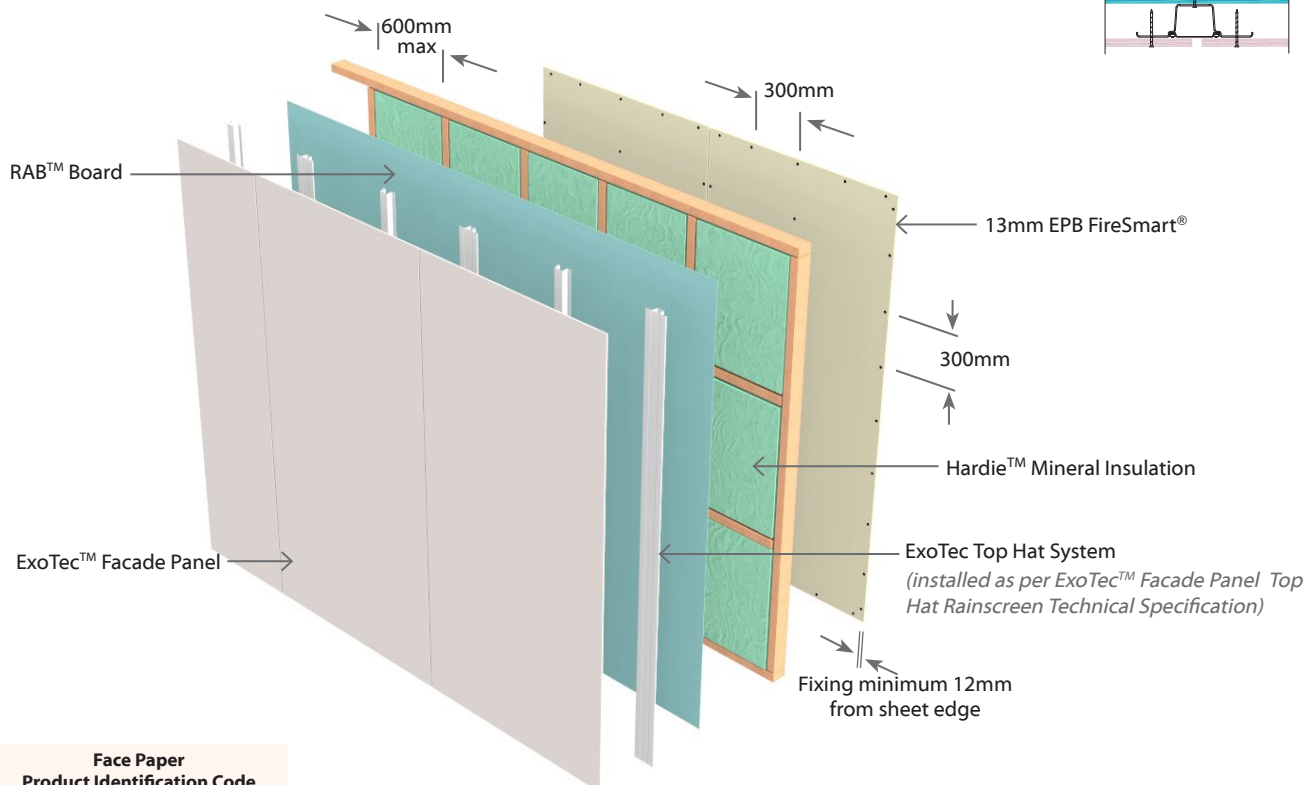
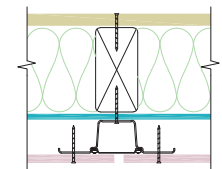
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB Plasterboard Installation Guide.



**Face Paper  
Product Identification Code**

13mm EPB FireSmart® | **F13**

*N.B. The above drawings are for illustrative purposes only.*





## EJRN1TL30

## EPB &amp; James Hardie RAB™ Board &amp; a Weathertight Cladding

## Two Way FRR

## External Wall - Timber Frame

## Load Bearing

| System Number | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                |
|---------------|---------------|----------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|
| EJRN1TL30     | -F10          | 30/30/30 | R2.2 glass wool | 42                | 1 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
- Nogs must be in place at a maximum of 800mm centres.
- Maximum stud spacing's are 600mm centres.
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further instructions.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Cavity battens as per cladding manufacturer's technical specification.

**Weathertight Cladding**

The Exterior wall must be clad with a suitable weathertight material. Cladding fixed as per manufacturer's technical specification.

**N.B:** It is important to consider the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

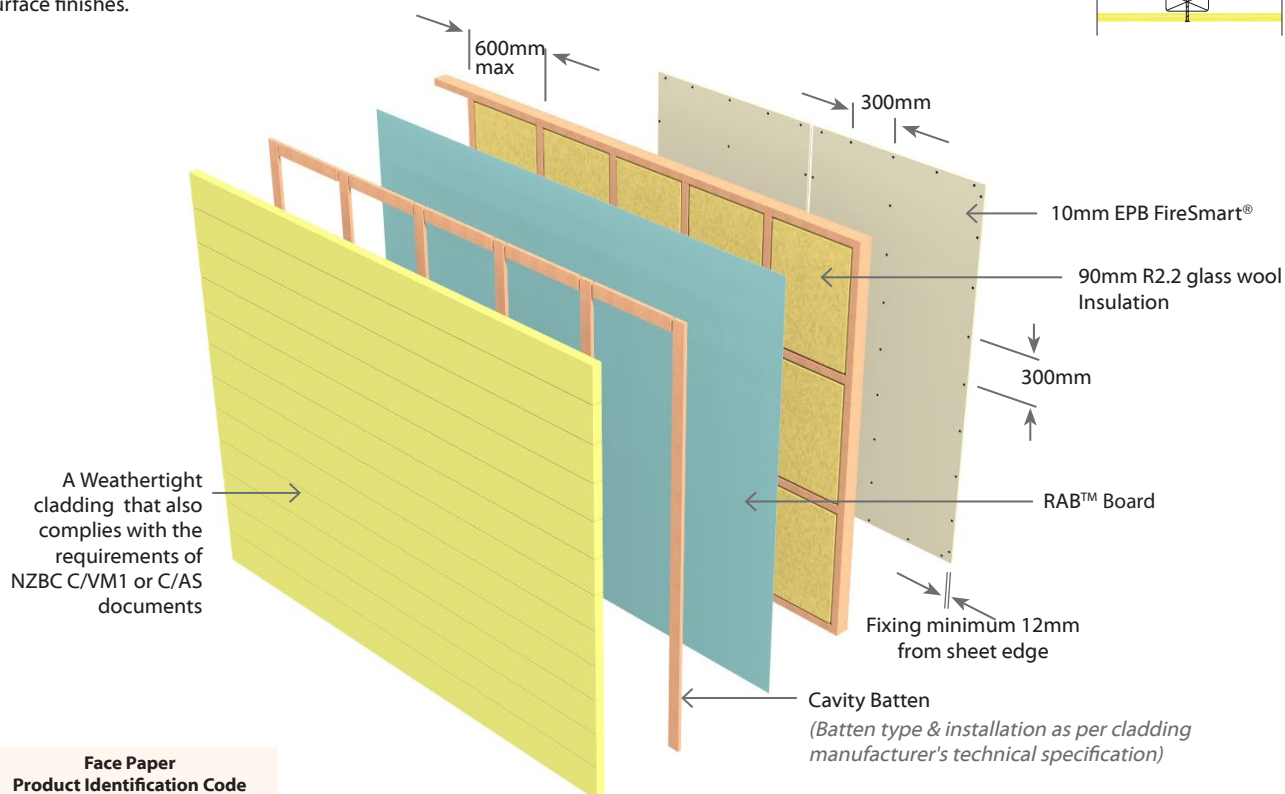
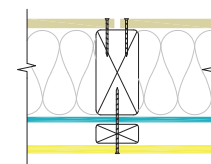
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

**Face Paper****Product Identification Code**

10mm EPB FireSmart® | **F10**

*N.B. The above drawings are for illustrative purposes only.*



**EJRN1TL60****EPB & James Hardie RAB™ Board & a Weathertight Cladding****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                |
|------------------|---------------|----------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>EJRN1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 42                | 1 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
- Nogs must be in place at a maximum of 800mm centres.
- Maximum stud spacing's are 600mm centres.
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further instructions.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Cavity battens as per cladding manufacturer's technical specification.

**Weathertight Cladding**

The Exterior wall must be clad with a suitable weathertight material. Cladding fixed as per manufacturer's technical specification.

**N.B:** It is important to consider the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to internal side of framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall Screws

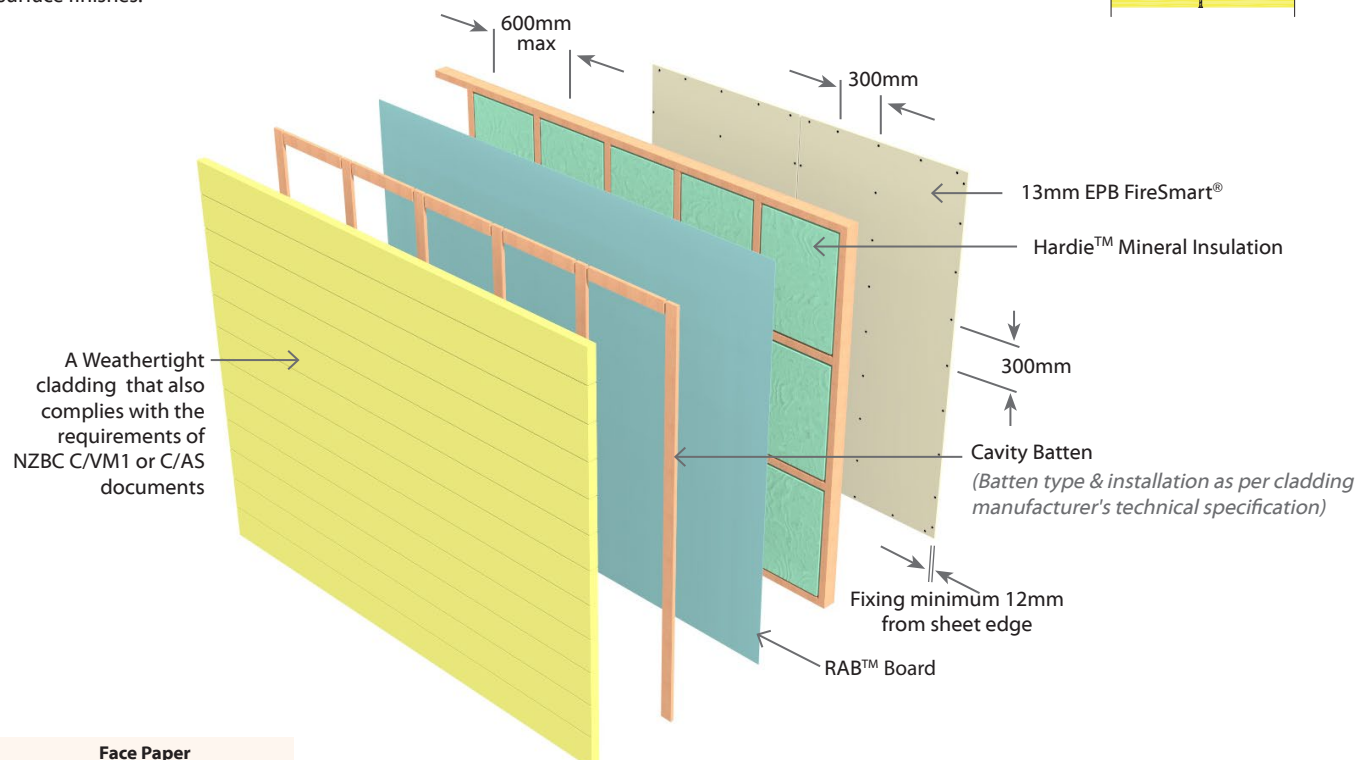
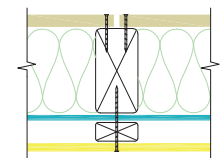
**Fastener Centres**

Fix at 300mm centres around sheet perimeter and up all intermediate studs. Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.


**Face Paper  
Product Identification Code**

13mm EPB FireSmart® | **F13**

*N.B. The above drawings are for illustrative purposes only.*



**EJRN2TL60****EPB & James Hardie RAB™ Board & a Weathertight Cladding****Two Way FRR****External Wall - Timber Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                             |
|------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>EJRN2TL60</b> | <b>-F20</b>   | 60/60/60 | Hardie™ Mineral | 46                | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side              |
|                  | <b>-S26</b>   | 60/60/60 | Hardie™ Mineral | 47                | 2 x 13mm EPB® Standard on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side               |
|                  | <b>-M20</b>   | 60/60/60 | Hardie™ Mineral | 47                | 2 x 10mm EPB BraceSmart®/NoiseSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
- Nogs must be in place at a maximum of 800mm centres.
- Maximum stud spacing's are 600mm centres.
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further instructions.

**Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Cavity battens as per cladding manufacturer's technical specification.

**Weathertight Cladding**

The Exterior wall must be clad with a suitable weathertight material. Cladding fixed as per manufacturer's technical specification.

**N.B:** It is important to consider the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

Two layers of EPB® Plasterboard lining to internal side of framing as per specified system above. First layer or inner layer to be fixed vertically. Vertical or Horizontal fixing permitted on outer layer only. Use full height or full length sheets where possible. All sheet joints must be fixed over solid timber framing. Vertical joints of the outer layer should be offset 600mm from those of the inner layer. Sheet end butt joints must be formed over nogs. Offset the outer layer joints from the inner layer. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

Inner layer: 41mm x 6g High Thread Drywall Screws

Outerlayer: 51mm x 7g High Thread Drywall Screws

**Fastener Centres**

Inner Layer: Fix at 600mm centres at sheet perimeter and all studs.

Outer Layer: Fix at 300mm centres at sheet perimeter and all studs.

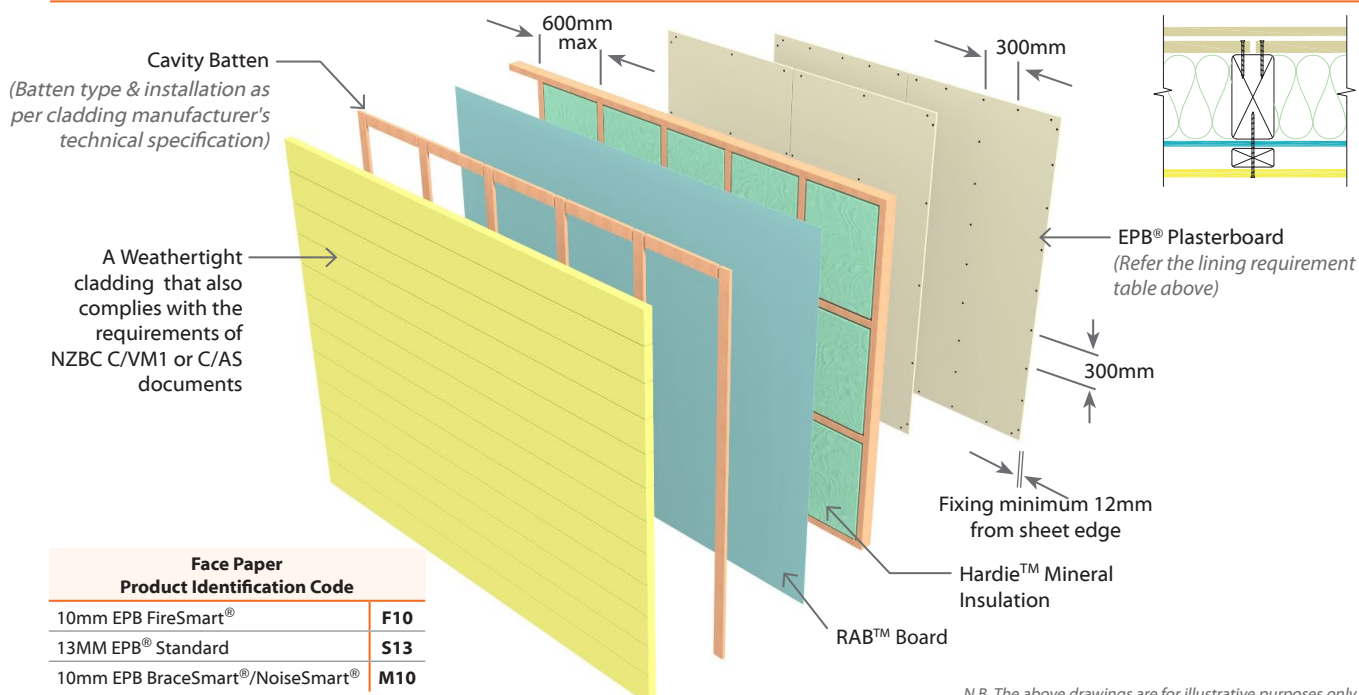
Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Avoid outer layer screws from hitting inner layer screws.

**Jointing and Finishing of EPB® Plasterboard**

Inner Layer: Unstopped.

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



*N.B. The above drawings are for illustrative purposes only.*



A solid orange vertical line is positioned to the left of the text, extending from the top of the 'External' line down to the bottom of the 'Steel Frame Walls' line.

# External Steel Frame Walls

**EJRH1SL30**

EPB &amp; RAB™ Board with selected James Hardie Fibre Cement Cladding

Two Way FRR

## External Wall - Steel Frame

## Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                                         |
|------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EJRH1SL30</b> | <b>-F16</b>   | 30/30/30 | Hardie™ Mineral | 42 - 47           | 1 x 16mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with selected James Hardie Fibre Cement cladding with to External side |

**Framing, Wall Height, Load and Framing Dimension**

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. The framing shall also meet the following;

- Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum
- The minimum size for steel stud framing to be used in external walls shall be minimum 89mm deep x 36mm wide
- Maximum stud spacing 400mm c/c
- Maximum nogs / dwangs spacing 800mm c/c
- Steel frame must comply with the durability requirements of NZBC
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction as per SED in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

**Thermal Fire Batten**

Fire battens are used on all FRR steel stud systems and must be used between James Hardie Cladding and steel framing face.

Refer to section 4.6 of James Hardie Fire & Acoustic Design Manual for installation detail.

**Pre-Cladding / Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

RAB™ Board must be used to achieve fire ratings

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Refer to the table below for the type of cavity batten required for the selected James Hardie system.

| James Hardie Cladding System       | Cavity Batten type                    |
|------------------------------------|---------------------------------------|
| <b>ExoTec™</b>                     | Top Hat System                        |
| <b>Stria™</b> (Horizontally fixed) | Hardie™ CLD™ Structural Cavity Batten |
| <b>Axon™</b>                       |                                       |

**Hardie™ CLD™ Structural Cavity Batten:**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten.

Hardie™ CLD™ Structural Cavity battens to be installed according to the selected type of James Hardie cladding and as per the relevant technical specification, refer page 27 of this manual.

**ExoTec™ Top Hat System:**

For ExoTec™ Top hat system installation instructions, refer to ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification

**James Hardie Fibre Cement Cladding**

One layer of selected James Hardie Fibre Cement cladding to one side of the framing. See list below for allowable James Hardie claddings.

| Selected Cladding System           |
|------------------------------------|
| <b>ExoTec™</b>                     |
| <b>Stria™</b> (Horizontally fixed) |
| <b>Axon™</b>                       |

Refer to page 27 of this manual for the above mentioned James Hardie cladding's relevant technical literature.

Also refer to James Hardie Fire & Acoustic Design Manual.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 16mm EPB FireSmart® Plasterboard lining to internal side of the steel framing. Vertical fixing only permitted. Use full height sheets where possible. All sheet joints must be fixed over steel framing. Where sheet end butt joints are unavoidable, they must be formed over nogs. The layer is fixed hard to the floor. Sheet shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

| System Number        | Single Layer                |
|----------------------|-----------------------------|
|                      | Self-Tapping Drywall Screws |
| <b>EJRH1SL30-F16</b> | 16mm<br>32 x 6g             |

**Fastener Centres**

Fix at 300mm centres up each stud with no fixing to top and bottom channel sections.

Place fasteners no closer than 12mm from the sheet edge and 50mm from sheet ends.

