

## EFJ2DFA60

## EPB &amp; Floating James Hardie Secura™ Interior Flooring

## Full Intertency Accoustic

## Direct Fix Clip Floating Floor/Ceiling - Timber Joist

## Load Bearing

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	IIC*	
EFJ2DFA60	-MS26	60/60/60	LB	67	57-76	1 x 13mm Elephant MultiSmart AND 1 x 13mm Elephant Standard under the battens
	-M26	60/60/60	LB	68	57-77	2 x 13mm Elephant MultiSmart 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/m<sup>3</sup>.

**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/m<sup>3</sup>.

**Elephant Plasterboard Ceiling Lining**

Two layers of Elephant 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 Elephant 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
EFJ2DFA60-MS26	13mm	13mm
EFJ2DFA60-M26	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 Elephant 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 Elephant 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.



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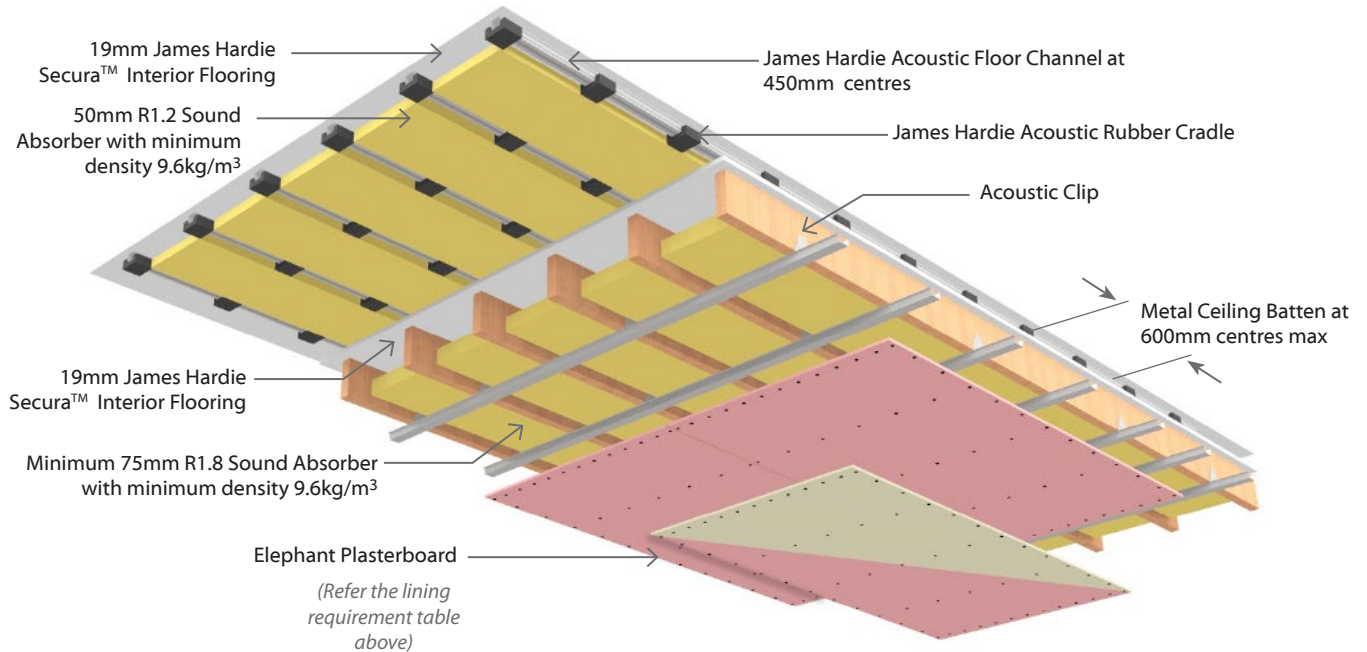
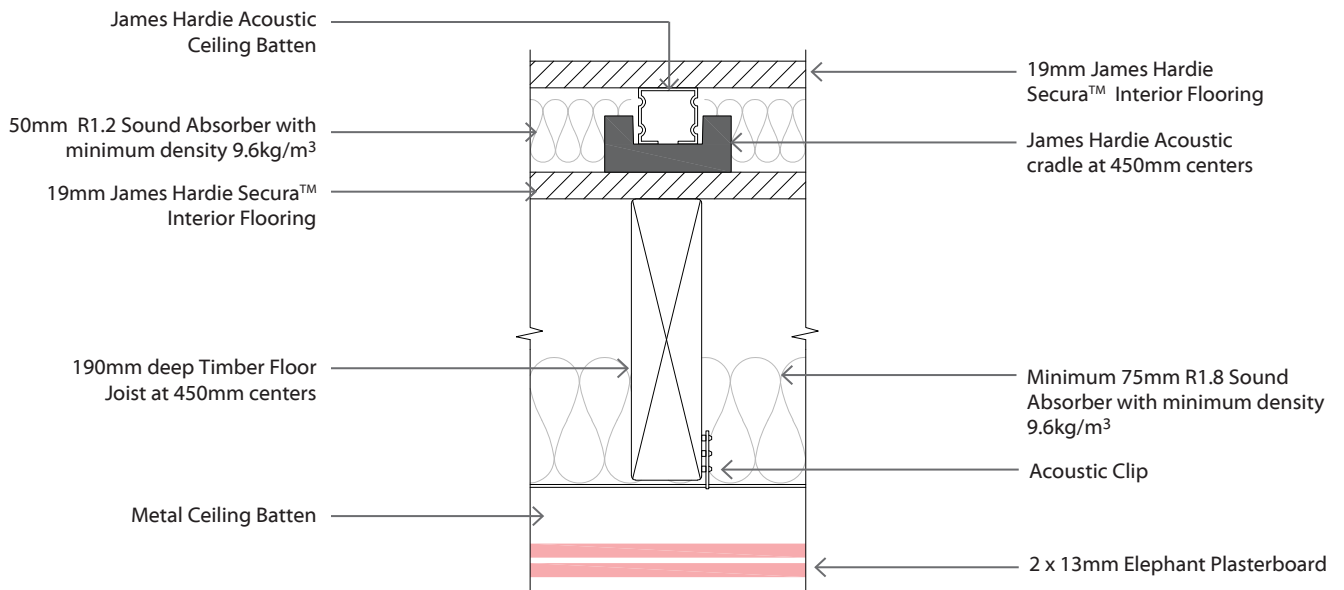
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**Structural Detail**



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

