

E2SCA90

Suspended Grid Floor/Ceiling

Load Bearing

2 Layers: 2 Layers of Plasterboard to underside of frame

Full Intertency **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control			Lining Requirement
				STC	Rw	IIC*	
E2SCA90	-FM29	90/90/90	LB	56	55	40-72	1 x 16mm Elephant FireSmart and 1 x 13mm Elephant MultiSmart
	-F32	90/90/90	LB	57	56	40-73	2 x 16mm Elephant FireSmart

Framing

Timber floor joists shall comply with NZS3604 with a minimum depth of 190 x 45mm and spaced at no more than 600mm centres. Alternatively, a proprietary I-joist system may be used subject to specific structural design and approved by the normal building consent process.

Flooring

Flooring shall be 20mm thick particle board of 17mm thick structural ply, fixed to the joists as per manufacturer's instructions. Flooring sheet joints must have a polypropylene tongue and groove jointer or be formed over framing.

Minimum Cavity Depth

The system requires a minimum of 275mm cavity depth between the ceiling linings and the underside of the flooring.

Suspension System

Rondo ScrewFix® steel frame suspension system comprising 2.5mm wire hangers at 1200mm centres supporting F38 strongback channels spaced at a maximum of 1200mm centres and F37 furring channels at 600mm centres.

Alternative suspension systems with equivalent performance characteristics and layout may be used.

Suspended Grid ceiling system to be installed as per manufacturer's specification.

Ceiling Sound Absorber

Install Sound Absorber over the suspension system. Use minimum 75mm thick R1.8 glass wool blanket.

N.B. Consider Minimum Thermal Requirements.

Plasterboard Lining

Two layers of Elephant Plasterboard as per specified system above, fixed at right angles to metal furring channels. Offset the joints of the outer layer by 600mm from those of the inner layer. All sheet butt joints should occur on the furring channel.

Sheet joints shall be touched fitted.

Fixing the Lining

Fasteners

System Number	1 st Layer	2 nd Layer
	Self-Tapping Drywall Screws	
E2SCA90-FM29	16mm	13mm
	32 x 6g	41 x 6g
E2SCA90-F32	16mm	16mm
	32 x 6g	41 x 6g

Fastening Centres

Ceiling sheets shall be fixed at 200mm centres along each furring channel and around the ceiling perimeter.

Fix at 100mm centres where end butt joints occur.

Fasteners to be placed no closer than 12mm from sheet edge.

Avoid outer layer screws from hitting inner layer screws.

Acoustic Sealant

A bead of Acoustic Sealant must be applied on the inner layer around the perimeter of the ceiling. The outer layer is then bedded into the bead.

Wall/Ceiling Junction

The internal angle between the ceilings and walls must be protected by Cornice or square stopped corners taped and filled in accordance with Elephant Plasterboard Installation Guide.

Jointing

Inner layer: Unstopped.

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped in accordance with the publication entitled Elephant Plasterboard Installation Guide.

***Impact Insulation Class (IIC)**

IIC of 40 is achieved with a bare floor.

IIC of 42 is achieved with loose laid Vinyl.

IIC of 72 is achieved with 40oz loop pile carpet on 8mm foam chip underlay.

IIC of 73 is achieved with 40oz loop pile carpet on waffle underlay.