Place fasteners at 200mm centres where sheet end butt joints occur.

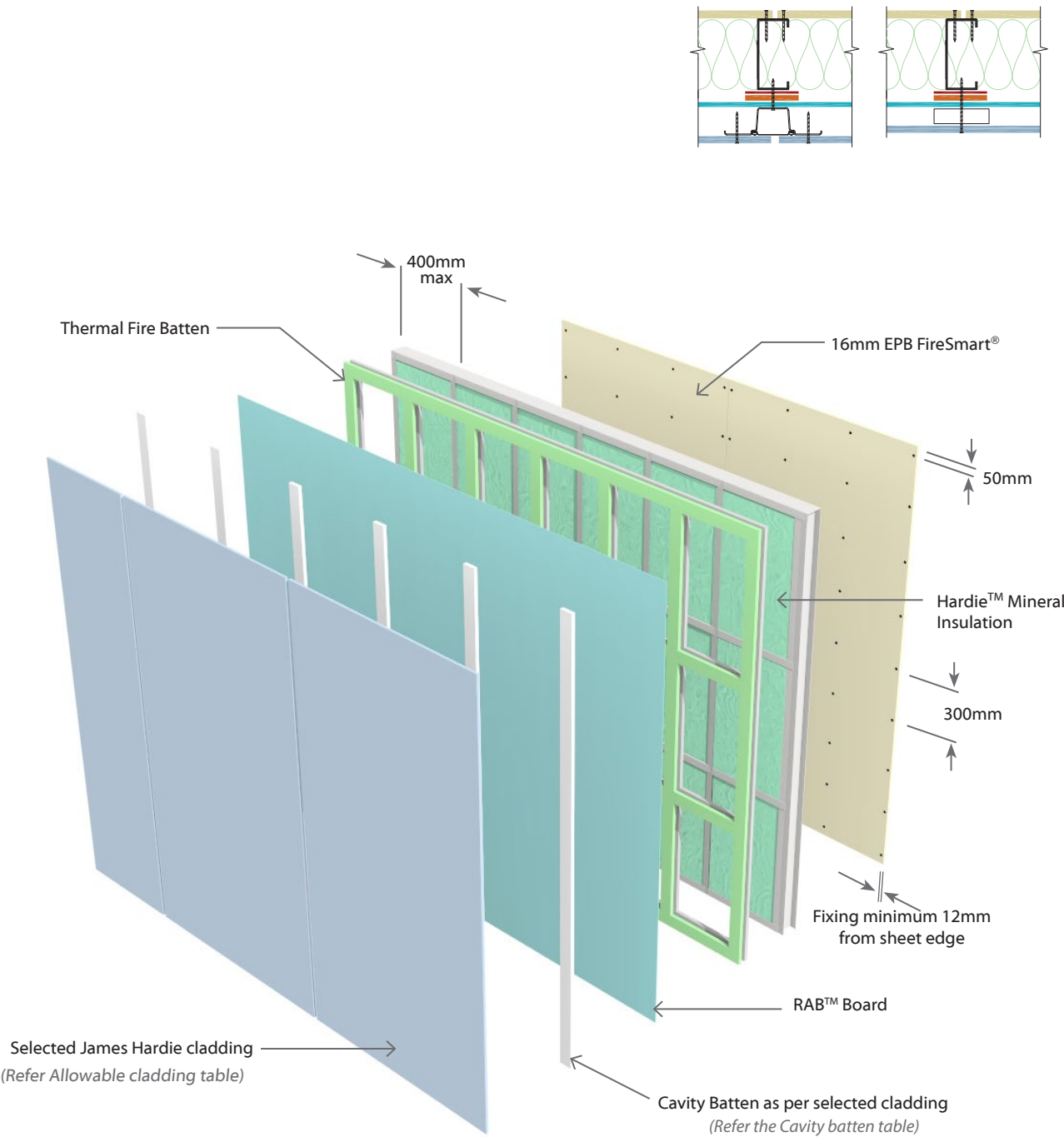
**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.





| EJRH1SL30                   |               | EPB & RAB™ Board with selected James Hardie Fibre Cement Cladding |                 |                   |                                                                                                                                            | Two Way FRR |
|-----------------------------|---------------|-------------------------------------------------------------------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| External Wall - Steel Frame |               |                                                                   |                 |                   | Load Bearing                                                                                                                               |             |
| System Number               | Lining Suffix | FRR                                                               | Insulation      | Noise Control STC | Lining Requirement                                                                                                                         |             |
| EJRH1SL30                   | -F16          | 30/30/30                                                          | Hardie™ Mineral | 42 - 47           | 1 x 16mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with selected James Hardie Fibre Cement cladding with to External side |             |



Face Paper

Product Identification Code

16mm EPB FireSmart® | F16

N.B. The above drawings are for illustrative purposes only.

**EJRH2SL30**

EPB &amp; RAB™ Board with selected James Hardie Fibre Cement Cladding

Two Way FRR

External Wall - Steel Frame

Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                       |
|------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>EJRH2SL30</b> | <b>-F20</b>   | 30/30/30 | Hardie™ Mineral | 47 - 53           | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with selected James Hardie cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. The framing shall also meet the following;

- Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum
- The minimum size for steel stud framing to be used in external walls shall be minimum 89mm deep x 36mm wide
- Maximum stud spacing 400mm c/c
- Maximum nogs / dwangs spacing 800mm c/c
- Steel frame must comply with the durability requirements of NZBC
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction as per SED in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

**Thermal Fire Batten**

Fire battens are used on all FRR steel stud systems and must be used between James Hardie Cladding and steel framing face.

Refer to section 4.6 of James Hardie Fire & Acoustic Design Manual for installation detail.

**Pre-Cladding / Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

RAB™ Board must be used to achieve fire ratings

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Refer to the table below for the type of cavity batten required for the selected James Hardie system.

| James Hardie Cladding System       | Cavity Batten type                    |
|------------------------------------|---------------------------------------|
| <b>ExoTec™</b>                     | Top Hat System                        |
| <b>Stria™</b> (Horizontally fixed) | Hardie™ CLD™ Structural Cavity Batten |
| <b>Axon™</b>                       |                                       |

**Hardie™ CLD™ Structural Cavity Batten:**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten.

Hardie™ CLD™ Structural Cavity battens to be installed according to the selected type of James Hardie cladding and as per the relevant technical specification, refer page 27 of this manual.

**ExoTec™ Top Hat System:**

For ExoTec™ Top hat system installation instructions, refer to ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification

**James Hardie Fibre Cement Cladding**

One layer of selected James Hardie Fibre Cement cladding to one side of the framing. See list below for allowable James Hardie cladding.

| Selected Cladding Type             |
|------------------------------------|
| <b>ExoTec™</b>                     |
| <b>Stria™</b> (Horizontally fixed) |
| <b>Axon™</b>                       |

Refer to page 27 of this manual for the above mentioned James Hardie cladding's relevant technical literature.

Also refer to James Hardie Fire & Acoustic Design Manual.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

Two layers of 10mm EPB FireSmart® lining to internal side of the steel framing.

Vertical fixing only permitted. Use full height sheets where possible. All vertical sheet joints must be fixed over framing. Vertical joints of the outer layer should be offset to those of the inner layer. Where sheet end butt joints are unavoidable, the inner layer joints must be formed over nogs. Stagger the outer layer butt joints from the inner layer by minimum 100mm. The layers are fixed hard to the floor. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

| System Number        | 1 <sup>st</sup> Layer       | 2 <sup>nd</sup> Layer |
|----------------------|-----------------------------|-----------------------|
|                      | Self-Tapping Drywall Screws |                       |
| <b>EJRH2SL30-F20</b> | 10mm                        | 10mm                  |
|                      | 25 x 6g                     | 32 x 6g               |

**Fastener Centres**

Inner Layer: Fix at 600mm centres up each stud with no fixing to top and bottom track sections.

Outer Layer: Fix at 300mm centres up each stud with no fixing to top and bottom track sections.

Place fasteners no closer than 12mm to the sheet edge and 50mm from sheet ends.

Place fasteners at 200mm centres where sheet end butt joints occur.

Avoid outer layer screws from hitting inner layer screws.

**Jointing and Finishing of EPB® Plasterboard**

Inner Layer: Unstopped

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

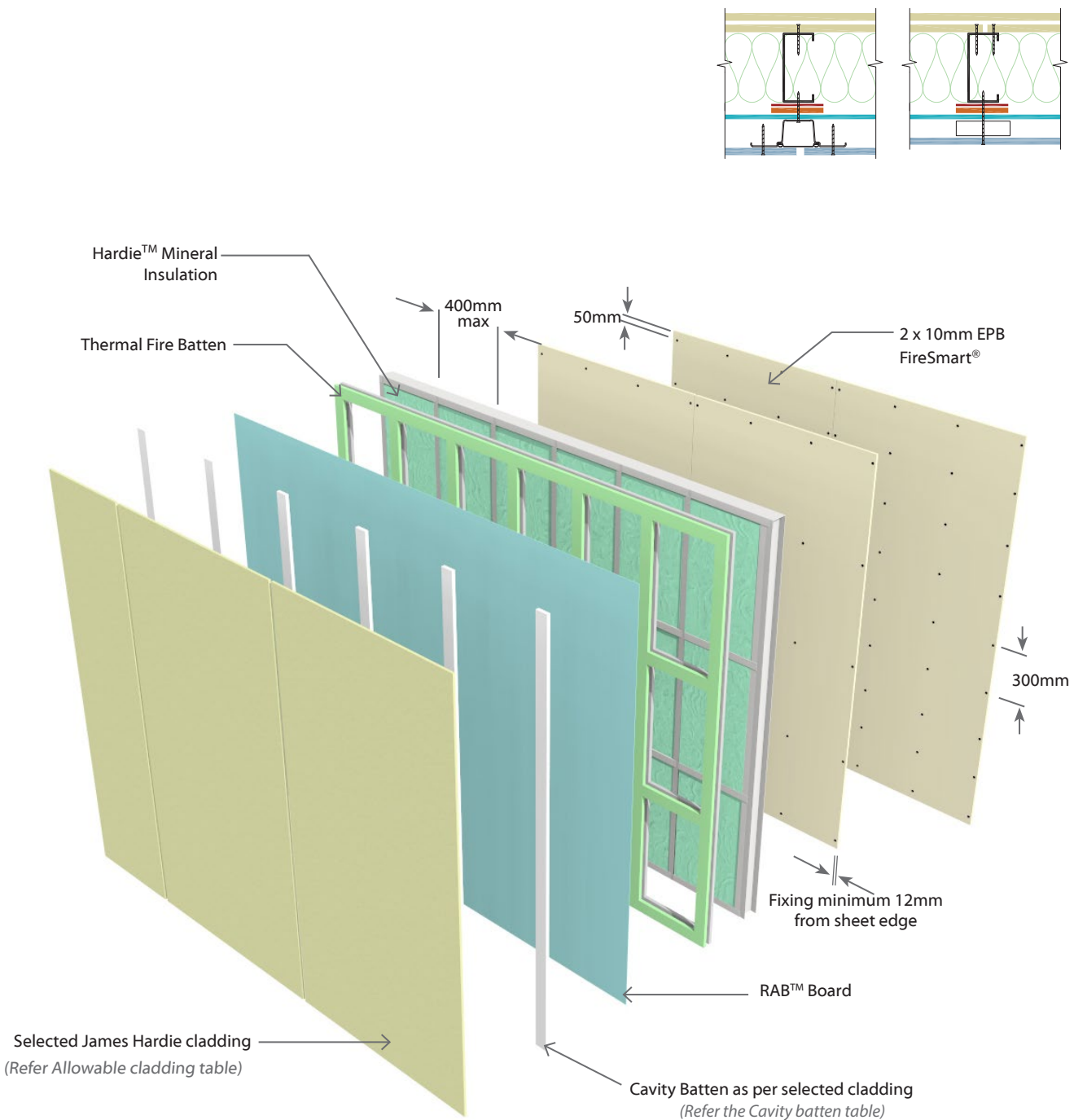


EJRH2SL30

EPB & RAB™ Board with selected James Hardie Fibre Cement Cladding

Two Way FRR

| External Wall - Steel Frame |               |          |                 |                   | Load Bearing                                                                                                             |
|-----------------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------|
| System Number               | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                       |
| EJRH2SL30                   | -F20          | 30/30/30 | Hardie™ Mineral | 47 - 53           | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with selected James Hardie cladding to External side |



N.B. The above drawings are for illustrative purposes only.

**EJRH2SL60**

EPB &amp; RAB™ Board with selected James Hardie Fibre Cement Cladding

Two Way FRR

External Wall - Steel Frame

Load Bearing

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                       |
|------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>EJRH2SL60</b> | <b>-F26</b>   | 60/60/60 | Hardie™ Mineral | 51- 54            | 2 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with selected James Hardie cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. The framing shall also meet the following;

- Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum
- The minimum size for steel stud framing to be used in external walls shall be minimum 89mm deep x 36mm wide
- Maximum stud spacing 400mm c/c
- Maximum nogs / dwangs spacing 800mm c/c
- Steel frame must comply with the durability requirements of NZBC
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction as per SED in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

**Thermal Fire Batten**

Fire battens are used on all FRR steel stud systems and must be used between James Hardie Cladding and steel framing face.

Refer to section 4.6 of James Hardie Fire & Acoustic Design Manual for installation detail.

**Pre-Cladding / Underlay****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

RAB™ Board must be used to achieve fire ratings

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Refer to the table below for the type of cavity batten required for the selected James Hardie system.

| James Hardie Cladding System       | Cavity Batten type                    |
|------------------------------------|---------------------------------------|
| <b>ExoTec™</b>                     | Top Hat System                        |
| <b>Stria™</b> (Horizontally fixed) | Hardie™ CLD™ Structural Cavity Batten |
| <b>Axon™</b>                       |                                       |

**Hardie™ CLD™ Structural Cavity Batten:**

Use 70 x 19mm Hardie™ CLD™ Structural Cavity Batten.

Hardie™ CLD™ Structural Cavity battens to be installed according to the selected type of James Hardie cladding and as per the relevant technical specification, refer page 27 of this manual.

**ExoTec™ Top Hat System:**

For ExoTec™ Top hat system installation instructions, refer to ExoTec™ Facade Panel Top Hat Rainscreen Technical Specification

**James Hardie Fibre Cement Cladding**

One layer of selected James Hardie Fibre Cement cladding to one side of the framing. See list below for allowable James Hardie claddings.

| Selected Cladding Type             |
|------------------------------------|
| <b>ExoTec™</b>                     |
| <b>Stria™</b> (Horizontally fixed) |
| <b>Axon™</b>                       |

Refer to page 27 of this manual for the above mentioned James Hardie cladding's relevant technical literature.

Also refer to James Hardie Fire & Acoustic Design Manual.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

Two layers of 13mm EPB MultiSmart® lining to internal side of the steel framing.

Vertical fixing only permitted. Use full height sheets where possible. All vertical sheet joints must be fixed over framing. Vertical joints of the outer layer should be offset to those of the inner layer. Where sheet end butt joints are unavoidable, the inner layer joints must be formed over nogs. Stagger the outer layer butt joints from the inner layer by minimum 100mm. The layers are fixed hard to the floor. Sheet shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

| System Number        | 1 <sup>st</sup> Layer       | 2 <sup>nd</sup> Layer |
|----------------------|-----------------------------|-----------------------|
|                      | Self-Tapping Drywall Screws |                       |
| <b>EJRH2SL60-F26</b> | 13mm                        | 13mm                  |
|                      | 25 x 6g                     | 41 x 6g               |

**Fastener Centres**

Inner Layer: Fix at 600mm centres up each stud with no fixing to top and bottom track sections.

Outer Layer: Fix at 300mm centres up each stud with no fixing to top and bottom track sections.

Place fasteners no closer than 12mm to the sheet edge and 50mm from sheet ends.

Place fasteners at 200mm centres where sheet end butt joints occur.

Avoid outer layer screws from hitting inner layer screws.

**Jointing and Finishing of EPB® Plasterboard**

Inner Layer: Unstopped

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

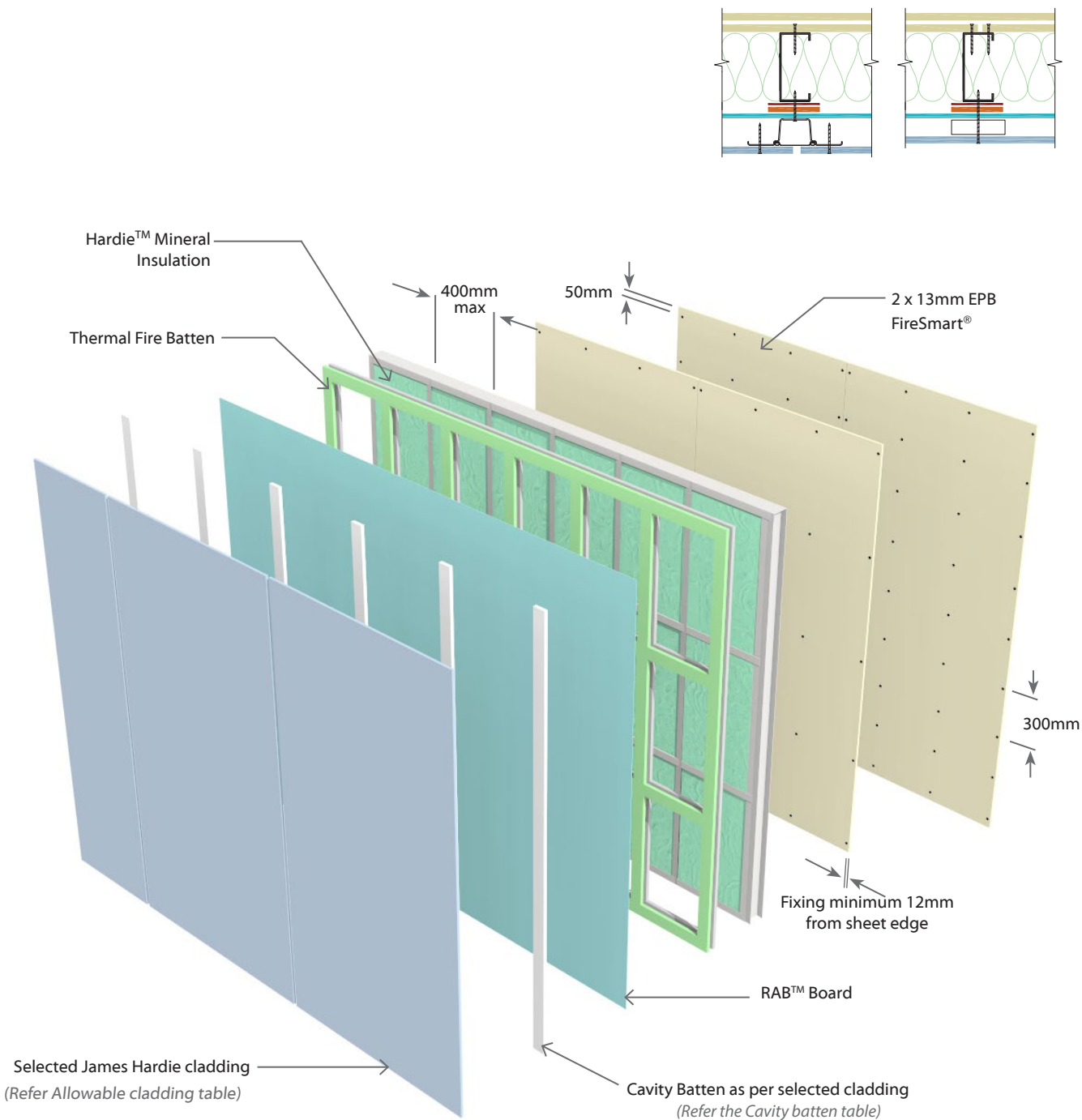


EJRH2SL60

EPB & RAB™ Board with selected James Hardie Fibre Cement Cladding

Two Way FRR

| External Wall - Steel Frame |               |          |                 |                   | Load Bearing                                                                                                             |
|-----------------------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------------------------------------------------|
| System Number               | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                       |
| EJRH2SL60                   | -F26          | 60/60/60 | Hardie™ Mineral | 51- 54            | 2 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with selected James Hardie cladding to External side |



Face Paper

Product Identification Code

13mm EPB FireSmart®

F13

N.B. The above drawings are for illustrative purposes only.



