

E3SDA60 **Double Steel Frame** Non Load Bearing Two Way FRR

3 Layers: 1 Layer of Plasterboard on one side of frame & 2 Layers of Plasterboard on other side of frame Full Intertency **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control*		Lining Requirement
				STC	Rw	
E3SDA60	-MS39	--/60/60	NLB	57	56	1 x 13mm Elephant MultiSmart on One side 2 x 13mm Elephant Standard to Other side
	-M33	--/60/60	NLB	58	57	1 x 13mm Elephant MultiSmart on One side 2 x 10mm Elephant MultiSmart to Other side
	-M39	--/60/60	NLB	61	60	1 x 13mm Elephant MultiSmart on One side 2 x 13mm Elephant MultiSmart to Other side

*Acoustic Performance improves with increase of Partition Width. See 'Minimum Partition Width' Table below.

Framing

Double Frame - Steel studs to be of minimum dimension 64mm x 34mm x 0.55 BMT with a 6mm return.

Tracks to be minimum dimension 64mm x 30mm x 0.55 BMT.

Top & bottom tracks are fixed to the floor and ceiling in true alignment.

Studs are placed at 600mm centres maximum. Stud aligned.

Place studs to allow the nominated expansion gap (minimum 15mm) at the top of frame. The studs are not directly fixed to the tracks. The studs are held in place by the grip of the track runners.

Wall Heights

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

Minimum Partition Width

Space between Frames shall be a minimum of 25mm.

In order to achieve the STC ratings in the table above the partition width (excluding the board) shall be a minimum of 153mm. Increasing the partition width would increase STC performance as per the table below.

Stud Depth	Space Between Frames	Partition Width (Excludes Board)	STC Rating
64mm x 2	25mm Min	153mm	+0
64mm x 2	77mm Min	205mm	+2

Wall Sound Absorber

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

Plasterboard Lining

One layer of Elephant Plasterboard to One side of the double steel framing and Two layers to the Other Side as per specified system above.

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

Fasteners (As per Specified System Above)

System Number	Side One		Side Two
	1 st Layer	2 nd Layer	Single Layer
Self-Tapping Drywall Screws			
E3SDA60-MS39	13mm	13mm	13mm
E3SDA60-M39	25 x 6g	41 x 6g	25 x 6g
E3SDA60-M33	10mm	10mm	13mm
	25 x 6g	41 x 6g	25 x 6g

Fastener Centres

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

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

Place fasteners minimum 12mm from 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 framing or the inner layer. The single or outer layer is then bedded onto 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 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.

