

E3TDLA30

Double Timber Frame

Load Bearing

Two Way FRR

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

Full Intertency **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	Rw	
E3TDLA30	-F30	30/30/30	LB	55	54	1 x 10mm Elephant FireSmart on One side 2 x 10mm Elephant FireSmart to Other side
	-S39	30/30/30	LB	57	56	1 x 13mm Elephant Standard on One side 2 x 13mm Elephant Standard to Other side
	-M30	30/30/30	LB	58	57	1 x 10mm Elephant MultiSmart on One side 2 x 10mm Elephant MultiSmart to Other side

Framing

Framing to comply with relevant sections and clauses of NZBC B1: Structure and NZBC B2: Durability.

Studs at 600mm centres maximum.

Nogs at 1350mm centre maximum.

Wall Height, Load and Framing Dimension

These are determined by NZS3604 stud tables for load bearing or non-load bearing partitions. Minimum frame dimension is 90 x 45mm. Refer to Minimum Partition width below.

Minimum Partition Width

In order to achieve the STC ratings in the table above the partition width (excluding the board) shall be a minimum of 205mm. Increasing the partition width would increase STC performance as per the table below.

Stud Depth	Space Between Frames	Partition Width (Excludes Board)	STC Rating
90mm x 2	25mm Min	205mm	+0
90mm x 2	75mm Min	255mm	+2

Wall Sound Absorber

Install Sound Absorber between studs and nogs on one side of the double frame. Use 90mm thick R2.2 glass wool insulation.

Plasterboard Lining

One layer of Elephant Plasterboard lining on one side of frame and Two layers on the other side of framing as per specified system above. First layer or inner layer on each side of framing to be fixed vertically. Vertical or Horizontal fixing permitted on outer layer only. Use full height sheets where possible when fixing vertical. Inner layer joints on opposite side of frame should be offset. All sheet joints must be fixed over solid timber 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

Fasteners (As per Specified System Above)

System Number	Side One		Side Two
	1 st Layer	2 nd Layer	Single Layer
	High Thread Drywall Screws		
E3TDLA30-F30	10mm	10mm	10mm
E3TDLA30-M30	41 x 6g	51 x 7g	41 x 6g
E3TDLA30-S39	13mm	13mm	13mm
	41 x 6g	51 x 7g	41 x 6g

Fastener Centres

Inner Layer: Fix at 600 centres on vertical studs and 600mm centres horizontally on top and bottom plates.

Single or Outer Layer: Fix at 300mm centres at sheet perimeter and 300mm centres up each stud.

Place fasteners 50mm from sheet corners along the top and bottom plates. On end studs place additional fasteners 50-60mm vertically and no close than 10mm from plate to stud connections.

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 acoustic sealant is required around the perimeter of the framing or the inner layer. Then the single or outer layer is 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 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.

