

EJH1SL30

EPB & Selected James Hardie Fibre Cement Cladding

Two Way FRR

External Wall - Steel Frame

Load Bearing

System Number	Lining Suffix	Fire Rating	Insulation	Noise Control STC	Lining Requirement
EJH1SL30	-M13	30/30/30	JH Mineral	42 - 47	1 x 13mm Elephant MultiSmart on Internal side Selected James Hardie Fibre Cement cladding to External side
	-F16	30/30/30	JH Mineral	42 - 47	1 x 16mm Elephant FireSmart on Internal side Selected James Hardie Fibre Cement 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.

Underlay

For the type of allowable underlay refer to table below.

	EH Wind Zone	Other Wind Zone
Buildings <10m	RAB	Flexible Underlay
Buildings >10m	RAB	RAB

Also please note that some James Hardie Cladding systems always require the use of RAB in order to achieve the stated fire ratings. If RAB is required, refer system EJRH1SL30 in this manual.

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.

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 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 Rigid Air Barrier Installation Manual.

Cavity Batten

Cavity battens to be installed according to the selected type of James Hardie cladding and as per the relevant technical specification, refer page 13 of this manual.

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

But besides the selected cladding type allowing for a direct fix option, if RAB is required based on the EH Wind zone or building higher than 10m criteria, cladding must always be installed over cavity battens.

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 systems.

Cladding Systems - Allowed	Cavity Batten Type
Linea™	Timber Cavity Batten
Linea Oblique™	
James Hardie Weatherboard™	
Stria™	
HardieFlex™	
Monotek™	
Axon™	

Refer to page 13 of this manual for the above mentioned cladding's relevant technical literature. Also refer to James Hardie Fire & Acoustic Design Manual.

For other cladding options in the list below, refer to system EJRH1SL30 in this manual, as RAB board is always required.

Cladding Systems - Not allowed	Cavity Batten Type
Exotec™	Top Hat System
Titan™	CLD Structural Cavity Batten
EasyLap™	
Stria™ (Horizontally fixed)	
Axon™	

Wall Insulation

Insulation must be installed between studs and nogs. Use 90mm thick James Hardie Mineral insulation.

Elephant Plasterboard Lining

One layer of Elephant Plasterboard lining as per specified system above 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 with the same cross sectional dimensions as the studs. The layer is fixed hard to the floor. Sheet shall be touch fitted.

Fixing of Elephant Plasterboard Internal Linings

Fasteners (As per Specified System Above)

System Number	Single Layer
	Self-Tapping Drywall Screws
EJH1SL30-M13	13mm
	32 x 6g
EJH1SL30-F16	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 Elephant Plasterboard

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



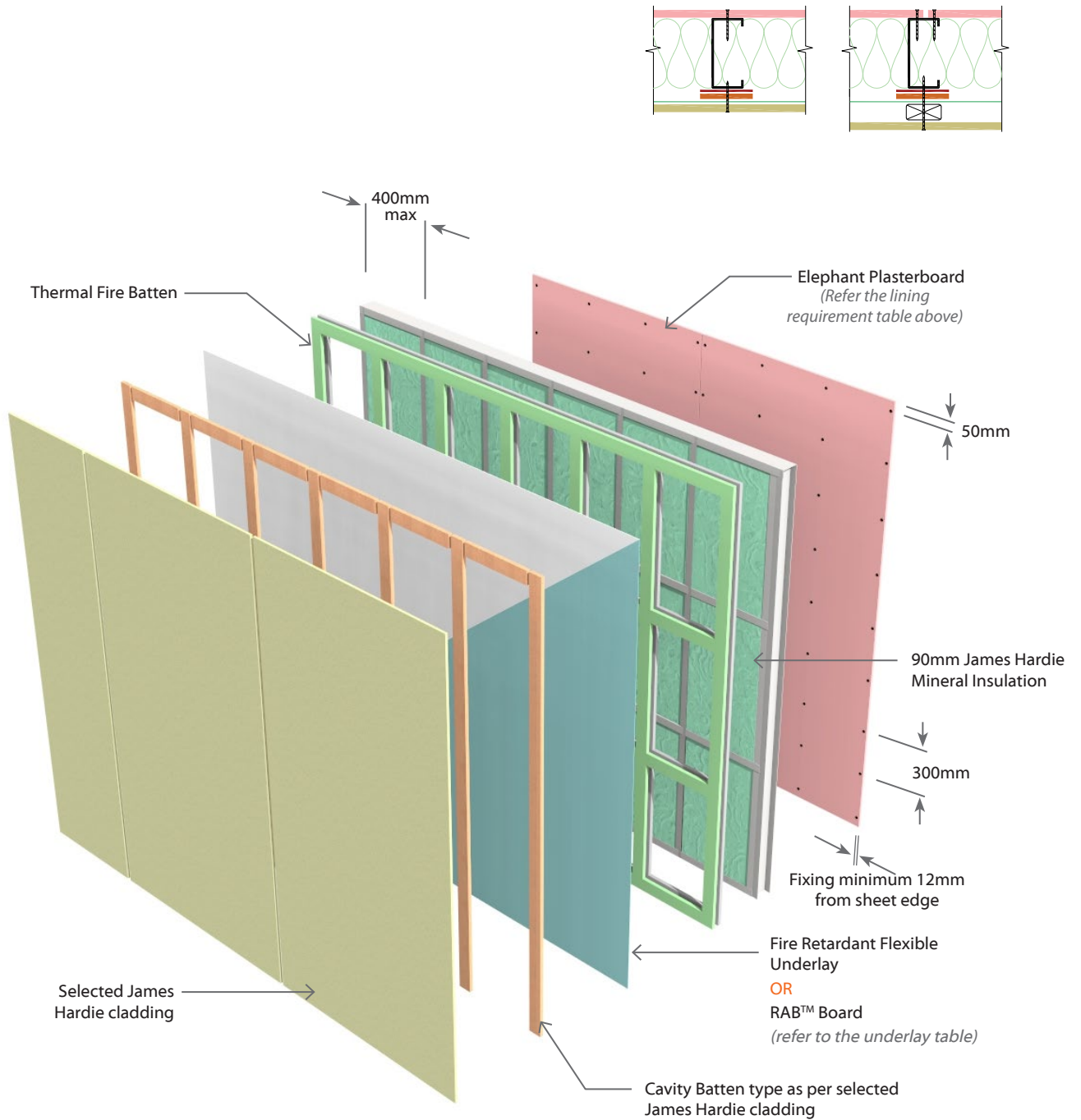
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N.B. The above drawings are for illustrative purposes only.

