

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 45	LB	45/45/45	1 layer 13mm GIB Fyrelite®	39	32	44kg/m ²

FLOOR FRAMING

Floor Joists must comply with NZS 3604 and be a minimum of 200 x 50mm spaced at 600mm 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 600mm for joists at 600mm or at 1200mm for joists at 400 or 450mm.

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

1 layer of 13mm GIB Fyrelite® shall be fixed at right angles to the underside of the floor joists.

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

Sheets shall be touch fitted.

FASTENING THE LINING

Fasteners

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

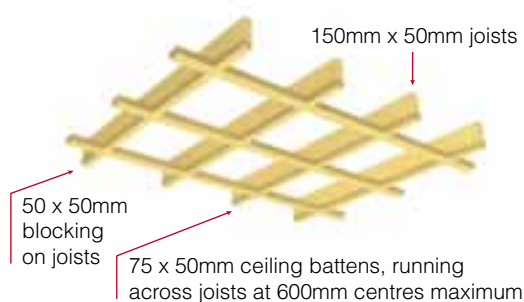
Fastener Centres

150mm centres around the perimeter of each sheet.

Single screws at 200mm centres along each joist and at the centre of each nog.

Place fasteners 12mm from sheet edges.

Ceiling Batten Alternative



Min 200mm x 50mm joists

20mm Particle board floor

100mm x 50mm nogs

Solid strutting

600mm

150mm x 50mm joists

75mm x 50mm nogs at 600mm centres

13mm GIB® Fyrelite

Perimeter fixing at 150mm centres

Single screws at 200mm centres along each joist and to the centre of each nog

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.