

E3SQa45

Quiet Steel Frame

Non Load Bearing

Two Way FRR

3 Layers: 1 Layer of Plasterboard to one side of the frame &
2 Layers of Plasterboard to other side of the frame

Sub Intertency **acoustic**

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	Rw	
E3SQa45	-MS33	--/45/45	NLB	53	52	1 x 13mm Elephant MultiSmart on One side 2 x 10mm Elephant Standard-Plus to Other side

Framing

Quiet Steel Frame – Channels to be 92mm x 30mm x 0.55 BMT and are fixed to floor and ceiling. Quiet Steel studs 92mm x 45mm x 0.55 BMT are friction fitted and placed at 600mm centres with a 15mm expansion gap at top of frame.

No fixings to the top channel allowed.

Wall Heights

Recommended maximum height is 3.6m. 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 92mm.

Stud Size	Lining Suffix	Plasterboard	Total Partition
92mm	MS33	33mm	125mm

Wall Sound Absorber

Install Sound Absorber between studs of the frame.

Use 90mm thick R2.2 glass wool blanket.

Plasterboard Lining

One layer of 13mm Elephant MultiSmart lining fixed on one side and Two layers of 10mm Elephant Standard-Plus linings fixed on the other side of the quiet steel framing.

Vertical fixing only permitted. Vertical joints of the 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. All sheet joints must be fixed over steel framing. Sheet end butt joints must be formed over nogs and offset the outer layer joints from the inner layer. 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	Single Layer
E3SQa45-MS330	Self-Tapping Drywall Screws		
	10mm	10mm	13mm
	25 x 6g	32 x 6g	25 x 6g

Fastener Centres

Inner layer: Fix at 600mm centres up all studs.

Single or Outer Layer: Fix at 300mm centres up all studs.

Place fasteners 12mm from 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 is required around the perimeter of the steel framing and the single layer is bedded into the bead. The perimeter junctions of the wall must be airtight.

Jointing

Inner Layer: Unstopped

Outer or Single 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.