**EJRN1SL30****EPB & James Hardie RAB™ Board & a Weathertight Cladding****Two Way FRR****External Wall - Steel Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                |
|------------------|---------------|----------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>EJRN1SL30</b> | <b>-F16</b>   | 30/30/30 | Hardie™ Mineral | 43                | 1 x 16mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. The framing shall also meet the following;

- Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum
- The minimum size for steel stud framing to be used in external walls shall be minimum 89mm deep x 36mm wide
- Maximum stud spacing 400mm centres
- Maximum nogs / dwangs spacing 800mm centres
- Steel frame must comply with the durability requirements of NZBC
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction as per SED in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

**Thermal Fire Batten**

Fire battens are used on all FRR steel stud systems and must be used between James Hardie Cladding and steel framing face.

Refer to section 4.6 of James Hardie Fire & Acoustic Design Manual for installation detail.

**Pre-Cladding****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Cavity battens to be installed according to the selected type of Cladding and its manufacturer's relevant technical specification.

**Weathertight Cladding**

The Exterior wall must be clad with a suitable weathertight material. Cladding fixed as per manufacturer's technical specification.

**N.B:** It is important to consider the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 16mm EPB FireSmart lining to internal side of the steel framing. Vertical fixing only permitted. Use full height sheets where possible. All sheet joints must be fixed over steel framing. Where sheet end butt joints are unavoidable, they must be formed over nogs. The layer is fixed hard to the floor. Sheet shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

| System Number        | Single Layer                |
|----------------------|-----------------------------|
|                      | Self-Tapping Drywall Screws |
| <b>EJRN1SL30-F16</b> | 16mm                        |
|                      | 32 x 6g                     |

**Fastener Centres**

Fix at 300mm centres up each stud with no fixing to top and bottom channel sections.

Place fasteners no closer than 12mm from the sheet edge and 50mm from sheet ends.

Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.

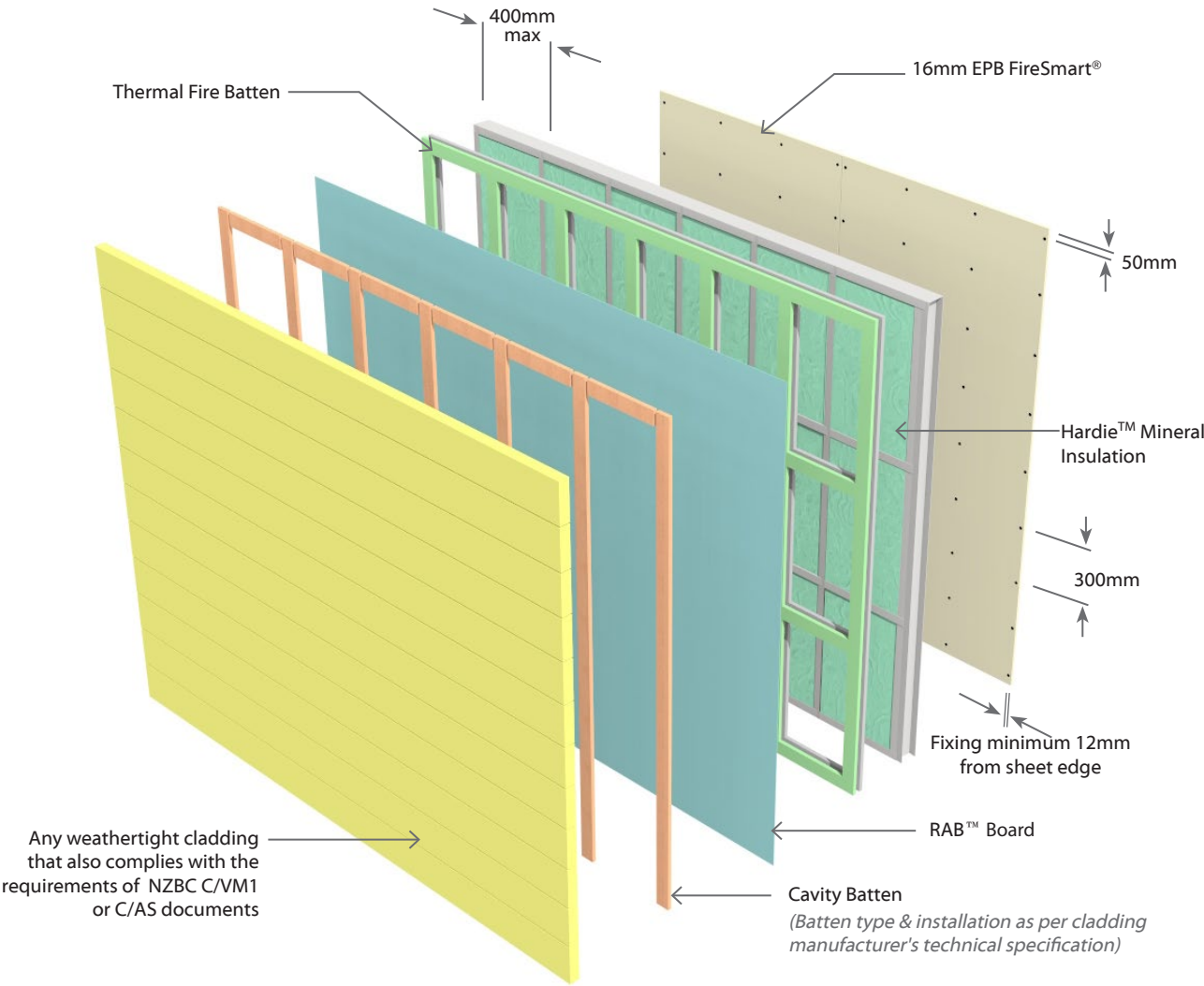
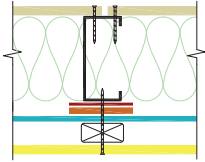


EJRN1SL30

EPB & James Hardie RAB™ Board & a Weathertight Cladding

Two Way FRR

| External Wall - Steel Frame |               |          |                 |                   | Load Bearing                                                                                                      |
|-----------------------------|---------------|----------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|
| System Number               | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                |
| EJRN1SL30                   | -F16          | 30/30/30 | Hardie™ Mineral | 43                | 1 x 16mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |



| Face Paper<br>Product Identification Code |     |
|-------------------------------------------|-----|
| 16mm EPB FireSmart®                       | F16 |

N.B. The above drawings are for illustrative purposes only.

**EJRN2SL30****EPB & James Hardie RAB™ Board & a Weathertight Cladding****Two Way FRR****External Wall - Steel Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                |
|------------------|---------------|----------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>EJRN2SL30</b> | <b>-F20</b>   | 30/30/30 | Hardie™ Mineral | 47                | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. The framing shall also meet the following;

- Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum
- The minimum size for steel stud framing to be used in external walls shall be minimum 89mm deep x 36mm wide
- Maximum stud spacing 400mm centres
- Maximum nogs / dwangs spacing 800mm centres
- Steel frame must comply with the durability requirements of NZBC
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction as per SED in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

**Thermal Fire Batten**

Fire battens are used on all FRR steel stud systems and must be used between James Hardie Cladding and steel framing face.

Refer to section 4.6 of James Hardie Fire & Acoustic Design Manual for installation detail.

**Pre-Cladding****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres  
Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Cavity battens to be installed according to the selected type of Cladding and its manufacturer's relevant technical specification.

**Weathertight Cladding**

The Exterior wall must be clad with a suitable weathertight material. Cladding fixed as per manufacturer's technical specification.

**N.B:** It is important to consider the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

Two layers of 10mm EPB FireSmart® lining as per specified system above to internal side of the steel framing.

Vertical fixing only permitted. Use full height sheets where possible. All vertical sheet joints must be fixed over framing. Vertical joints of the outer layer should be offset to those of the inner layer. Where sheet end butt joints are unavoidable, the inner layer joints must be formed over nogs. Stagger the outer layer butt joints from the inner layer by minimum 100mm. The layers are fixed hard to the floor. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

| System Number        | 1 <sup>st</sup> Layer       | 2 <sup>nd</sup> Layer |
|----------------------|-----------------------------|-----------------------|
|                      | Self-Tapping Drywall Screws |                       |
| <b>EJRN2SL30-F20</b> | 10mm                        | 10mm                  |
|                      | 25 x 6g                     | 32 x 6g               |

**Fastener Centres**

Inner Layer: Fix at 600mm centres up each stud with no fixing to top and bottom track sections.

Outer Layer: Fix at 300mm centres up each stud with no fixing to top and bottom track sections.

Place fasteners no closer than 12mm to the sheet edge and 50mm from sheet ends.

Place fasteners at 200mm centres where sheet end butt joints occur.

Avoid outer layer screws from hitting inner layer screws.

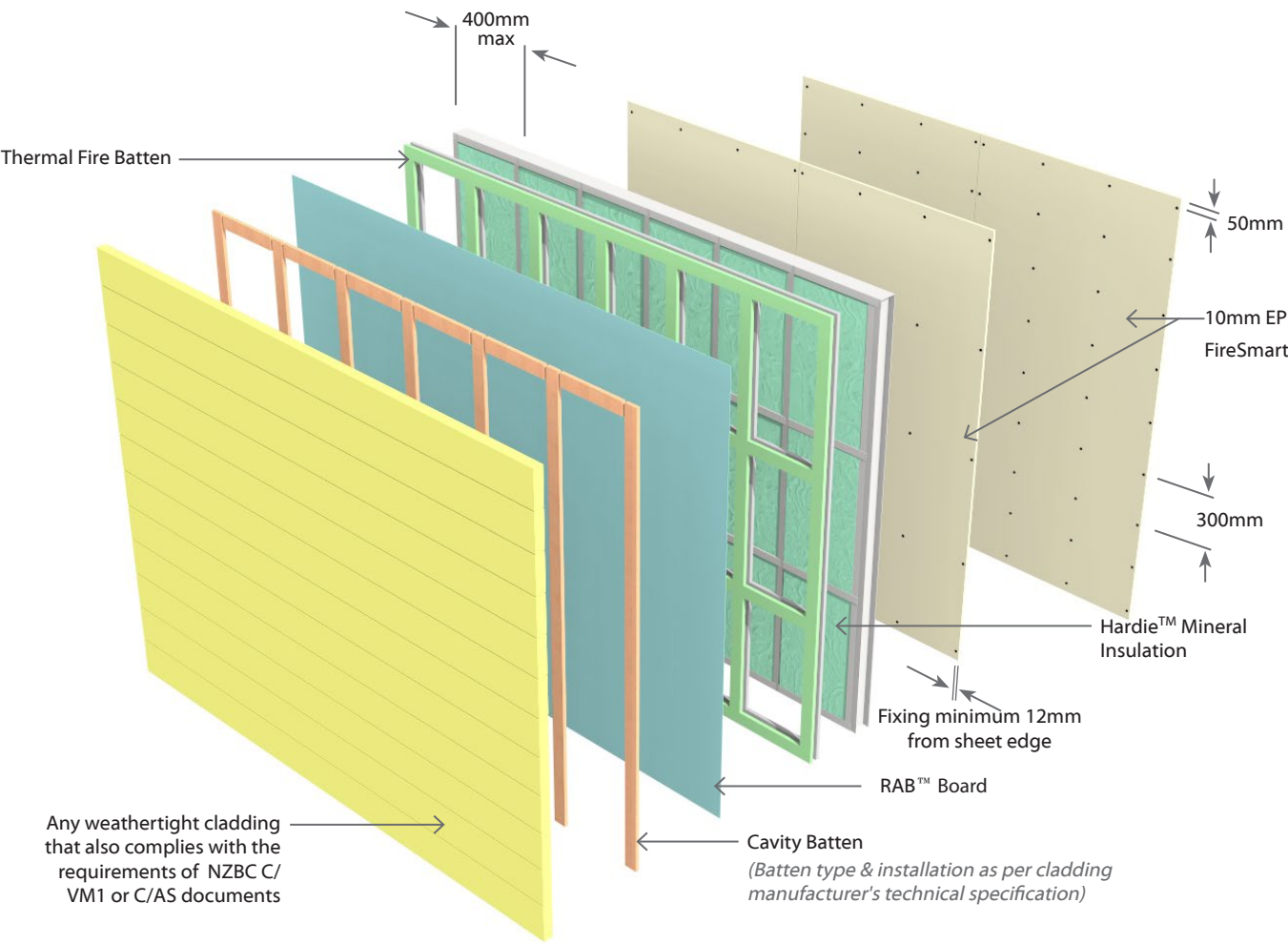
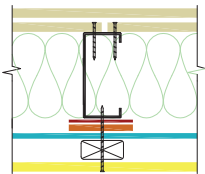
**Jointing and Finishing of EPB® Plasterboard**

Inner Layer: Unstopped

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| EJRN2SL30                   |               | EPB & James Hardie RAB™ Board & a Weathertight Cladding |                 |                   |                                                                                                                   | Two Way FRR  |
|-----------------------------|---------------|---------------------------------------------------------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|--------------|
| External Wall - Steel Frame |               |                                                         |                 |                   |                                                                                                                   | Load Bearing |
| System Number               | Lining Suffix | FRR                                                     | Insulation      | Noise Control STC | Lining Requirement                                                                                                |              |
| EJRN2SL30                   | -F20          | 30/30/30                                                | Hardie™ Mineral | 47                | 2 x 10mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |              |



| Face Paper Product Identification Code |     |
|----------------------------------------|-----|
| 10mm EPB FireSmart®                    | F10 |

N.B. The above drawings are for illustrative purposes only.

**EJRN2SL60****EPB & James Hardie RAB™ Board & a Weathertight Cladding****Two Way FRR****External Wall - Steel Frame****Load Bearing**

| System Number    | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                                                                |
|------------------|---------------|----------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>EJRN2SL60</b> | <b>-F26</b>   | 60/60/60 | Hardie™ Mineral | 49                | 2 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |

**Framing, Wall Height, Load and Framing Dimension**

Steel framing for fire rated walls must be in accordance with NASH standard for residential and low rise buildings and AS/NZ 1170 standards. The framing shall also meet the following;

- Steel sections shall be galvanized/zinc coated and have a base metal thickness (BMT) 0.55mm minimum for non-load bearing walls and 0.75mm minimum for load bearing walls and 1.6mm maximum
- The minimum size for steel stud framing to be used in external walls shall be minimum 89mm deep x 36mm wide
- Maximum stud spacing 400mm centres
- Maximum nogs / dwangs spacing 800mm centres
- Steel frame must comply with the durability requirements of NZBC
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction as per SED in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

**Thermal Fire Batten**

Fire battens are used on all FRR steel stud systems and must be used between James Hardie Cladding and steel framing face.

Refer to section 4.6 of James Hardie Fire & Acoustic Design Manual for installation detail.

**Pre-Cladding****RAB™ Board**

One layer of James Hardie RAB™ Board fixed to entire framing.

6mm RAB™ Board : Use 40 x 2.8mm fibre cement nail at 150mm centres

9mm RAB™ Board : Use 50 x 2.8mm fibre cement nail at 150mm centres

Fixing to be 12mm from sheet edges

Reference to be made to the James Hardie HomeRAB™ Pre-Cladding & RAB™ Board Installation Manual.

**Cavity Batten**

Cavity battens to be installed according to the selected type of Cladding and its manufacturer's relevant technical specification.

**Weathertight Cladding**

The Exterior wall must be clad with a suitable weathertight material. Cladding fixed as per manufacturer's technical specification.

**N.B:** It is important to consider the fire properties of the external cladding is in accordance with NZBC C/VM1 or C/AS documents.

Refer to Table 5.1 of Section 5.4 of C/AS1 and Table 5.5 of Section 5.8.1 of C/AS2 for the information about various risk groups to identify the external fire spread safety requirement applicable to the exterior surface finishes.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use Hardie™ Mineral insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

Two layers of 13mm EPB FireSmart® lining to internal side of the steel framing. Vertical fixing only permitted. Use full height sheets where possible. All vertical sheet joints must be fixed over framing. Vertical joints of the outer layer should be offset to those of the inner layer. Where sheet end butt joints are unavoidable, the inner layer joints must be formed over nogs. Stagger the outer layer butt joints from the inner layer by minimum 100mm. The layers are fixed hard to the floor. Sheet shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

| System Number        | 1 <sup>st</sup> Layer       | 2 <sup>nd</sup> Layer |
|----------------------|-----------------------------|-----------------------|
|                      | Self-Tapping Drywall Screws |                       |
| <b>EJRN2SL60-F26</b> | 13mm                        | 13mm                  |
|                      | 25 x 6g                     | 41 x 6g               |

**Fastener Centres**

Inner Layer: Fix at 600mm centres up each stud with no fixing to top and bottom track sections.

Outer Layer: Fix at 300mm centres up each stud with no fixing to top and bottom track sections.

Place fasteners no closer than 12mm to the sheet edge and 50mm from sheet ends.

Place fasteners at 200mm centres where sheet end butt joints occur.

Avoid outer layer screws from hitting inner layer screws.

**Jointing and Finishing of EPB® Plasterboard**

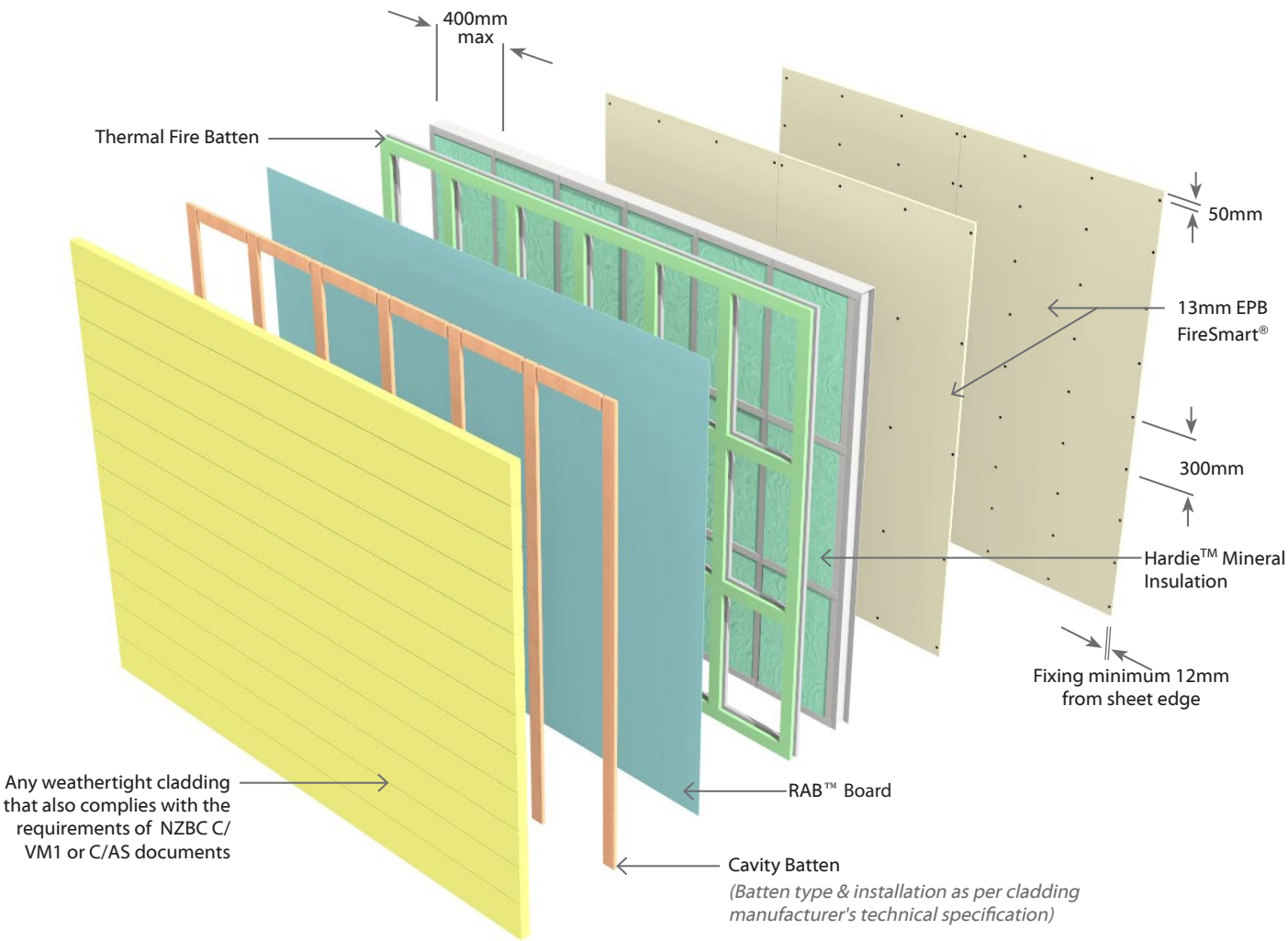
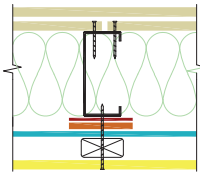
Inner Layer: Unstopped

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.





| EJRN2SL60                   |               | EPB & James Hardie RAB™ Board & a Weathertight Cladding |                 |                   |                                                                                                                   | Two Way FRR |
|-----------------------------|---------------|---------------------------------------------------------|-----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|-------------|
| External Wall - Steel Frame |               |                                                         |                 |                   | Load Bearing                                                                                                      |             |
| System Number               | Lining Suffix | FRR                                                     | Insulation      | Noise Control STC | Lining Requirement                                                                                                |             |
| EJRN2SL60                   | -F26          | 60/60/60                                                | Hardie™ Mineral | 49                | 2 x 13mm EPB FireSmart® on Internal side<br>James Hardie RAB™ Board with a Weathertight Cladding to External side |             |



| Face Paper<br>Product Identification Code |     |
|-------------------------------------------|-----|
| 13mm EPB FireSmart®                       | F13 |

N.B. The above drawings are for illustrative purposes only.

