

E4SMA90

Steel Frame with Resilient Mount

Non Load Bearing

Two Way FRR

4 Layers: 2 Layers of Plasterboard to Framing side & 2 Layers of Plasterboard on Mount side

Full Intertency **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	Rw	
E4SMA90	-M46	--/90/90	NLB	60	59	Frame Side: 1 x 13mm And 1 x 10mm Elephant MultiSmart Mount Side: 1 x 13mm And 1 x 10mm Elephant MultiSmart

Framing

Steel studs with minimum dimensions 64mm x 34mm x 0.55 BMT with 6mm return. Tracks to be minimum size 64mm x 30mm x 0.55 BMT and are fixed to floor and ceiling in true alignment. Studs are placed at 600mm centres maximum.

Studs are placed with a 15mm expansion gap at top of frame. The studs are not directly fixed to tracks. The studs are held in place by the grip of the channel runners.

No other fixing is to be used.

Wall Heights

Recommended maximum height is 2.7m. Higher walls may be subject to specific engineering design or consult the framing manufacturer.

Partition Width

In order to achieve the STC ratings in the table above the partition width (excluding the board) shall be a minimum of 104mm.

Stud Depth	Mount + Channel	Lining Suffix	Plaster-board	Total Partition
64mm	40mm	M46	46mm	150mm

Wall Sound Absorber

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

Acoustic Resilient Mount

The Resilient Mount shall be fixed to the studs at 600mm centres vertically and on every alternative stud using 32mm x 8g wafer head screws. When adjusting the clip for depth. 3mm rubber must remain between the underside of the steel spacer head and the furring channel. The Furring channels are clipped horizontally into the Mounts. Joints must be made as close as possible to the clips.

Plasterboard Lining

Framing Side: One layer of 13mm Elephant MultiSmart and One layer of 10mm Elephant MultiSmart linings fixed vertically. Vertical joints of outer layer should be offset by 600mm from those of the inner layer. All sheet joints must be fixed over steel framing.

Resilient Mount Side: One layer of 13mm Elephant MultiSmart and One layer of 10mm Elephant MultiSmart linings fixed vertically on the furring channel. Vertical joints of outer layer should be offset by 600mm from those of the inner layer.

Use full height sheets where possible. The inner layers are fixed hard to the floor. Sheet end butt joints must be formed over nogs or furring channels and offset the outer layer joints from the inner layer.

Sheets shall be touch fitted.

Fixing of Linings

Fasteners

System Number	Furring Channel Side		Framing Side	
	1 st Layer	2 nd Layer	1 st Layer	2 nd Layer
	Self-Tapping Drywall Screws			
E4SMA90-M46	13mm	10mm	13mm	10mm
	25 x 6g	41 x 6g	25 x 6g	41 x 6g

Fastener Centres

Framing Side: Fix at 300mm centres up each stud with no fixing to top or bottom channel sections.

Place fasteners no closer than 12mm to the sheet edge and 50mm from sheet ends.

Resilient Mount Side: Fix 300mm centres along each furring channel. Place fasteners minimum 12mm from sheet edges and 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 acoustical sealant is required around the perimeter of the inner layer and the outer layer is 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.

