

E4Sa105Single Steel Frame

Non Load Bearing

Two Way FRR

4 Layers: 2 Layers of Plasterboard to each side of frameSub Intertency acoustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	Rw	
E4Sa105	-M52	--/105/105	NLB	52	51	2 x 13mm Elephant MultiSmart on One side 2 x 13mm Elephant MultiSmart to Other side

Framing Non Load Bearing Systems

Steel studs with minimum dimensions 64mm x 34mm x 0.55 BMT with 6mm return. Channels to be minimum size 64mm x 30mm x 0.55 BMT and are fixed to floor and ceiling. Studs are placed with a 15mm expansion gap at top of frame. Channel runners are fixed to the floor and ceiling in true alignment. The studs are not directly fixed to channel. The studs are held in place by the grip of the channel runners. No other fixing is to be used. Studs are placed at 600mm centres maximum.

Wall Heights

Recommended maximum height is 3.0m. Higher walls may be subject to specific engineering design or consult the framing manufacturer.

Wall Sound Absorber

Install Sound Absorber between studs of the frame.
Use 75mm thick R1.8 glass wool blanket.

Plasterboard Lining

Two layers of 13mm Elephant MultiSmart to each side of the steel framing.

Vertical fixing only permitted. Use full height sheets where possible. Inner layer joints on opposite side of frame should be offset. All sheet joints must be fixed over steel framing. Vertical joints of the outer layer should be offset by 600mm to those of the inner layer. Sheet end butt joints must be formed over nogs and offset the outer layer joints from the inner layer. The inner layers are fixed hard to the floor. Sheets shall be touch fitted.

Fixing of Linings (Non Fire Rated)

Fix the linings as per the Elephant Installation Guide. If an FRR is required then follow the Fixing of Linings instruction in the following paragraph.

Fixing of Linings (to achieve Fire Rating)**Fasteners**

System Number	Side One		Side Two	
	1 st Layer	2 nd Layer	1 st Layer	2 nd Layer
E4Sa105-M52	Self-Tapping Drywall Screws			
	13mm	13mm	13mm	13mm
	25 x 6g	41 x 6g	25 x 6g	41 x 6g

Fastener Centres

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

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

Acoustic Sealant

A bead of acoustic sealant must be placed on the perimeter of the framing or the inner layer. The outer layer is then bedded onto the bead. The perimeter junctions of the wall must be airtight.

Jointing

Inner Layer: Unstopped.

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. Wall to ceiling junctions are to be reinforced with paper tape and square stopped or finished with Cornice. All in accordance with Elephant Plasterboard Installation Guide.