A solid orange vertical line is positioned to the left of the text, extending from the top of the word 'Internal' down to the bottom of the word 'Walls'.

# Internal Timber Frame Walls

**EJV1TL30****EPB Plasterboard & James Hardie Villaboard™ Lining****Two Way FRR****Internal Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                             |
|-----------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------|
| <b>EJV1TL30</b> | <b>-F10</b>   | 30/30/30 | R2.2 glass wool | 42                | 1 x 10mm EPB FireSmart® one side<br>James Hardie Villaboard™ Lining other side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
- Nogs must be in place at a maximum of 800mm centres.
- Maximum stud spacing's are 600mm centres.
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**James Hardie Villaboard™ Lining**

Fix James Hardie Villaboard™ Lining to one side of framing. Refer to James Hardie Villaboard™ Lining Installation Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick R2.2 glass wool insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 10mm EPB FireSmart® lining to framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall screws

**Fastener Centres**

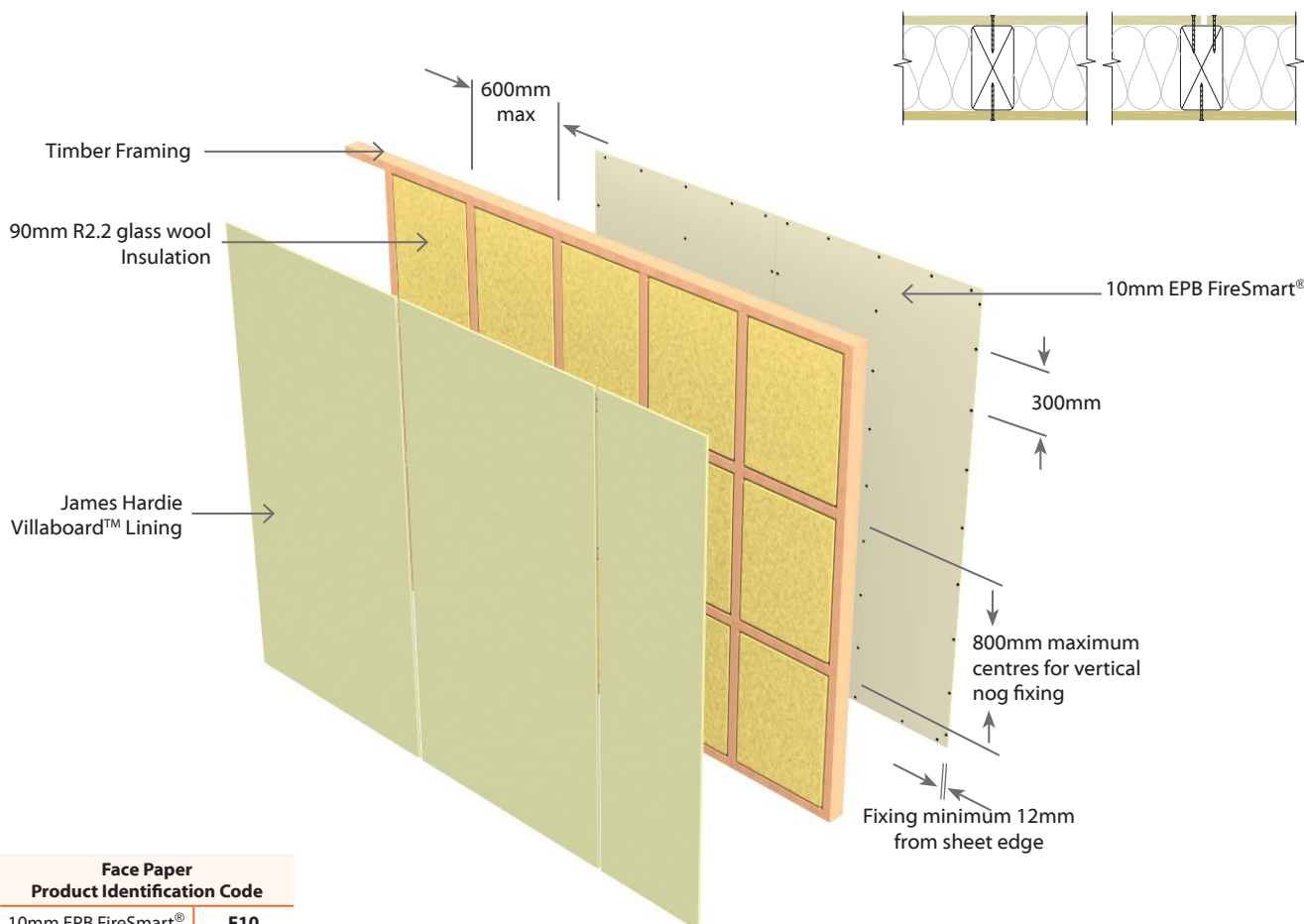
Fix at 300mm centres at sheet perimeter and up all other studs.

Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no closer than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.



**EJV1TL60****EPB Plasterboard & James Hardie Villaboard™ Lining****Two Way FRR****Internal Wall - Timber Frame****Load Bearing**

| System Number   | Lining Suffix | FRR      | Insulation      | Noise Control STC | Lining Requirement                                                             |
|-----------------|---------------|----------|-----------------|-------------------|--------------------------------------------------------------------------------|
| <b>EJV1TL60</b> | <b>-F13</b>   | 60/60/60 | Hardie™ Mineral | 43                | 1 x 13mm EPB FireSmart® one side<br>James Hardie Villaboard™ Lining other side |

**Framing, Wall Height, Load and Framing Dimension**

Timber framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability. Timber framing must be in accordance with NZS3604 stud tables for load bearing or non-load bearing partitions. Furthermore;

- Minimum framing dimension is 90 x 45mm.
- Nogs must be in place at a maximum of 800mm centres.
- Maximum stud spacing's are 600mm centres.
- The fire rated walls built close to boundary are also required to achieve post fire stability in either direction in accordance with the NZBC verification method B1/VM1, paragraph 2.2.4

Refer to latest James Hardie Fire & Acoustic Design Manual figures and tables for further detail.

**James Hardie Villaboard™ Lining**

Fix James Hardie Villaboard™ Lining to one side of framing.

Refer to James Hardie Villaboard™ Lining Installation Manual for information regarding fixing and finishing.

**Wall Insulation**

Insulation must be installed between studs and nogs. Use 90mm thick James Hardie Mineral Insulation.

**EPB® Plasterboard Lining**

**NB:** The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® lining to framing. Vertical fixing only permitted. Use full height sheets where possible when fixing vertical. All sheet joints must be fixed over solid timber framing. Sheets shall be touch fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall screws

**Fastener Centres**

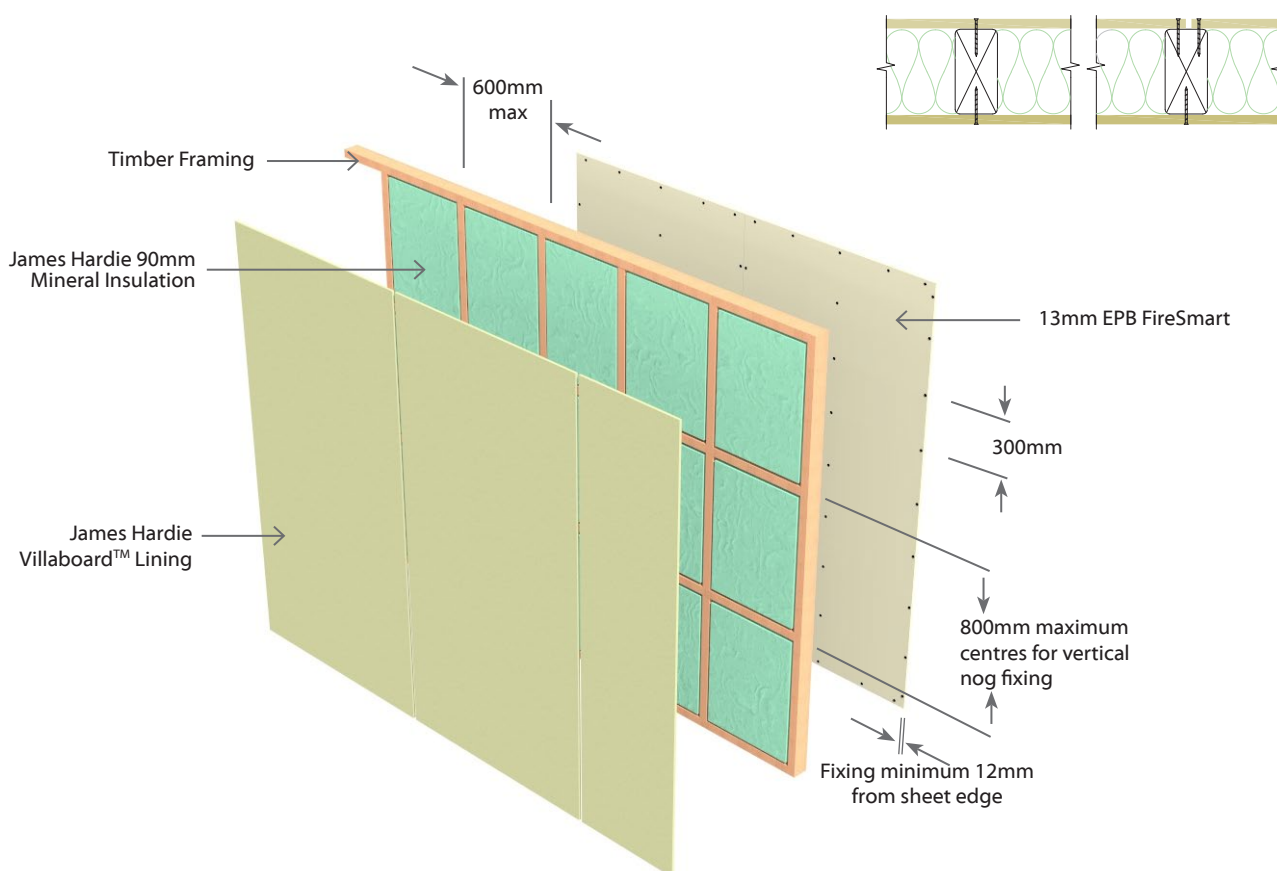
Fix at 300mm centres at sheet perimeter and up all other studs.

Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

Place fasteners no closer than 12mm from the sheet edges and 18mm from sheet ends. Place fasteners at 200mm centres where sheet end butt joints occur.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| Face Paper<br>Product Identification Code |
|-------------------------------------------|
| 13mm EPB FireSmart® F13                   |

N.B. The above drawings are for illustrative purposes only.





# Floor/Ceiling Systems



**EJS1FC30****EPB Plasterboard & James Hardie Secura™ Interior Flooring**

Floor/Ceiling - Timber Joist

Load Bearing

| System Number   | Lining Suffix | FRR      | Noise Control |     | Lining Requirement                                                                                     |
|-----------------|---------------|----------|---------------|-----|--------------------------------------------------------------------------------------------------------|
|                 |               |          | STC           | IIC |                                                                                                        |
| <b>EJS1FC30</b> | <b>-F13</b>   | 30/30/30 | 45            | 33  | 1 x 13mm EPB FireSmart® under the frame<br>19mm James Hardie Secura™ Interior Flooring above the frame |

**Floor Framing**

Timber floor joists shall comply with NZS3604 with a minimum depth of 190mm x 45mm and spaced at no more than 400mm centres.

Solid strutting at 1800mm maximum centres required.

Nogs fixed on the flat to receive the ends of flooring material shall be 100 x 50mm minimum.

Nogs fixed on the flat to receive the EPB Plasterboard lining shall be 75mm x 50mm minimum.

Nogs or framing is required at the perimeter of the fire rated ceiling.

Refer to James Hardie Fire & Acoustic Design Manual.

**Secura™ Interior Flooring**

19mm Secura™ Interior Flooring, fixed to the joists at 200mm centres using 50 x 2.8mm round head nails.

25mm minimum distance from tongue and groove

12mm minimum edge distance

Also refer to James Hardie Secura Interior Flooring Installation Manual.

**Ceiling Insulation**

Install insulation between the joists. Use minimum 75mm thick R1.8 glass wool blanket.

**EPB® Plasterboard Lining**

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 13mm EPB FireSmart® fixed at right angles directly to the underside of floor joists.

All joints must occur on joists and solid blocking. Sheets to be touched fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

41mm x 6g High Thread Drywall screws

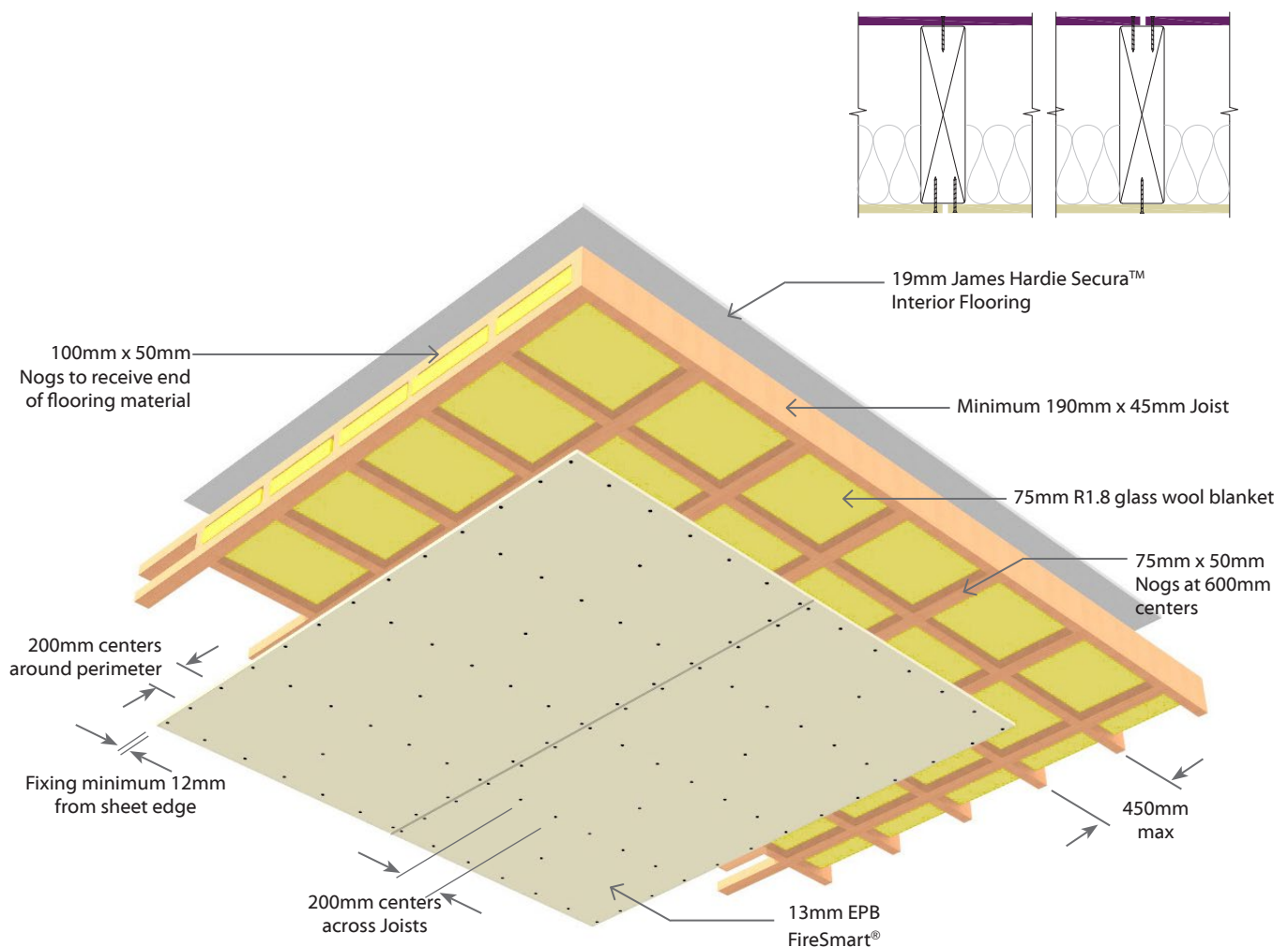
**Fastener Centres**

Fix at 150mm centres around the sheet perimeter and intermediate joists.

Place fasteners no closer than 12mm from the sheet edge and 18mm from sheet ends.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



| Face Paper Product Identification Code |            |
|----------------------------------------|------------|
| 13mm EPB FireSmart®                    | <b>F13</b> |

N.B. The above drawings are for illustrative purposes only.



**EJS1FC60****EPB Plasterboard & James Hardie Secura™ Interior Flooring**

Floor/Ceiling - Timber Joist

Load Bearing

| System Number   | Lining Suffix | FRR      | Noise Control |     | Lining Requirement                                                                                     |
|-----------------|---------------|----------|---------------|-----|--------------------------------------------------------------------------------------------------------|
|                 |               |          | STC           | IIC |                                                                                                        |
| <b>EJS1FC60</b> | <b>-F16</b>   | 60/60/60 | 46            | 33  | 1 x 16mm EPB FireSmart® under the frame<br>19mm James Hardie Secura™ Interior Flooring above the frame |

**Floor Framing**

Timber floor joists shall comply with NZS3604 with a minimum depth of 190mm x 45mm and spaced at no more than 400mm centres.

Solid strutting at 1800mm maximum centres required.

Nogs fixed on the flat to receive the ends of flooring material shall be 100 x 50mm minimum.

Nogs fixed on the flat to receive the EPB Plasterboard lining shall be 75mm x 50mm minimum.

Nogs or framing is required at the perimeter of the fire rated ceiling.

Refer to James Hardie Fire & Acoustic Design Manual.

**Secura™ Interior Flooring**

19mm Secura™ Interior Flooring, fixed to the joists at 200mm centres using 50 x 2.8mm round head nails.

25mm minimum distance from tongue and groove

12mm minimum edge distance

Also refer to James Hardie Secura Interior Flooring Installation Manual.

**EPB® Plasterboard Lining**

NB: The installer must look for the Product Identification Code on the face paper to ensure the correct board type is installed. Refer to the Face Paper Product Identification Code table on this page.

