E4CSDA60   **D**ouble **S**teel Frame - 13mm MultiSmart **C**entral Liner   Non Load Bearing | Two Way FRR

4 Layers: 2 Layers of Plasterboard to each side of frame   Full Intertenancy **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control*		Lining Requirement
				STC	**Rw**	
E4CSDA60	**-MS46**	-/60/60	NLB	56	56	1 x 13mm MultiSmart and 1 x 10mm Standard on One side 1 x 13mm MultiSmart and 1 x 10mm Standard to Other side
	-MS52	-/60/60	NLB	57	58	1 x 13mm MultiSmart and 1 x 13mm Standard on One side 1 x 13mm MultiSmart and 1 x 13mm Standard to Other side

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. Studs are friction fitted at 600mm centres maximum with a 15mm expansion gap at top of frame. No other fixings to the track allowed.

Wall Height

Recommended maximum height is 4.0m. For Wall heights over 3.4m allow a 20mm expansion tolerance at top of studs and use a 50mm deflection head channel at top of the wall.

13mm MultiSmart Central Liner

- Fix top and bottom channel runners to slab at 600mm centres and not more than 150mm from ends using steel fasteners. Install studs at 600mm centres.

- Install 13mm Elephant MultiSmart Central Liner vertically at 300mm to one side using 25mm x 6g Self Tapping Drywall screws. Fasteners to be placed at 12mm from sheet edges and 20mm clear of top and bottom channels. Sheet joins to be formed over framing.

- Second frame must be constructed against the Central Liner with channel runners fixed to top and bottom slabs and studs at 600mm centres. Offset this second frame by 300mm from the first frame.

- Fix the 13mm Elephant MultiSmart Central Liner to the second frame using 25mm x 6g Self tapping drywall screws at 300mm centres. Fasteners to be placed at 12mm from sheet edges and 20mm clear of top and bottom channels. Sheet joins to be formed over framing.

Wall Sound Absorber

Install Sound Absorber between studs on both sides of the double frame. Use 50mm thick R1.2 glass wool blanket.

Plasterboard Lining

Two layers of Elephant Plasterboard fixed on each side of the frame as per specified system lining requirements table above.

Inner layer sheets to be fixed vertically to each open side of the double frame.

Outer layer sheets can be fixed horizontally or vertically.

Use full height or full length sheets where possible. All sheet joints must be fixed over steel framing.

Vertical joints of outer layer must be offset by 600mm from those of the inner layer if fixed vertically. 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 (As per Specified System Above)

System Number	1ˢᵗ Layer	2ⁿᵈ Layer
	Self Tapping Drywall Screws	
E4CSDA60-MS46	13mm	10mm
	25 x 6g	41 x 6g
E4CSDA60-MS52	13mm	13mm
	25 x 6g	41 x 6g

Fastener Centres

Fix inner layer at 300mm centres on all studs and 20mm clear of top and bottom channels.

When fixing the outer layer vertically , the board should be offset from inner layer sheet joints.

Fix the outer layer at 300mm centres to all studs and 30mm clear of top and bottom channels.

In places where horizontal joint crosses, use pair of single fasteners.

Use Adhesive to replace screws in the field of sheet of outer layer sheets.

Screws at sheet edges must not be replaced with Adhesive. Adhesive to be used within 20mm of screw fixing.

Penetrations

Penetrations in cavities are permitted on either side of the Central liner for plumbing and electrical services.

Minimum 10mm clearance must be allowed between plumbing or electrical services and Central Liner for back-to-back services and penetrations.

Fire stopping for penetrations are not required for Metal and PVC Plumbing services up to 65mm diameter. 6mm max clearance gap around the plumbing services are required for penetrations through plasterboard linings. Gaps to be filled with flexible sealant.

Penetration of electrical services up to 90 x 50mm do not require

to be fire-stopped. Flush boxes are limited to two per 600mm wide stud bay.

For larger penetrations and penetrations through 13mm Elephant MultiSmart Central Liner, suitable proprietary fire-stopping is required. Penetrations through 13mm Elephant MultiSmart Central Liner may reduce the noise control performance of the system.

Plasterboard lining for Wet Area

If outer layer of 10mm Elephant Standard board is replaced with 10mm Elephant AquaSmart, the FRR and noise control ratings will be retained.

If outer layer of 13mm Elephant Standard board is replaced with 13mm Elephant AquaSmart, the FRR and noise control ratings will be retained.

Jointing

Central Liner: Unstopped

Inner Layer: Unstopped.

Outer 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.

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13mm MultiSmart Central Liner

Studs offset 300 from other frame

600mm max

10mm Elephant Standard OR 13mm Elephant Standard

13mm Elephant MultiSmart

10mm Elephant Standard OR 13mm Elephant Standard

300mm

13mm Elephant MultiSmart

Fasteners at 300mm perimeter studs. Adhesive at 300mm centres to field of sheet

50mm R1.2 glass wool insulation

Steel frame