

FIRE RATED FLOOR/CEILING SYSTEMS – SECTION 3.1



Timber Frame

JANUARY 2006

SPECIFICATION NUMBER	LOADBEARING CAPACITY	FIRE RESISTANCE RATING	LINING REQUIREMENTS	STC	IIC	SYSTEM WEIGHT APPROX
GBFC 90	LB	90/90/90	2 layers 16mm GIB Fyreline®	41	34	63kg/m ²

FLOOR FRAMING

Floor Joists must comply with NZS 3604 and be a minimum of 200 x 50mm spaced at 400mm maximum. Solid strutting is required at 1800mm centres.

Nogs fixed on the flat to receive the ends of flooring material shall be 100 x 50mm minimum.

Nogs fixed on the flat to receive GIB® linings shall be 75 x 50mm minimum spaced at 600 centres.

Nogs/framing is required at the perimeter of the fire rated ceiling.

FLOORING

Minimum flooring shall be nominal 20mm thick particle board or minimum 17mm thick structural plywood fixed to the joists in accordance with the manufacturers' specifications.

Note: If tongue and groove sheet flooring is used, verification of performance must be obtained from the supplier of the flooring system.

CEILING LINING

2 layers of 16mm GIB Fyreline® shall be fixed at right angles to the underside of the floor joists.

The joints of the second layer are to be offset 600mm from those of the first layer.

All joints must occur on joists, solid strutting or nogs.

Sheets shall be touch fitted.

FASTENING THE LINING

Fasteners

INNER LAYER: 51mm x 7g GIB® Grabber® High Thread Drywall Screws.

OUTER LAYER: 76mm x 8g GIB® Grabber® Self Tapping Screws.

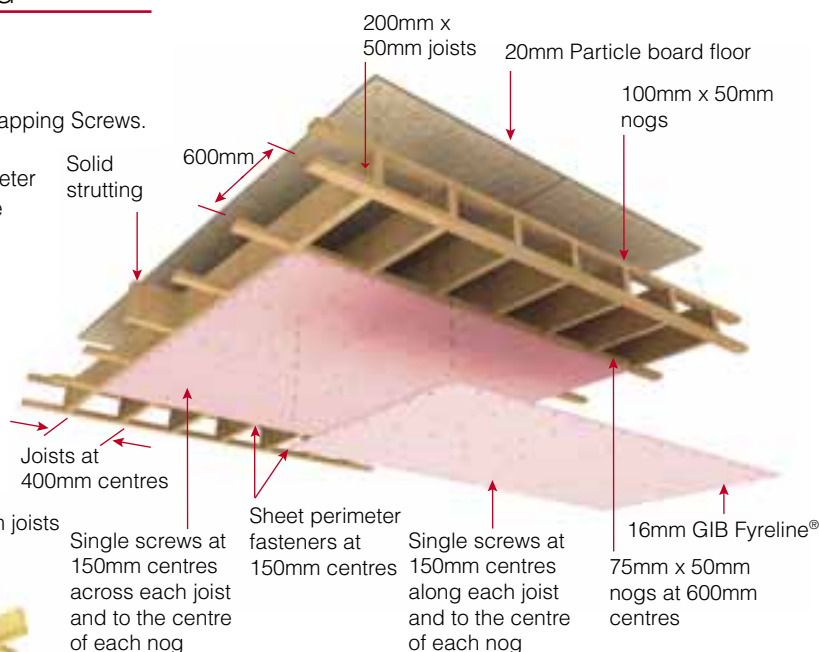
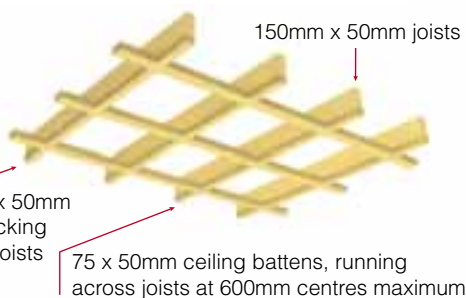
Fastener Centres

INNER LAYER: 150mm centres around the perimeter of each sheet and across each joist and at the centre of each nog.

OUTER LAYER: 150mm centres around the perimeter of each sheet and single screws at 200mm centres along each joist and at the centre of each nog.

Place fasteners 12mm from sheet edges.

Ceiling Batten Alternative



In order for GIB® systems to perform as tested, all components must be installed exactly as prescribed. Substituting components produces an entirely different system and may seriously compromise performance. Follow system specifications.