One layer of 16mm EPB FireSmart® fixed at right angles directly to the underside of floor joists.

All joints must occur on joists and solid blocking. Sheets to be touched fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners**

51mm x 7g High Thread Drywall screws

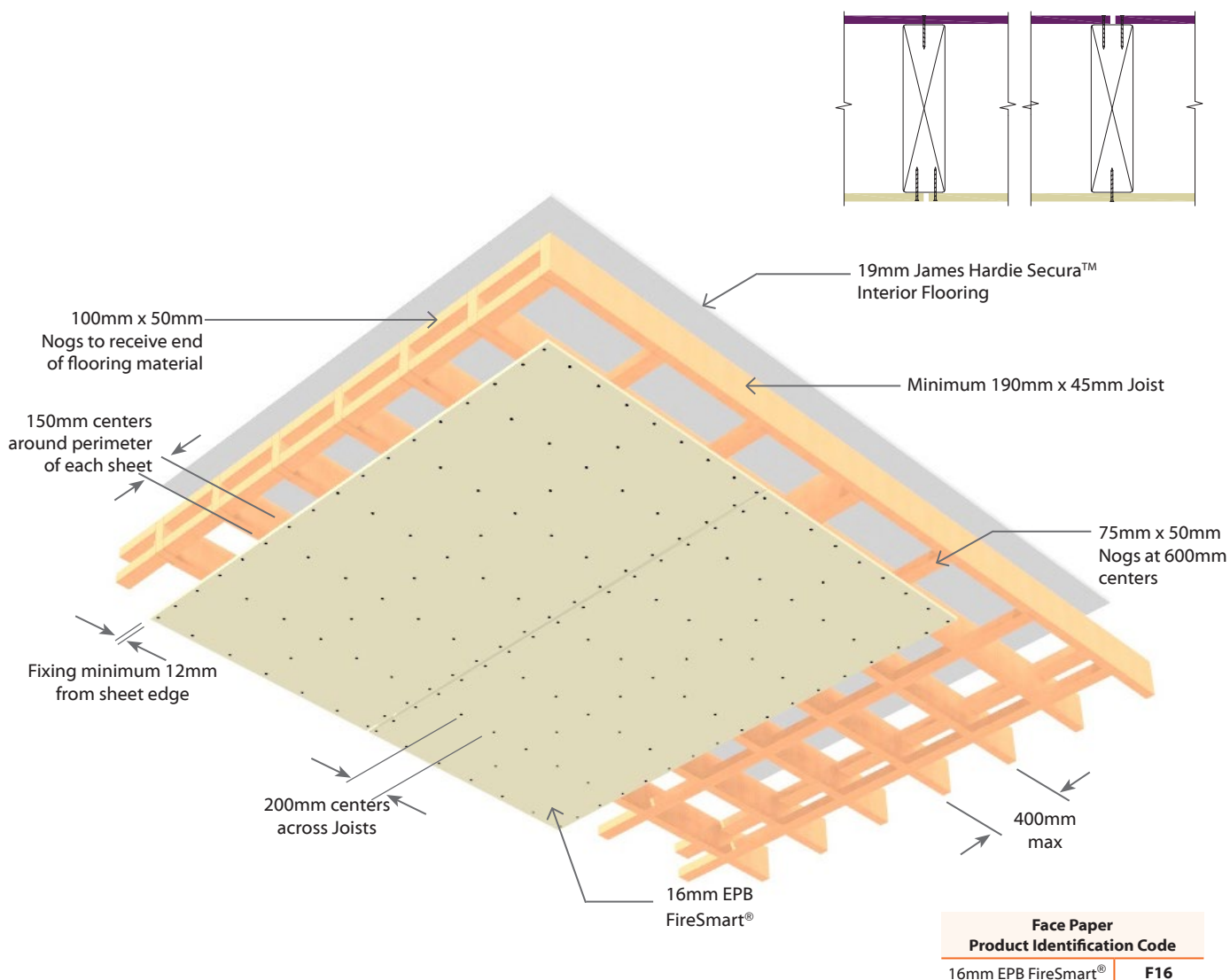
**Fastener Centres**

Fix at 150mm centres around the perimeter of each sheet and 200mm along each joists and at the centre of each nog.

Place fasteners no closer than 12mm from the sheet edge and 18mm from sheet ends.

**Jointing and Finishing of EPB® Plasterboard**

All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. All in accordance with EPB® Plasterboard Installation Guide.



N.B. The above drawings are for illustrative purposes only.



## NOTES





# Floating Floor/Ceiling Systems

**EFJ2DFA60****EPB & Floating James Hardie Secura™ Interior Flooring****Full Intertenancy Acoustic****Direct Fix Clip Floating Floor/Ceiling - Timber Joist****Load Bearing**

| System Number    | Lining Suffix | FRR      | Load Bearing Ability | Noise Control |       | Lining Requirement                                                     |
|------------------|---------------|----------|----------------------|---------------|-------|------------------------------------------------------------------------|
|                  |               |          |                      | STC           | IIC*  |                                                                        |
| <b>EFJ2DFA60</b> | <b>-FS26</b>  | 60/60/60 | LB                   | 67            | 57-76 | 1 x 13mm EPB FireSmart® AND<br>1 x 13mm EPB Standard under the battens |
|                  | <b>-F26</b>   | 60/60/60 | LB                   | 68            | 57-77 | 2 x 13mm EPB FireSmart® under the battens                              |

**Framing**

Timber floor joists shall comply with NZS3604 with a minimum depth of 190mm x 45mm and spaced at no more than 450mm centres. Nogs or framing is required at the perimeter of the Fire Rated ceiling.

Alternatively, a proprietary I-joist system may be used subject to specific structural design and approved by the normal building consent process. Consult the joist manufacturer regarding construction of the solid blocking contained in the floor/ceiling to wall junctions.

**Initial Floor**

Refer to James Hardie Secura™ Interior Flooring Fire Acoustic Floor System Installation Manual. 19mm thick James Hardie Secura™ Interior Flooring laid at right angles to the timber joists in a staggered pattern. Sheet edges other than tongue and groove must be supported over floor joists. When using the site cut sheet pieces, the minimum length of the cut sheet to be used must be 900mm or more.

**Adhesive Requirement (Both flooring layers)**

A continuous 6mm bead of Adhesive to be applied over the joists or channels before laying the flooring materials.

Suitable Adhesive options are:

- Bostik Seal n Flex-1 or
- Holdfast 220LM or
- Sikaflex 11FC

**Fasteners****Initial Secura™ Floor Layer**

Fix Secura™ Interior Flooring across the joists using angular grooved galvanised or stainless steel 50 x 2.87mm gun nails or can be screw fixed using a 50mm x 10g timber thread self-embedding screw.

**Floating Secura™ Floor Layer**

Fix Secura™ Interior Flooring across the Acoustic Channels using 40-45mm x 8-10g self embedding steel screws.

**Fastening Centres (Both flooring layers)**

Fix at 200mm centres along each joist or channel. Fasteners to be placed at 25mm min at long sheet edges and 12mm from transverse edges. Fastener edge distance of 50mm to be maintained at sheet corners.

**Flooring Void**

James Hardie Acoustic Cradles are to be positioned on the James Hardie Secura™ Interior Flooring at 450mm centres max starting from the edge of the room. The Acoustic Cradles need not be aligned with the timber floor joists and can be laid in either direction.

The Cradles are not to be fixed down to the bottom flooring layer.

James Hardie Acoustic Channels to be placed inside the Acoustic Cradles. Acoustic Channels are spaced at 450mm centres maximum.

**Flooring Void Sound Absorber**

Install Sound Absorber between the James Hardie Acoustic Floor Channels. Use 50mm thick R1.2 glass wool blanket with a minimum density of 9.6kg/m³.

**Floating Floor**

James Hardie Secura™ Interior Flooring to be laid at right angles to the Acoustic Channels and fixed at 200mm centres along the channel. Lay the sheets in a staggered pattern. Flooring edges other than tongue and groove must be supported by channels.

Allow 5-8mm gap between Secura™ Interior Flooring and the external/ internal walls. Fill the gaps with an acoustic sealant.

**Acoustic Clip and Battens**

Fasten the Acoustic Clip to the joists at 1200mm centres max (and not less than 900mm centres) to support the metal ceiling battens. Metal battens are spaced at 600mm centres maximum.

**Ceiling Void Sound Absorber**

Install Sound Absorber between the joists above the metal ceiling battens. Use minimum 75mm thick R1.8 glass wool blanket with a minimum density of 9.6kg/m³.

**EPB® Plasterboard Ceiling Lining**

Two layers of EPB® Plasterboard as per specified system above fixed at right angles directly to the underside of the metal battens. All sheet end butt joints shall occur on the battens. Offset the outer layer by 600mm from the inner layer. Sheet joints should be touched fitted.

**Fixing of EPB® Plasterboard Internal Linings****Fasteners (As per Specified System Above)**

| System Number         | 1 <sup>st</sup> Layer       | 2 <sup>nd</sup> Layer |
|-----------------------|-----------------------------|-----------------------|
|                       | Self-Tapping Drywall Screws |                       |
| <b>EFJ2DFA60-FS26</b> | 13mm                        | 13mm                  |
| <b>EFJ2DFA60-F26</b>  | 25 x 6g                     | 41 x 6g               |

**Fastening Centres**

Ceiling sheets shall be fixed at 200mm centres along each metal ceiling batten with butt edges fixed at 100mm centres.

Fasteners to be placed no closer than 12mm from sheet edge.

Avoid outer layer screws from hitting inner layer screws.

**Acoustic Sealant**

A bead of fire retardant Acoustic Sealant must be applied around the perimeter of the first layer and the second layer bedded on the bead.

**Wall/Ceiling Junction**

The internal angle between the ceilings and walls must be protected by Cornice or square stopped corners taped and filled in accordance with EPB® Plasterboard Installation Guide.

**Jointing**

Inner layer: Unstopped.

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped in accordance with the publication entitled EPB® Plasterboard Installation Guide.

**Additional Reference Material**

Refer to James Hardie Secura™ Interior Flooring Installation Manual and the James Hardie Fire and Acoustic Floor System Installation Manual for additional information covering general and wet area installation and penetrations and control joints.

**\*Impact Insulation Class (IIC)**

IIC of 57 is achieved with a bare floor.

IIC of 58 is achieved with loose laid Vinyl.

IIC of 75 is achieved with 40oz loop pile carpet on 8mm foam chip underlay.

IIC of 76 is achieved with 40oz loop pile carpet on waffle underlay.



EFJ2DFA60

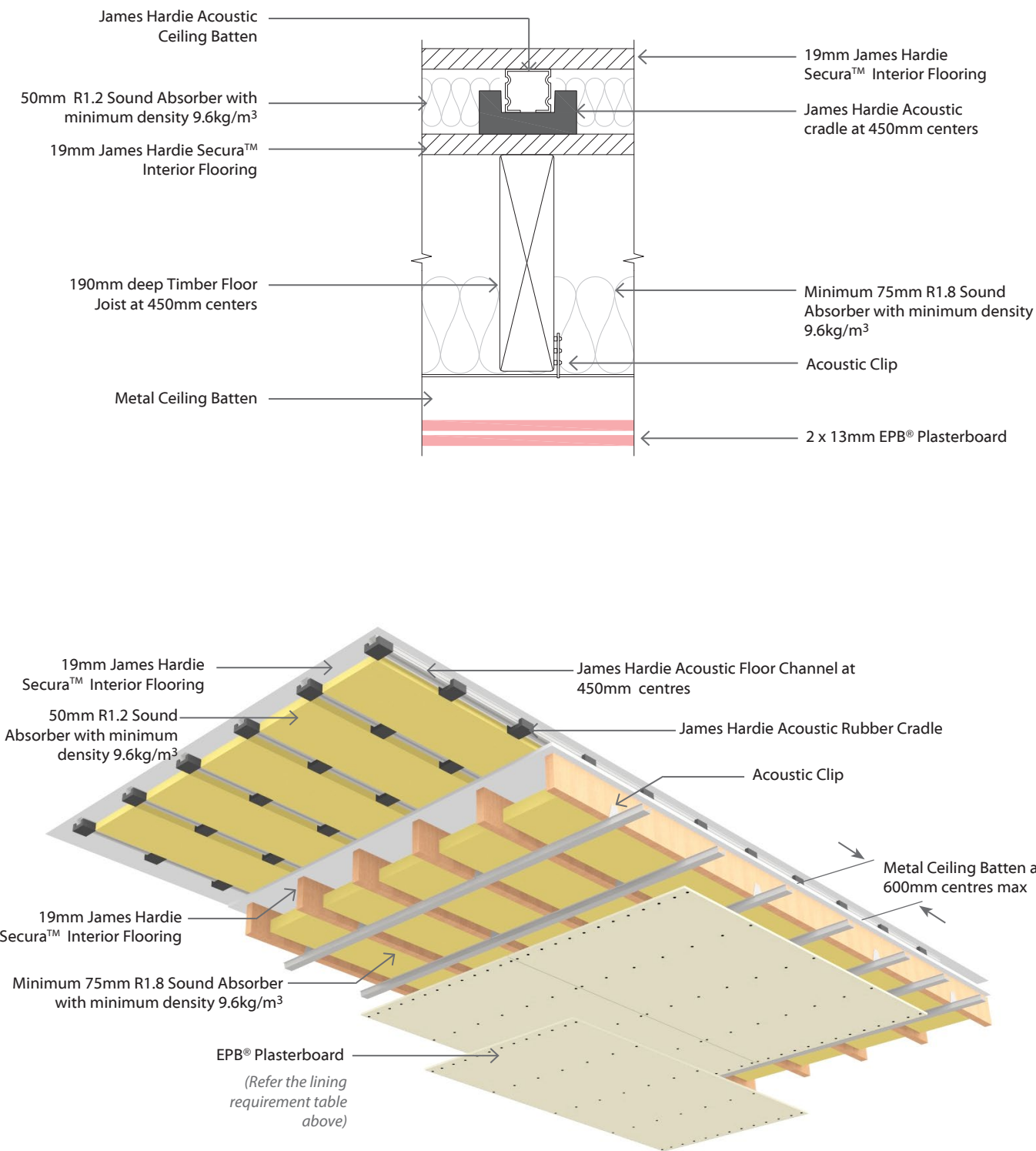
EPB & Floating James Hardie Secura™ Interior Flooring

Full Intertenancy Accoustic

Direct Fix Clip Floating Floor/Ceiling - Timber Joist

Load Bearing

Structural Detail



N.B. The above drawings are for illustrative purposes only.

| Face Paper<br>Product Identification Code |     |
|-------------------------------------------|-----|
| 13mm EPB® Standard                        | S13 |
| 13mm EPB FireSmart®                       | F13 |







# Construction Details

## Boundary Wall & Post Fire Stability

### Post Fire Stability

The fire rated walls built close to boundary are required to achieve post fire stability as per section 2.2.4 of B1/VM1 of the NZBC.

The bottom plate of these walls can be fixed in accordance with the table shown below using Pryda® Brace Anchor or any equivalent hold downs on either side of the stud. These fixings ensure that when a boundary wall is exposed to post fire face loads, it doesn't collapse in any direction. Contact the project structural engineer for an alternate design to achieve post fire stability if the published solutions are not suitable for the project.

Note: Post fire stability for steel framing must be as per SED.

### Framing

The frame sizes and spacing mentioned in this manual are a minimum requirement. Bigger framing sections required to suit a proprietary cladding system or to suit higher wind pressures, will not affect the FRR, provided that the other system requirements presented in this manual are adhered to.

Higher levels of timber treatments or steel coating to enhance their durability will not alter the fire or acoustic performance of the systems. Sheet set-out must be determined by the designer including the location of all expansion and control joints to enable correct framing set-out (these must be in accordance with the relevant James Hardie product literature).

| CONCRETE FOUNDATION   |                                                                              |         |          |          |
|-----------------------|------------------------------------------------------------------------------|---------|----------|----------|
| Wall Height max (mm)  | 2400                                                                         | 3000    | 3000     | 3700     |
| Bottom Plate (mm)     | 90 x 45                                                                      | 90 x 45 | 140 x 45 | 140 x 45 |
| Stud Spacing max (mm) | 400                                                                          | 300     | 600      | 400      |
| Nog Spacing (mm)      | 800                                                                          | 800     | 800      | 800      |
| Hold Down brackets    | Pryda® Bracing Anchor or any equivalent hold downs to both sides of the stud |         |          |          |

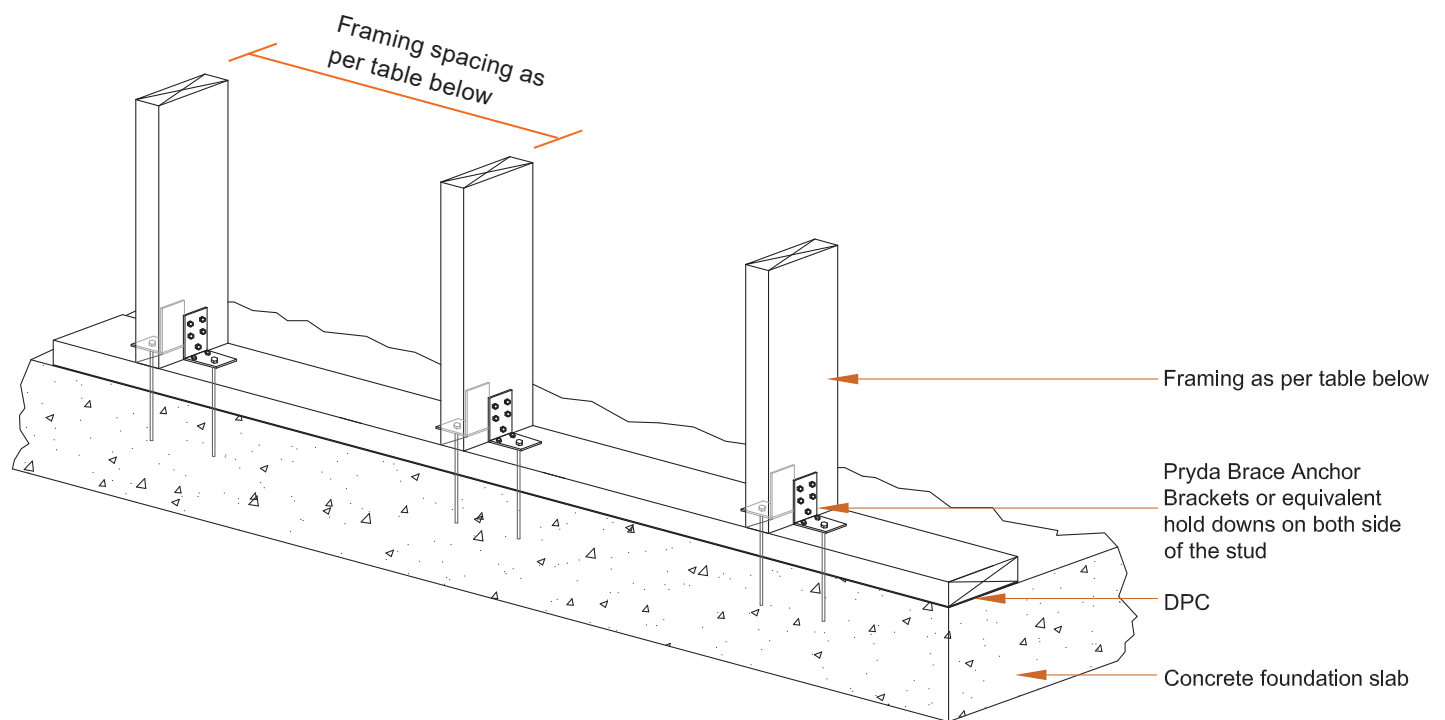
| BLOCK WALL FOUNDATION |                                                                              |          |
|-----------------------|------------------------------------------------------------------------------|----------|
| Wall Height max (mm)  | 3000                                                                         | 3700     |
| Bottom Plate (mm)     | 140 x 45                                                                     | 140 x 45 |
| Stud Spacing max (mm) | 600                                                                          | 400      |
| Nog Spacing (mm)      | 800                                                                          | 800      |
| Hold Down brackets    | Pryda® Bracing Anchor or any equivalent hold downs to both sides of the stud |          |

| TIMBER FOUNDATION     |                                                                              |                     |          |
|-----------------------|------------------------------------------------------------------------------|---------------------|----------|
|                       | Joist parallel                                                               | Joist Perpendicular |          |
| Joist min (mm)        | 190                                                                          | 190                 | 190      |
| Wall Height max (mm)  | 2700                                                                         | 2700                | 3700     |
| Bottom Plate (mm)     | 140 x 45                                                                     | 140 x 45            | 140 x 45 |
| Stud Spacing max (mm) | 600                                                                          | 600                 | 300      |
| Nog Spacing max (mm)  | 800                                                                          | 800                 | 800      |
| Hold Down brackets    | Pryda® Bracing Anchor or any equivalent hold downs to both sides of the stud |                     |          |

\*For higher stud heights, contact Elephant Plasterboard(NZ) Ltd.



