

EJH2SL60

EPB & James Hardie F/C Sheets

Two Way FRR

External Wall - Steel Frame

Load Bearing

System Number	Lining Suffix	Fire Rating	Insulation	Noise Control STC	Lining Requirement
EJH2SL60	-M26	60/60/60	JH Mineral	51- 54	2 x 13mm Elephant MultiSmart on One side 6mm or > James Hardie F/C Sheets to Other 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 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

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.

James Hardie Fibre Cement Cladding

One layer of 6mm or > James Hardie Fibre Cement cladding to one side of the framing.

Note: RAB™ Board cannot be used as a weathertight cladding.

Refer to page 13 of this manual for allowable James Hardie claddings and their relevant technical literature.

Also refer to James Hardie Fire & Acoustic Design Manual.

Cavity Insulation

Wall cavity must be filled between studs and nogs with 90mm thick James Hardie Mineral Insulation.

Elephant Plasterboard Lining

Two layers 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 layers are fixed hard to the floor. Sheets shall be touch fitted.

Fixing of Elephant Plasterboard Internal Linings**Fasteners**

System Number	1 st Layer	2 nd Layer
	Self-Tapping Drywall Screws	
EJH2SL60-M26	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.

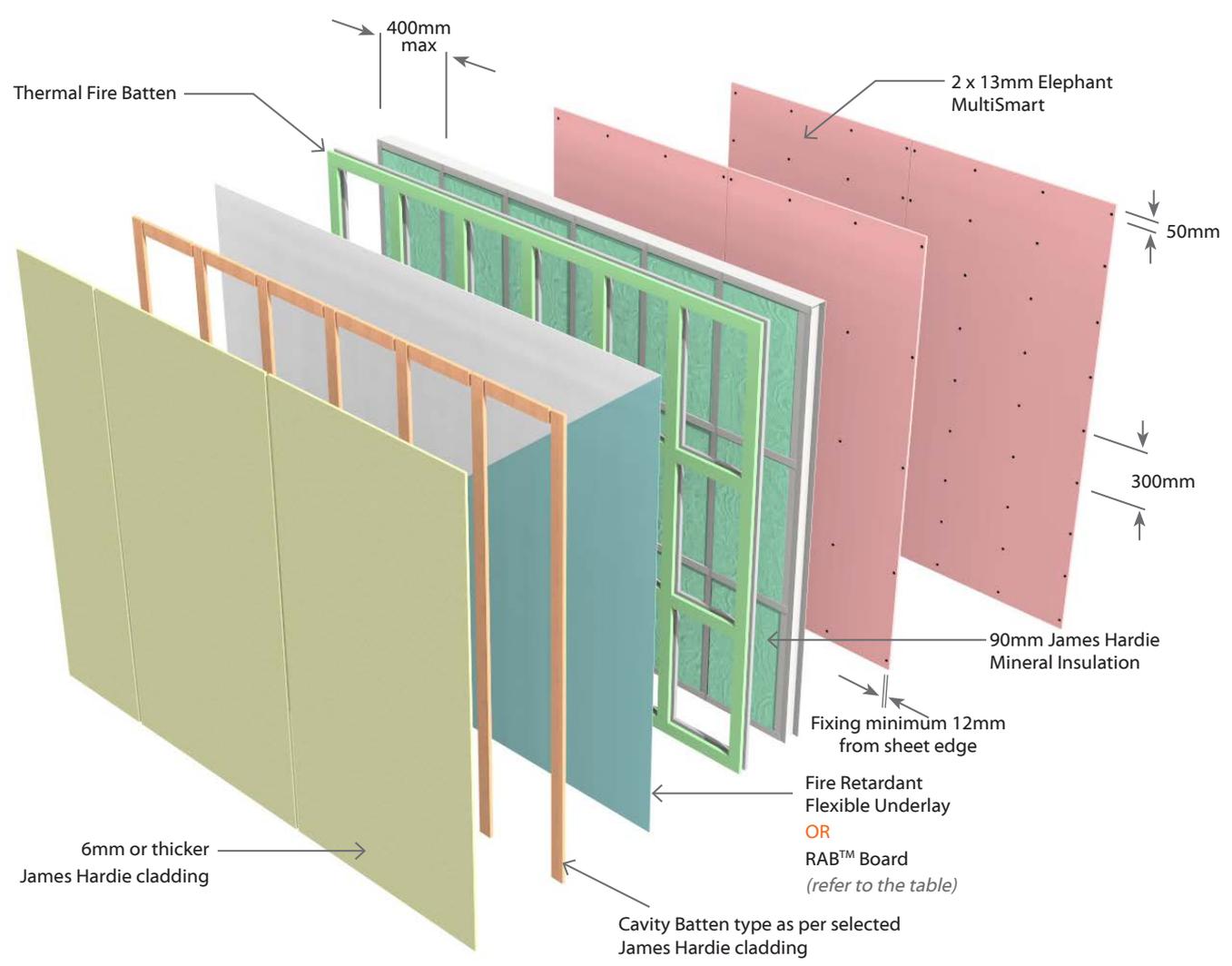
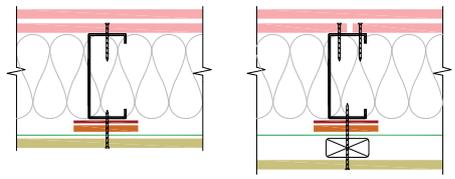
Avoid outer layer screws from hitting inner layer screws.

Jointing and Finishing of Elephant 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 Elephant Plasterboard Installation Guide.





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