

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

System Number	Lining Suffix	Fire Rating	Insulation	Noise Control STC	Lining Requirement
EJRN2SL30	-S20	30/30/30	JH Mineral	47	2 x 10mm Elephant Standard-Plus on One side James Hardie RAB™ Board with a Weathertight Cladding 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
- For load bearing walls a base metal thickness (BMT) of minimum 0.75mm to a maximum of 1.6mm is required.
- For non load bearing walls the base metal thickness (BMT) of minimum 0.55mm is required.
- BMTs greater than 1.6mm may adversely affect the stated STC
- 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
- For fire rated walls built close to a boundary it is 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.

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 Rigid Air Barrier 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.

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 layer is fixed hard to the floor. Sheet shall be touch fitted.

Fixing of Elephant Plasterboard Internal Linings**Fasteners**

System Number	1 st Layer	2 nd Layer
	Self-Tapping Drywall Screws	
EJRN2SL30-S20	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 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.



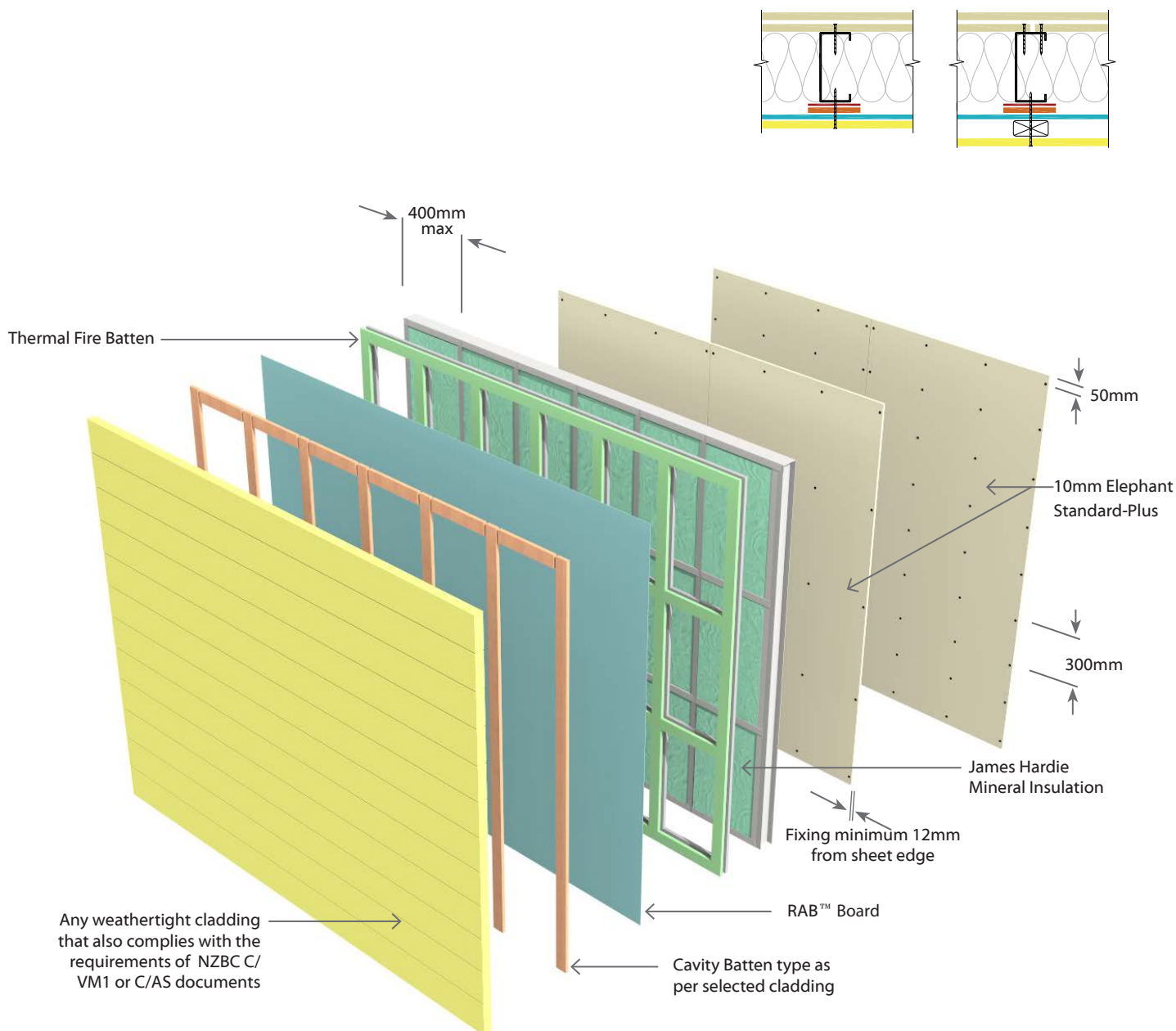
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N.B. The above drawings are for illustrative purposes only.