## Boundary Wall Bottom Plate Fixing - Concrete Foundation

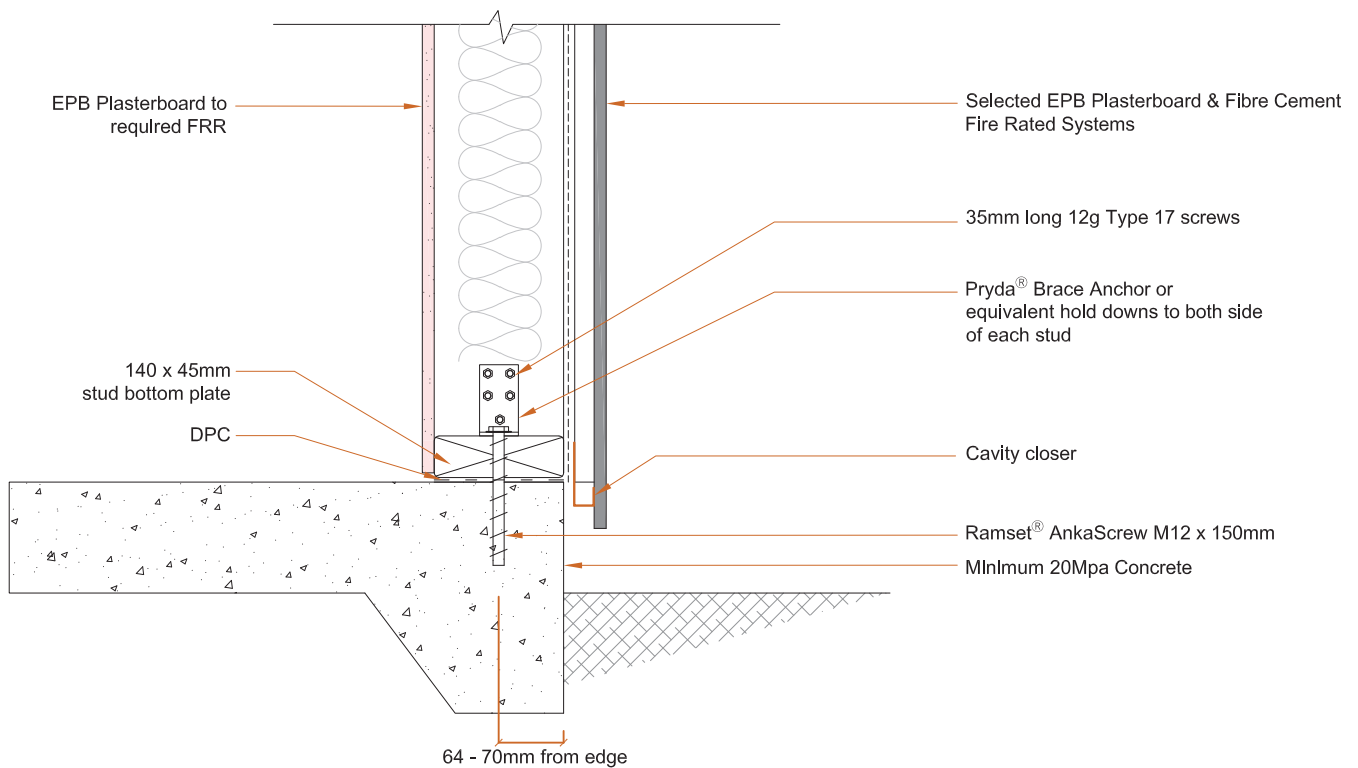
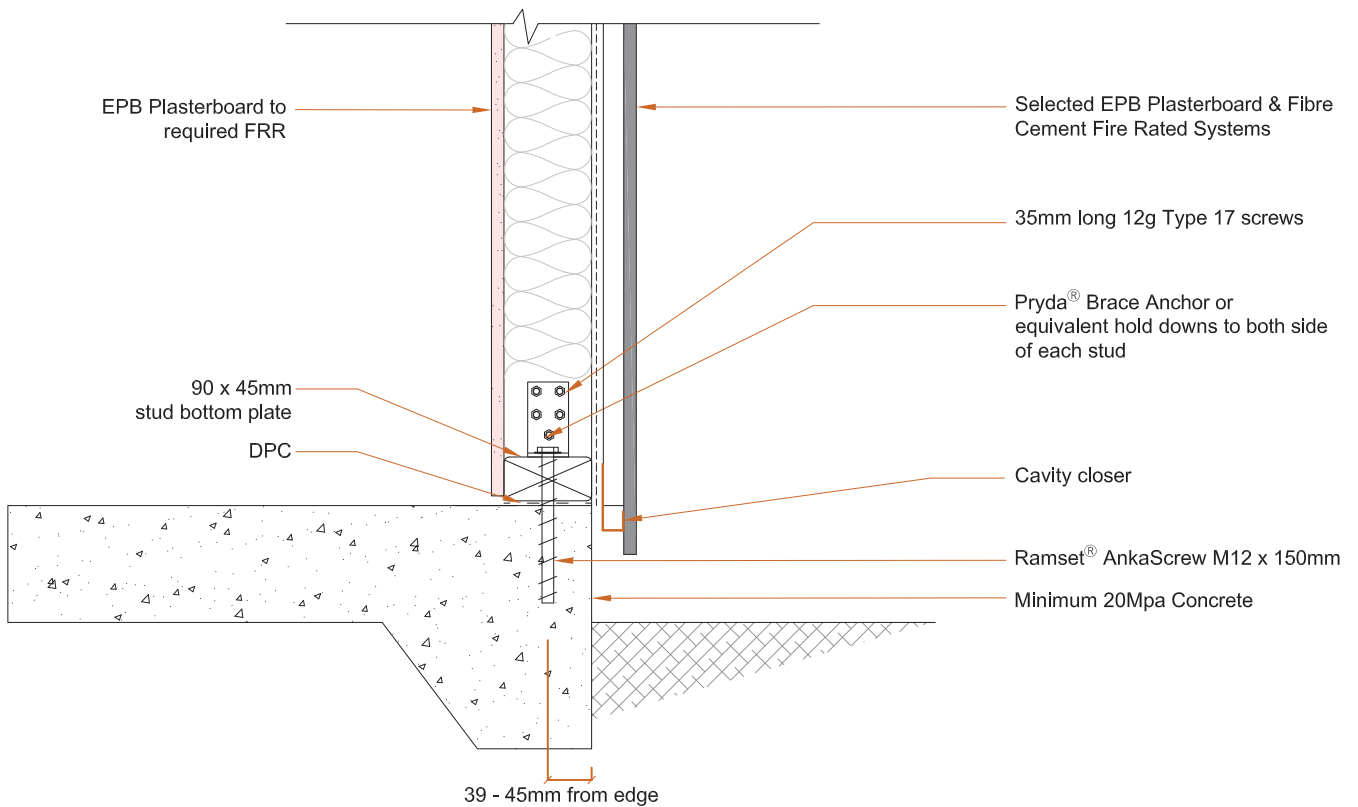
**Note:**

This detail is only indicative, confirmation will be required by a structural engineer for stability NZBC B1 by designer. Elephant plasterboard (NZ) Ltd accepts no liability if not verified by an engineer

|                       |                                                                         |         |          |          |
|-----------------------|-------------------------------------------------------------------------|---------|----------|----------|
| Wall Height max (mm)  | 2400                                                                    | 3000    | 3000     | 3700     |
| Bottom Plate (mm)     | 90 x 45                                                                 | 90 x 45 | 140 x 45 | 140 x 45 |
| Stud Spacing max (mm) | 400                                                                     | 300     | 600      | 400      |
| Nog Spacing (mm)      | 800                                                                     | 800     | 800      | 800      |
| Hold Down brackets    | Pryda® Brace Anchor or equivalent hold downs to both sides of each Stud |         |          |          |

EFC-002

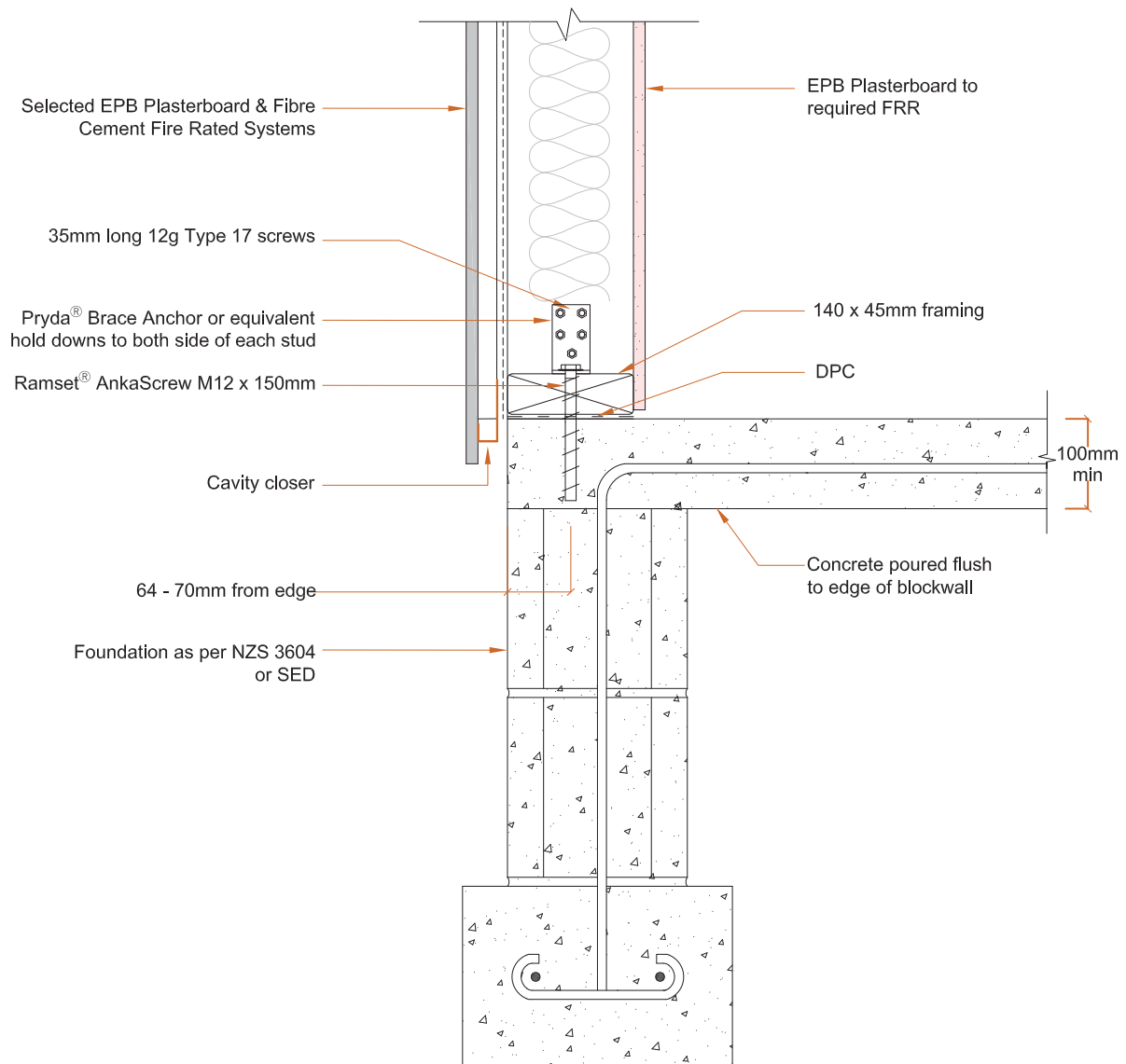
## Post Fire Stability - Concrete Foundation



|                       |                                                                         |         |          |          |
|-----------------------|-------------------------------------------------------------------------|---------|----------|----------|
| Wall Height max (mm)  | 2400                                                                    | 3000    | 3000     | 3700     |
| Bottom Plate (mm)     | 90 x 45                                                                 | 90 x 45 | 140 x 45 | 140 x 45 |
| Stud Spacing max (mm) | 400                                                                     | 300     | 600      | 400      |
| Nog Spacing (mm)      | 800                                                                     | 800     | 800      | 800      |
| Hold Down brackets    | Pryda® Brace Anchor or equivalent hold downs to both sides of each Stud |         |          |          |



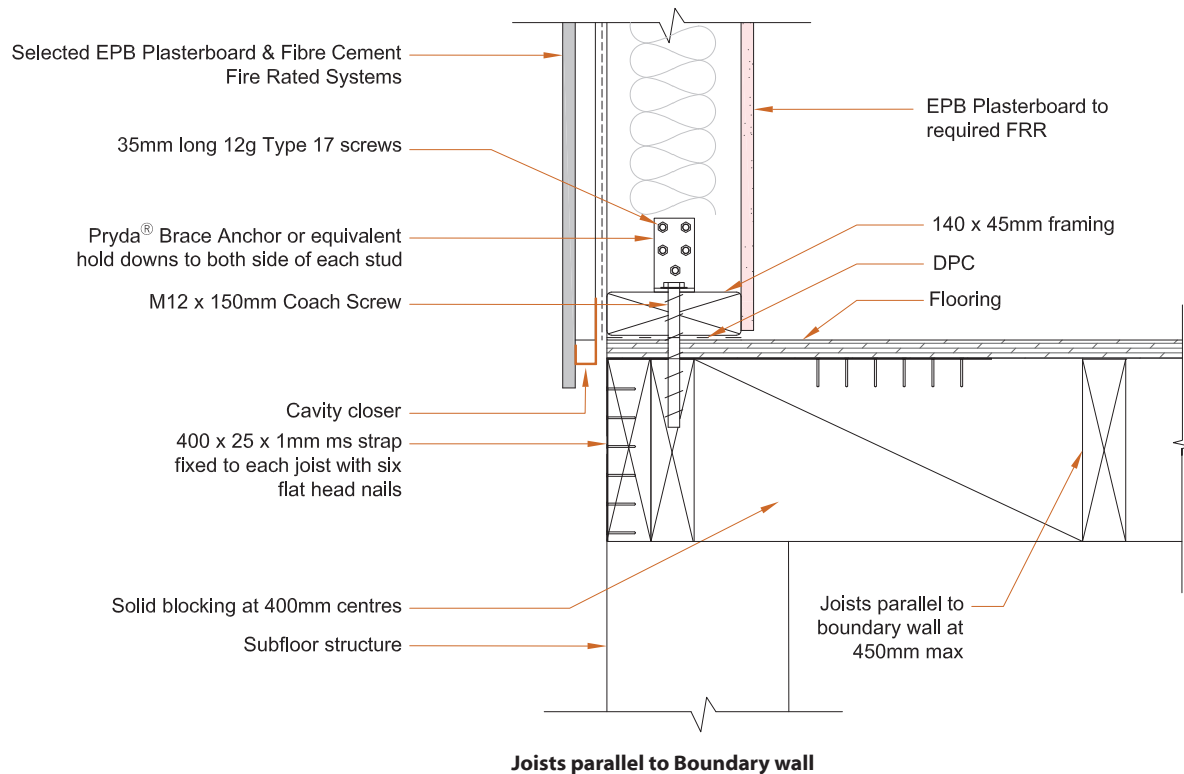
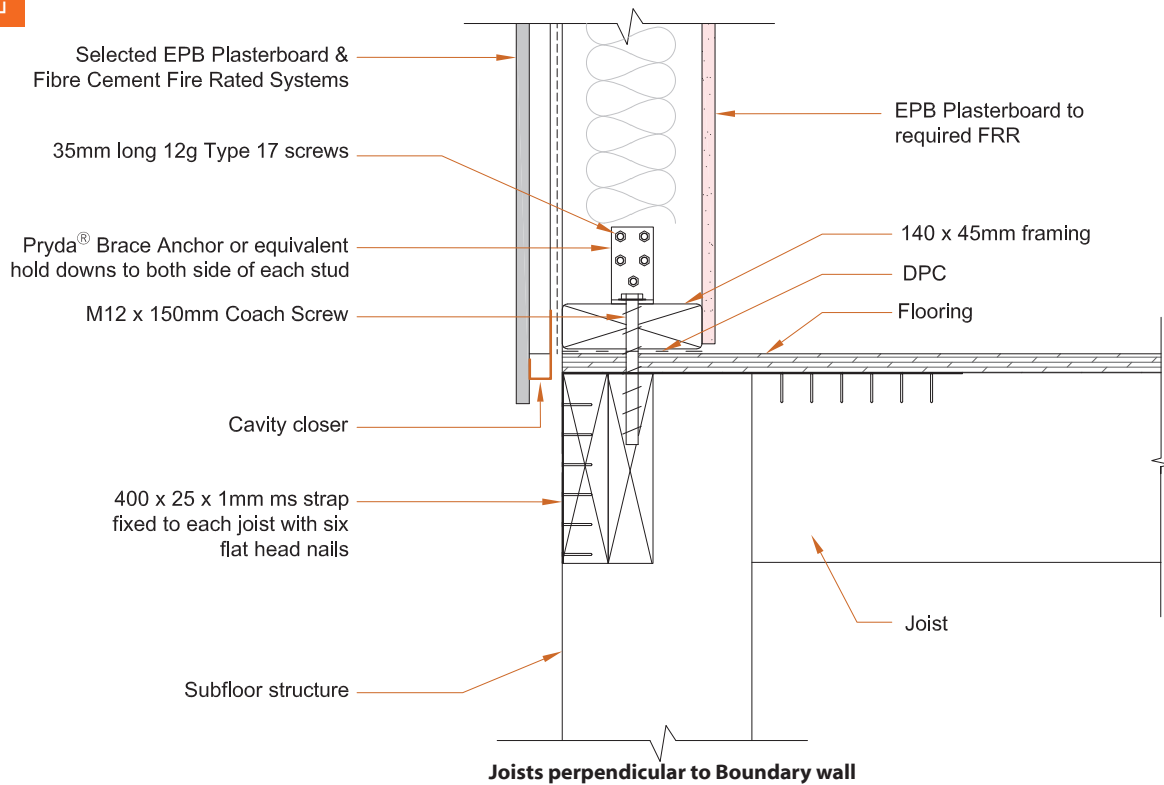
## Post Fire Stability - Block wall Foundation



|                       |                                                                         |          |
|-----------------------|-------------------------------------------------------------------------|----------|
| Wall Height max (mm)  | 3000                                                                    | 3700     |
| Bottom Plate (mm)     | 140 x 45                                                                | 140 x 45 |
| Stud Spacing max (mm) | 600                                                                     | 400      |
| Nog Spacing max (mm)  | 800                                                                     | 800      |
| Hold Down brackets    | Pryda® Brace Anchor or equivalent hold downs to both sides of each Stud |          |

