

E4SQA90

Quiet Steel Frame

Non Load Bearing

Two Way FRR

4 Layers: 2 Layers of Plasterboard to each side of frame

Full Intertency **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	Rw	
E4SQA90	-M46	--/90/90	NLB	59	58	1 x 10mm And 1 x 13mm Elephant MultiSmart on One side 1 x 10mm And 1 x 13mm Elephant MultiSmart to Other side

Framing

Quiet Steel Frame – Tracks to be 92mm x 30mm x 0.55 BMT and are fixed to floor and ceiling. Quiet Steel studs 92mm x 42mm x 0.55 BMT are friction fitted and placed at max 600mm centres with a minimum 15mm expansion gap at top of frame.

No fixings to the top tracks 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 Depth	Lining Suffix	Plasterboard	Total Partition
92mm	M46	46mm	138mm

Wall Sound Absorber

Install Sound Absorber between studs of the frame. Use 90mm thick R2.2 glass wool blanket.

Plasterboard Lining

One layer of 10mm Elephant MultiSmart and One layer of 13mm Elephant MultiSmart linings fixed to each side of the Quiet steel framing.

Vertical fixing only permitted. Use full height sheets where possible. Inner layer joints on opposite side of frame are offset. All sheet joints must be fixed over steel framing. Vertical joints of the outer layer should be offset by 600mm from 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.

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.

Fixing of Linings

Fasteners

System Number	Side One		Side Two	
	1 st Layer	2 nd Layer	1 st Layer	2 nd Layer
	Self-Tapping Drywall Screws			
E4SQA90-M46	10mm	13mm	10mm	13mm
	25 x 6g	41 x 6g	25 x 6g	41 x 6g

Fastener Centres

Inner Layer: Fix at 300mm centres up all studs.

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

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

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.