EFC-004

## Post Fire Stability - Timber Foundation



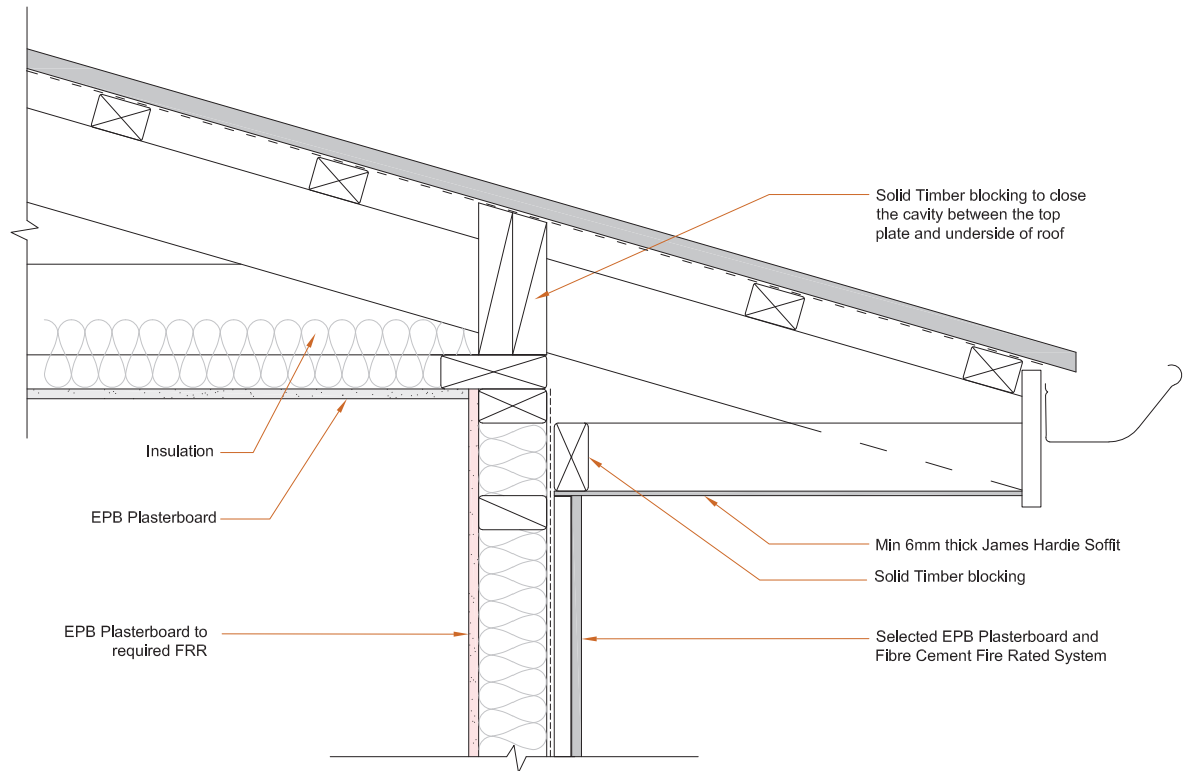
|                       | Joist Perpendicular                                                     |          | Joist Parallel |
|-----------------------|-------------------------------------------------------------------------|----------|----------------|
| Wall Height max (mm)  | 2700                                                                    | 3700     | 2700           |
| Bottom Plate (mm)     | 140 x 45                                                                | 140 x 45 | 140 x 45       |
| Stud Spacing max (mm) | 600                                                                     | 300      | 600            |
| Nog Spacing max (mm)  | 800                                                                     | 800      | 800            |
| Joist min (mm)        | 190                                                                     | 190      | 190            |
| Hold Down brackets    | Pryda® Brace Anchor or equivalent hold downs to both sides of each Stud |          |                |





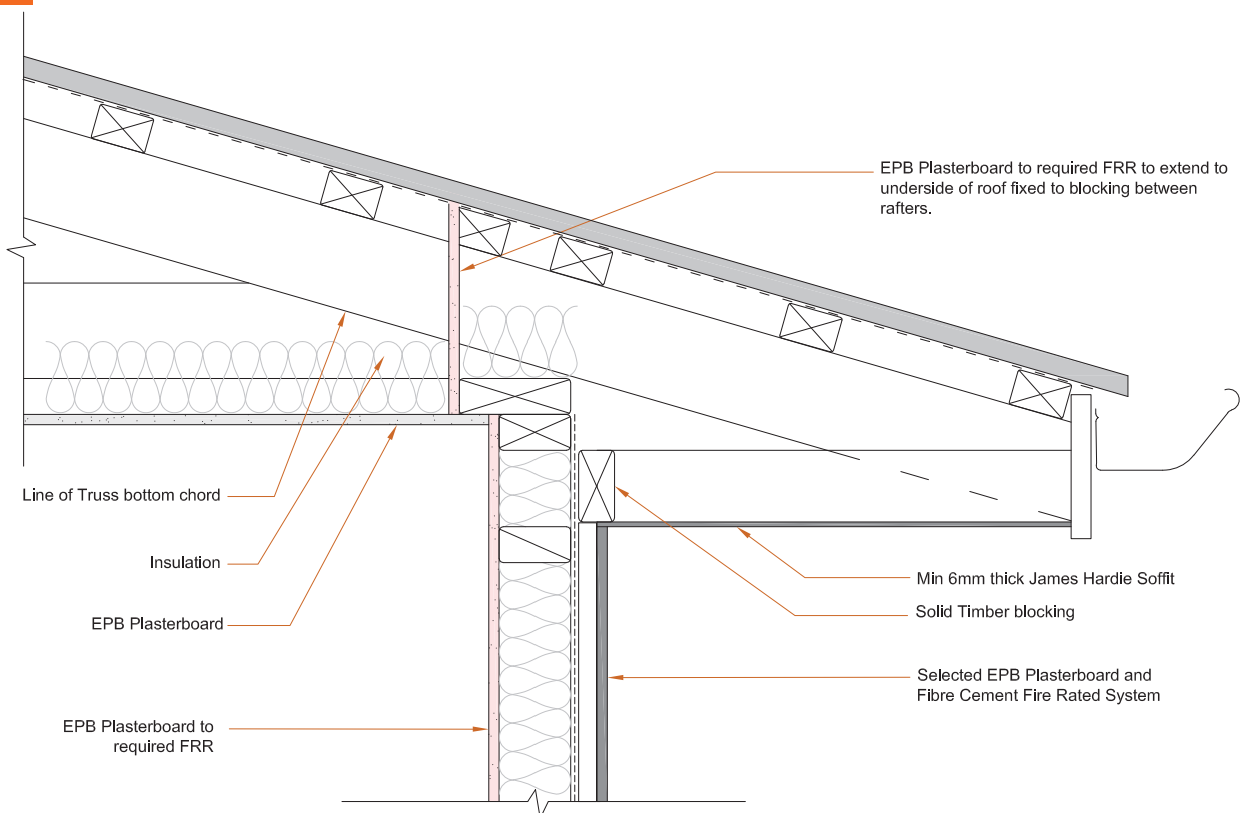
EFC-006

## Soffit Detail



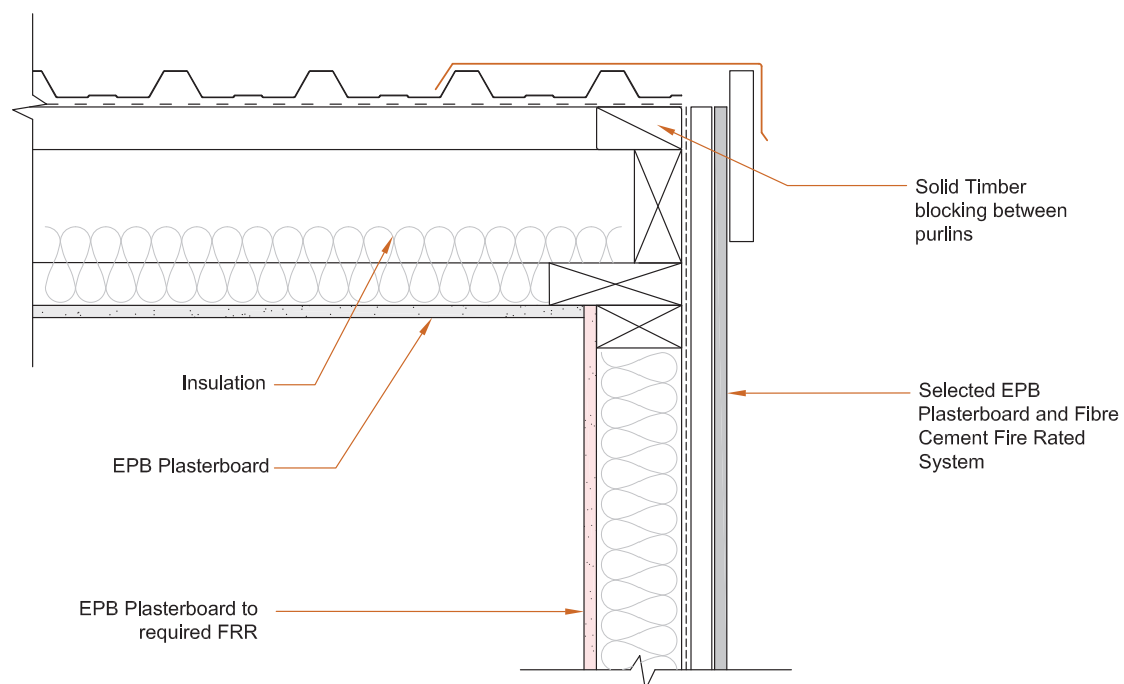
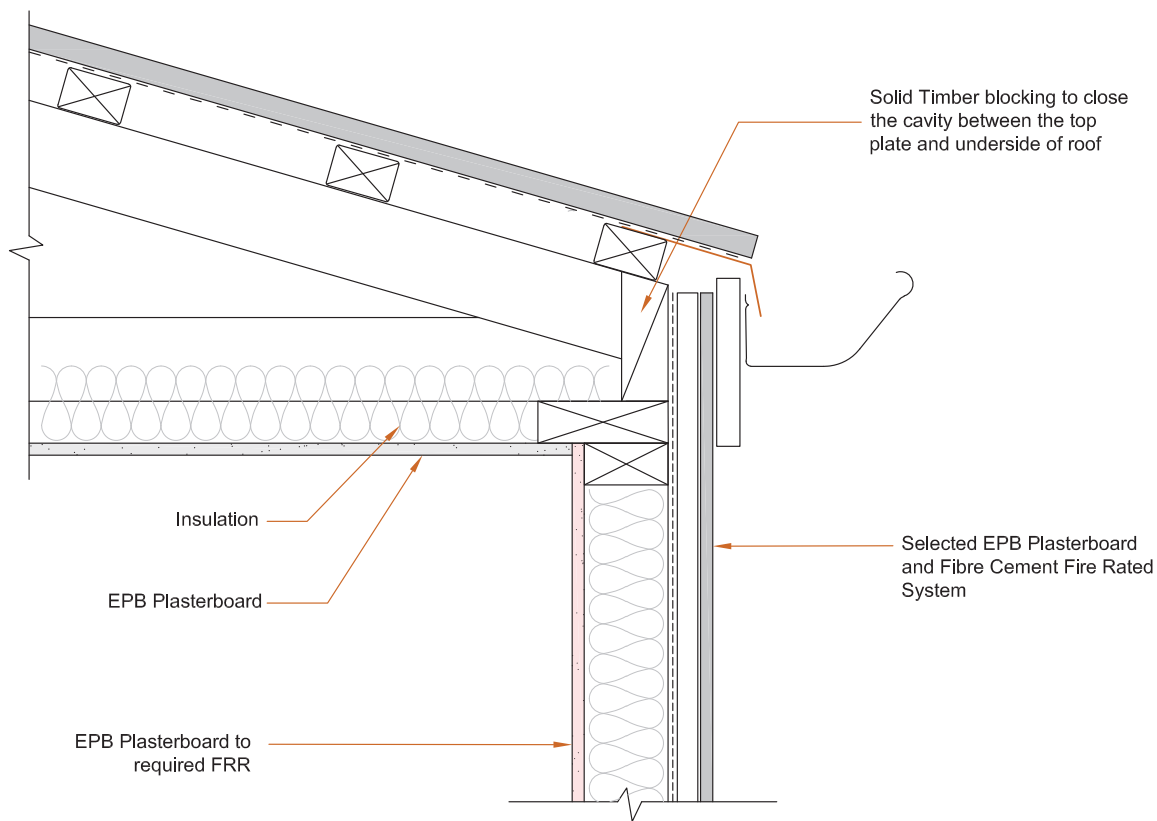
EFC-005

## Soffit Detail - 2



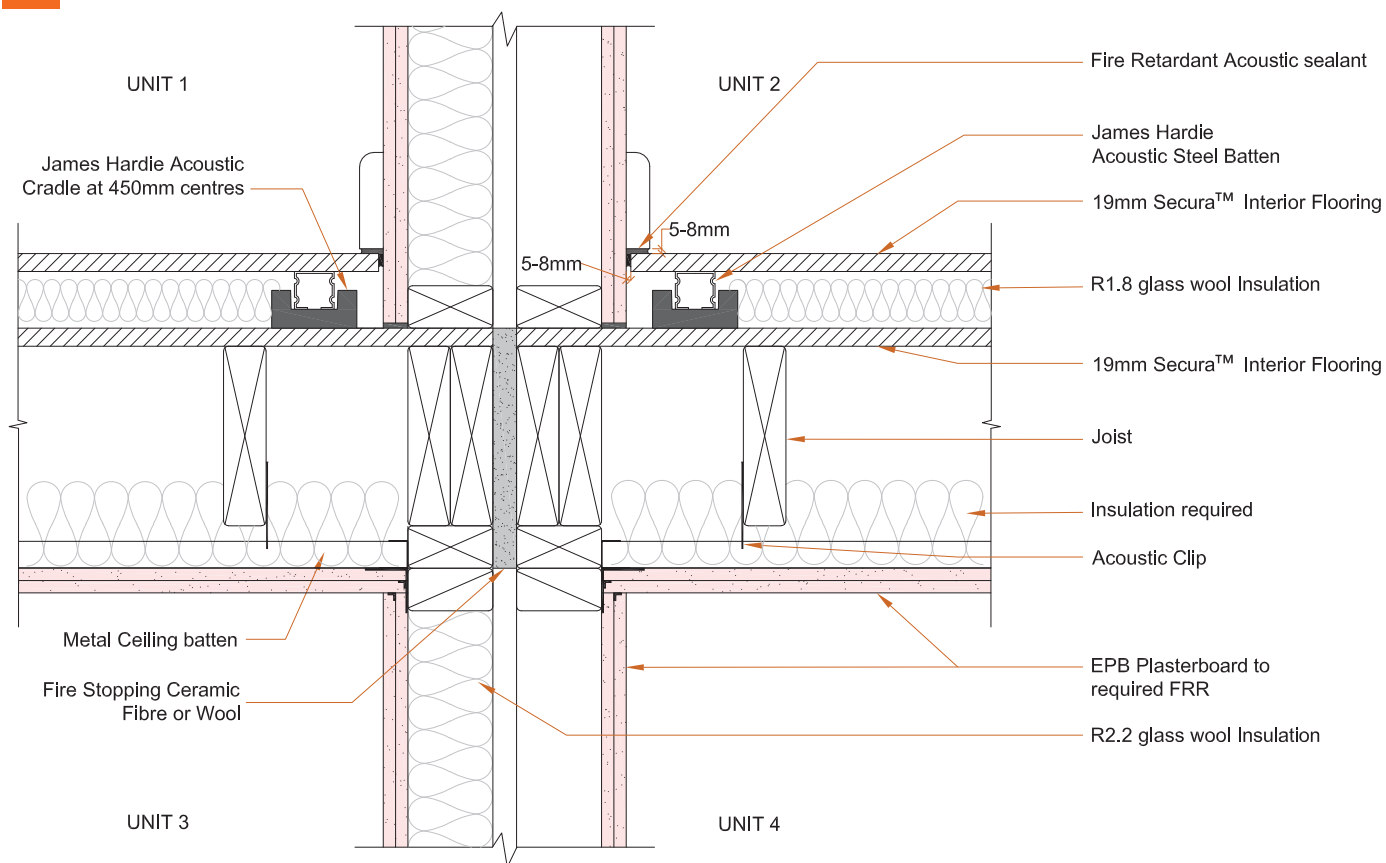
EFC-007

## NIL Soffit Detail



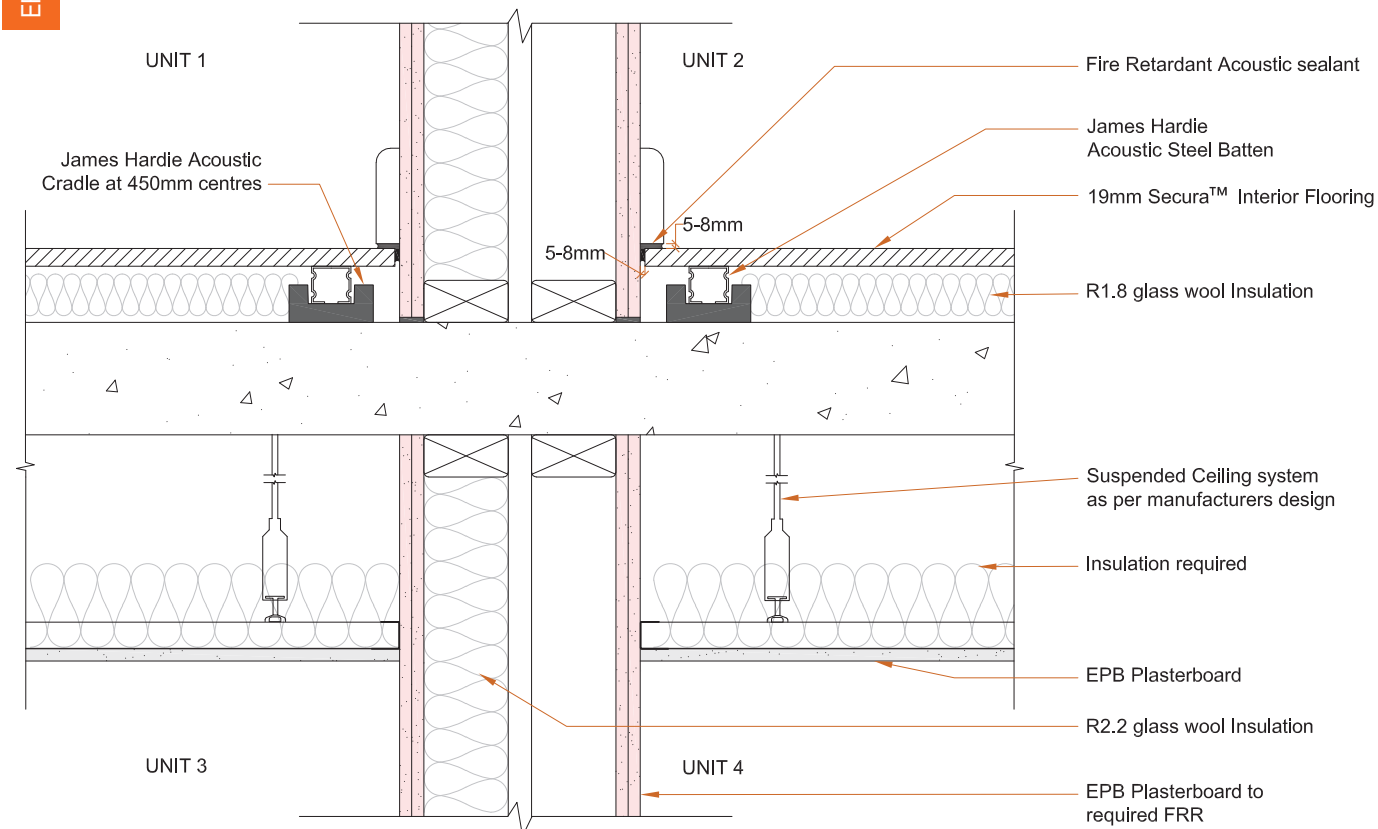
EFC-009

## Timber Floor to Floor Intertency Wall Junction

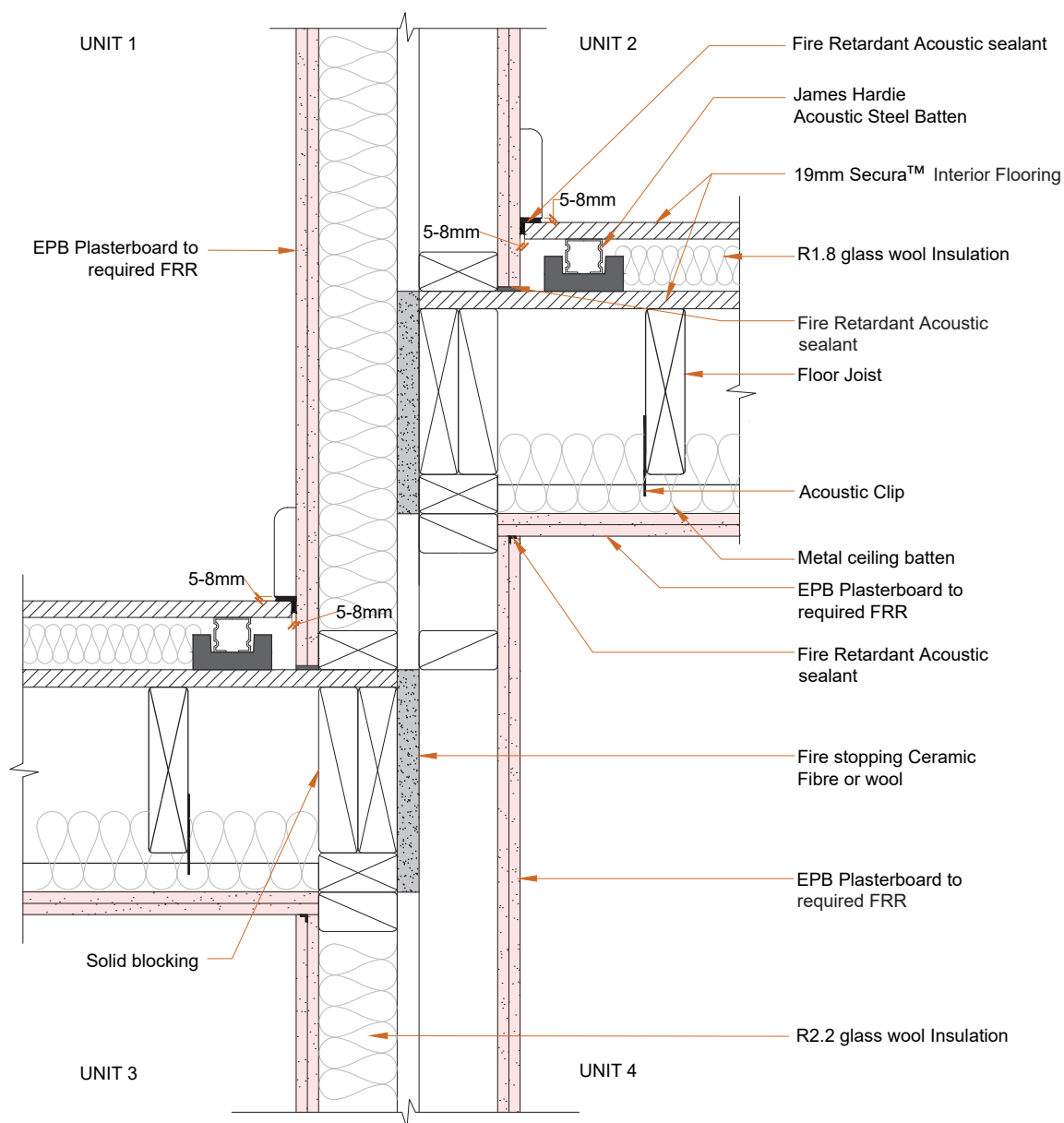


EFC-008

## Concrete Slab to Timber Intertency Wall Junction

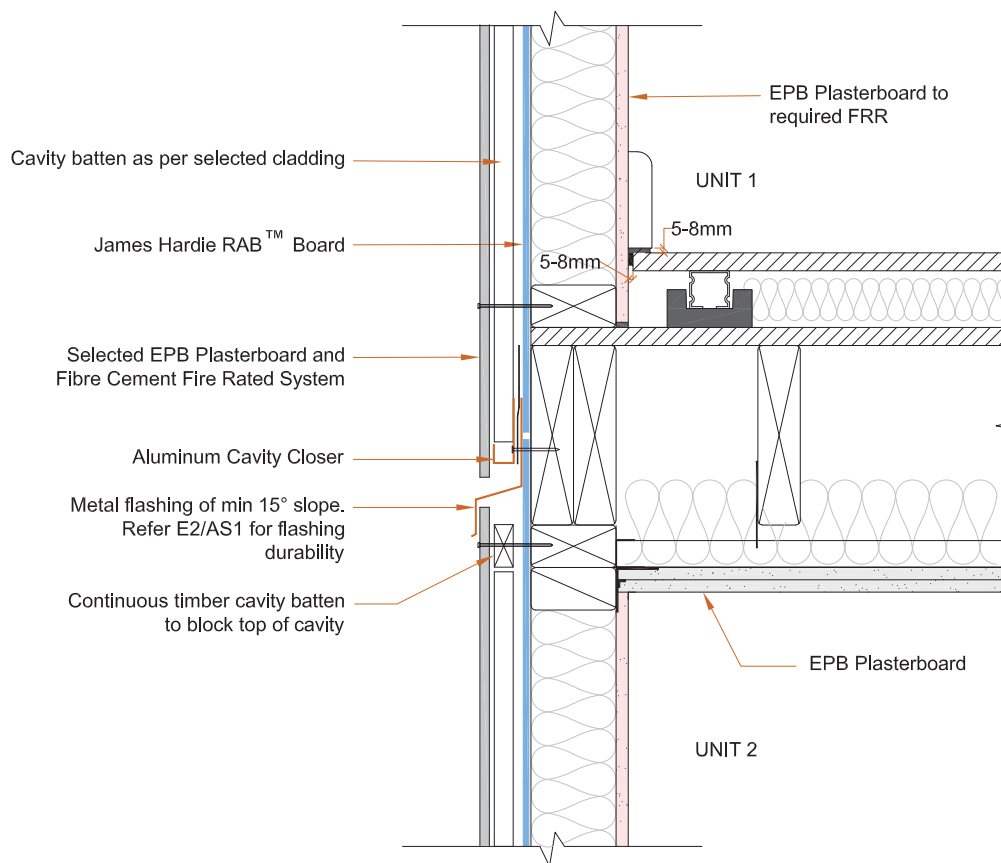


### Split Level Floor to Intertenant Wall Junction



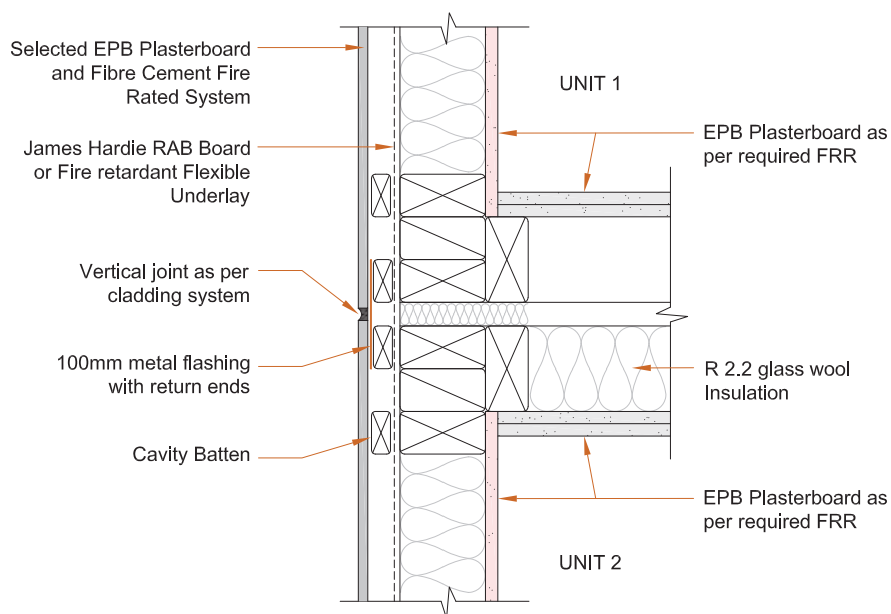
EFC-011

## Intertenancy Fire Separation

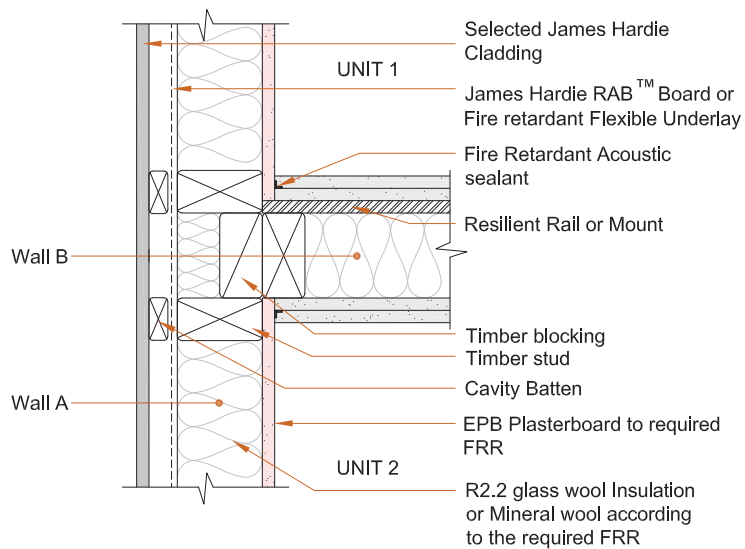


EFC-012

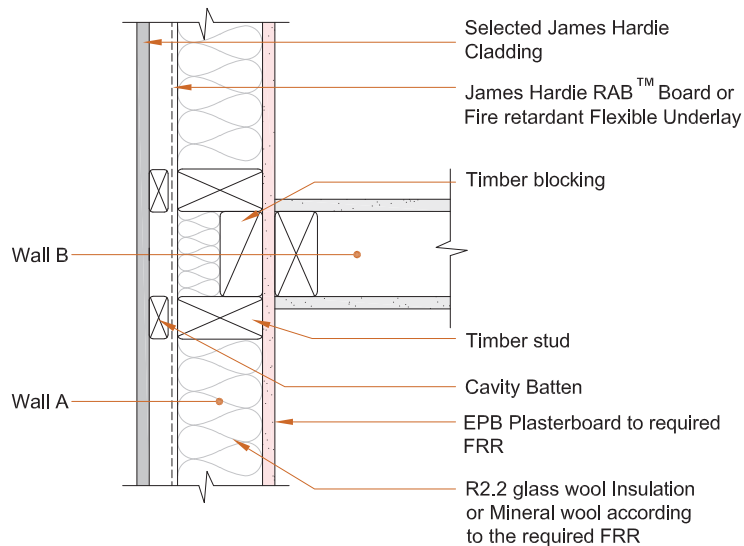
## Intertenancy Wall to External Wall Junction



## Single Timber Frame Wall to External Wall Junction

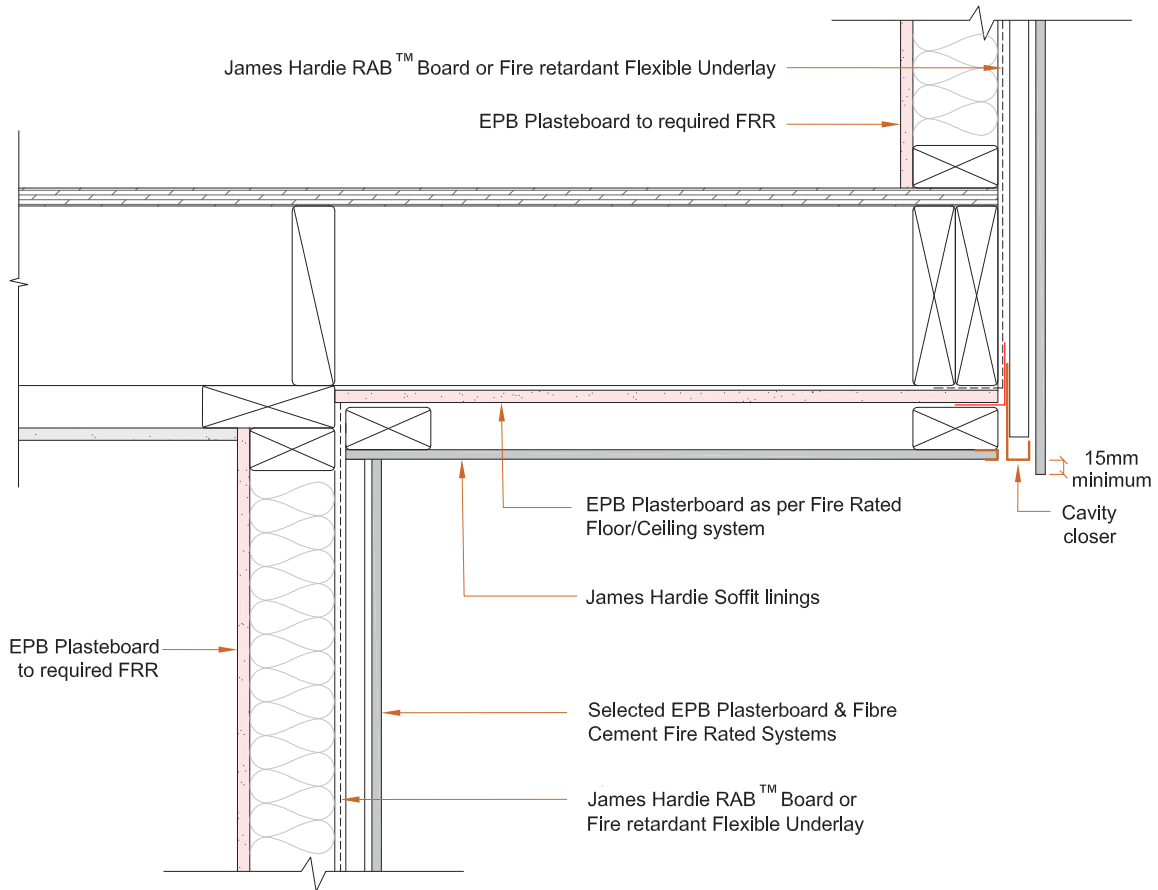


For Systems where the difference in FRR between Wall A & B is 30 minutes or less



For Systems where the difference in FRR between Wall A & B is higher than 30 minutes, the lining of wall with higher FRR is continuous (Wall A in this example)







## EPB Plasterboard Product Range

| EPB PLASTERBOARD<br>PRODUCT RANGE                                  | EDGE<br>TYPE | WIDTH<br>(mm) | AVERAGE<br>WEIGHT<br>(Kg/m <sup>2</sup> ) | LENGTH<br>(m) |     |     |     |     |     |     |     | PRIMARY FUNCTIONS    |                                    |         |                    |               |                     |                    |
|--------------------------------------------------------------------|--------------|---------------|-------------------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|----------------------|------------------------------------|---------|--------------------|---------------|---------------------|--------------------|
|                                                                    |              |               |                                           | 2.4           | 2.7 | 3.0 | 3.3 | 3.6 | 4.2 | 4.8 | 6.0 | Horizontal<br>Fixing | Span 600<br>Centres on<br>Ceilings | Bracing | Fire<br>Resistance | Noise Control | Impact<br>Resistant | Water<br>Resistant |
| 10mm EPB <sup>®</sup> Standard                                     | TE/TE        | 1200          | 6.9                                       | ✓             | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |                      |                                    | ✓       | ✓                  |               |                     |                    |
| 10mm EPB <sup>®</sup> Standard                                     | TE/SE        | 1200          | 6.9                                       | ✓             |     | ✓   |     | ✓   | ✓   | ✓   | ✓   | ✓                    |                                    | ✓       |                    |               |                     |                    |
| 10mm EPB <sup>®</sup> Standard - WIDE                              | TE/SE        | 1350          | 6.9                                       |               |     |     |     | ✓   |     | ✓   | ✓   | ✓                    |                                    | ✓       |                    |               |                     |                    |
| 13mm EPB <sup>®</sup> Standard                                     | TE/TE        | 1200          | 8.8                                       | ✓             | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |                      | ✓                                  |         | ✓                  |               |                     |                    |
| 10mm EPB CeilingSmart <sup>®</sup>                                 | TE/TE        | 1200          | 7.4                                       | ✓             | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |                      | ✓                                  |         | ✓                  |               |                     |                    |
| 10mm EPB FireSmart <sup>®</sup>                                    | TE/TE        | 1200          | 7.4                                       | ✓             | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |                      | ✓                                  |         | ✓                  |               |                     |                    |
| 13mm EPB FireSmart <sup>®</sup>                                    | TE/TE        | 1200          | 11.7                                      | ✓             | ✓   | ✓   | ✓   | ✓   |     |     |     |                      | ✓                                  |         | ✓                  |               |                     |                    |
| 16mm EPB FireSmart <sup>®</sup>                                    | TE/TE        | 1200          | 14.7                                      | ✓             | ✓   | ✓   |     |     |     |     |     |                      |                                    |         | ✓                  | ✓             | ✓                   |                    |
| 10mm EPB BraceSmart <sup>®</sup> /NoiseSmart <sup>®</sup> *        | TE/TE        | 1200          | 8.9                                       | ✓             | ✓   | ✓   |     | ✓   |     | ✓   |     |                      | ✓                                  | ✓       | ✓                  | ✓             |                     |                    |
| 10mm EPB BraceSmart <sup>®</sup> /NoiseSmart <sup>®</sup> *        | TE/SE        | 1200          | 8.9                                       |               |     |     |     |     |     | ✓   |     | ✓                    |                                    | ✓       |                    | ✓             |                     |                    |
| 10mm EPB BraceSmart <sup>®</sup> /NoiseSmart <sup>®</sup> - WIDE * | TE/SE        | 1350          | 8.9                                       |               |     |     |     |     |     | ✓   |     | ✓                    |                                    | ✓       |                    | ✓             |                     |                    |
| 13mm EPB BraceSmart <sup>®</sup> /NoiseSmart <sup>®</sup> *        | TE/TE        | 1200          | 12.2                                      | ✓             | ✓   | ✓   | ✓   | ✓   |     |     |     |                      | ✓                                  | ✓       | ✓                  | ✓             | ✓                   |                    |
| 10mm EPB AquaSmart <sup>®</sup>                                    | TE/TE        | 1200          | 8.3                                       | ✓             | ✓   | ✓   |     | ✓   |     |     |     |                      |                                    |         | ✓                  | ✓             |                     | ✓                  |
| 10mm EPB AquaSmart <sup>®</sup>                                    | TE/SE        | 1200          | 8.3                                       | ✓             |     |     |     |     |     | ✓   |     | ✓                    |                                    |         |                    |               |                     | ✓                  |
| 13mm EPB AquaSmart <sup>®</sup>                                    | TE/TE        | 1200          | 11.7                                      | ✓             | ✓   | ✓   |     | ✓   |     |     |     |                      | ✓                                  |         | ✓                  | ✓             |                     | ✓                  |

TE/TE = Tapered Both Edges      TE/SE = Tapered One Edge, Square the Other

The above table details the product's Primary functions.  
Some products may perform more than the functions indicated

### \*Product Name Change : EPB MultiSmart<sup>®</sup> Range renamed to EPB BraceSmart<sup>®</sup>/NoiseSmart<sup>®</sup>

The 10mm & 13mm EPB MultiSmart<sup>®</sup> range will now be referred to as 10mm & 13mm EPB BraceSmart<sup>®</sup>/NoiseSmart<sup>®</sup>, reflecting its dual performance in bracing and noise control applications.  
Please note that all product specifications, performance characteristics and installation methods remain unchanged.



EPB Plasterboard Product Range

EPB® Standard



10mm TE/TE



10mm TE/SE



10mm WIDE TE/SE



13mm TE/TE

EPB CeilingSmart®



10mm TE/TE

EPB FireSmart®



10mm TE/TE



13mm TE/TE



16mm TE/TE

EPB BraceSmart/  
EPB NoiseSmart®



10mm TE/TE



10mm TE/SE



10mm WIDE TE/SE



13mm TE/TE

EPB AquaSmart®



10mm TE/TE



10mm TE/SE



13mm TE/TE





FOR MORE INFORMATION

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