

Tiling



This section includes updated information, added since it was first published in July 2009. Please see the WHITE BOOK update document for details.
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Glenton Road, Lewisham,
London

Tiling

Tiles can be applied to drylined walls or to the surface of lightweight partition systems. Tiling can be carried out in any type of building, either in dry areas or in areas subject to intermittent moisture conditions. Typical applications include domestic and commercial toilets, bathrooms and kitchens, and domestic shower areas. Tiles up to 12.5mm thick with a maximum weight of 32kg/m² (including grout and adhesive) can be accommodated (20kg/m² for a plastered surface). The tiles are fixed using a suitable adhesive.



Key facts

- Suitable for domestic and commercial toilets, bathrooms and kitchens, and domestic shower areas
- Tile weights up to 32kg/m² for drylined walls
- Tile weights up to 20kg/m² for plastered walls
- Moisture resistant board option for wet use areas

Applications

Kitchens and bathrooms.

Sector





- ✓ Sport and leisure
- ✓ Education
- ✓ Healthcare
- ✓ Housing
- ✓ Apartment buildings
- ✓ High-rise multi-occupancy

System components

Board products		
Intermittent moisture conditions		
	Gyproc Moisture Resistant	Thickness 12.5, 15mm Width 1200mm
	Gyproc FireLine MR	Thickness 12.5, 15mm Width 1200mm
	Gyproc SoundBloc MR	Thickness 12.5, 15mm Width 1200mm
	Gyproc SoundBloc RAPID MR	Thickness 15mm Width 900mm
	Gyproc DuraLine MR	Thickness 15mm Width 1200mm
	Glasroc F MULTIBOARD	Thickness 6, 10, 12.5mm Width 1200mm
	Glasroc F FIRECASE	Thickness 15, 20, 25, 30mm Width 600, 1200mm
	Rigidur H	Thickness 12.5, 15mm Width 1200mm

NB In dry conditions any paper faced Gyproc board is a suitable substrate for tiling.

NB Tapered edge plasterboards are normally used where part-height tiling occurs. Square edge boards can be used to suit full height and width tiling.

Fixing and finishing products	
	Gyproc Drywall Sealer Plasterboard sealer, used in two coats to provide vapour control, or in one coat to protect the board from steam-stripping of wallcoverings.
	Waterproof sealant (by others) For sealing cut edges.
	Tiles (by others) Thickness Up to 12.5mm Weight 32kg/m ² (maximum including adhesive and grout)
	Tile adhesive (by others)



Design

Planning - key factors

Gyproc moisture resistant grade boards, Glasroc F MULTIBOARD or Rigidur H are recommended for intermittent moisture applications, including splashbacks. Alternatively, for splashbacks, boards can be coated with two coats of Gyproc Drywall Sealer to prepare for tiling. Cut edges of plasterboards must be appropriately sealed / caulked at abutments. The tolerance on the finished tile surface quoted in *BS 5385: Part 1*, i.e. 3mm under a 2m straightedge with thin-bed adhesives, is such that it will reflect very accurately the standard of the background surface. This is particularly important on timber framed backgrounds. Therefore, if the specification requires this tolerance, the same standards must be applied to the timber framework. Tolerance standards for drylining and partition systems are given in *BS 8212*.

Two coats of Gyproc Drywall Sealer applied to the face of standard grade plasterboards, with the edges adequately protected from moisture may also be suitable to receive a tile finish. The application of Gyproc Drywall Sealer provides surface water absorption resistance only, and does not meet the performance requirements for moisture resistant grade boards as defined in *BS EN 520, type H1*.

Detailing at junctions

Designers must give consideration to the precautions necessary at junctions to ensure that moisture is not allowed to penetrate or collect, e.g. at the base of walls where showers are specified with tiling to plasterboard, and at other junctions such as bath edges.

Perimeter sealing

Standard perimeter sealing methods around baths or shower trays are normally adequate. Caulking sealant can be used to form a fillet between the wall surface and the floor at the base of partition or wall lining to prevent any possible moisture being absorbed by the board core.

Continuity of linings

All partitions and wall linings should be complete. There should be no omissions to board linings, e.g. behind baths.

Timber stud external walls or partitions

Where tiling is specified, designers should ensure that the timber is of sufficient dimensions to give a stable base for the additional loading. The moisture resistance of the timber should be within the limits given in *BS 5268: Structural use of timber - Part 2*.

Movement joints

Reference should be made to Section 3, Clause 19 of *BS 5385: Part 1*.

Tiling directly onto plasterboard

Before tiling commences, any tapered edge joints included within the tiling area should be filled with tile adhesive. Other areas are finished as normal.

Tiling onto plastered surfaces

Tiles up to 20kg/m² (including adhesive and grout) can be applied directly to Thistle finish plasters, except where the system includes a bonding agent. In this situation the total weight of tiles and plaster applied over a bonding agent is limited to 20kg/m², therefore consideration should be given to tiling directly to the background. If plastering to provide a background for tiles, avoid polishing the surface. Polished plaster surfaces should be roughened and a suitable primer used. Consult the tile adhesive manufacturer for guidance. Tiles should not be applied directly to Thistle undercoats, with the exception of Thistle Dri-Coat.

Gypsum undercoats and finish coats are designed to work together to achieve full strength and therefore tiles should not be applied directly to Thistle undercoats, with the exception of Thistle Dri-Coat.

Tiles should not be applied until the background and plaster are dry. Note that Thistle Hardwall and Thistle Tough Coat dry from the surface, appearing surface dry before they are fully dry throughout.

Performance

Table 1 - Tiling on partition systems

System	Board type (including MR variants)	Thickness each side mm
GypWall RAPID	SoundBloc RAPID	15
GypWall ROBUST / EXTREME	DuraLine, Rigidur H	15
GypWall CLASSIC, GypWall QUIET / QUIET IWL		
48mm, 60mm, 70mm, and 92mm stud	Any single layer 15mm board, any double layer specification	15
		2 x 12.5
		2 x 15
146mm stud	Any single layer 15mm board, any double layer specification	15
		2 x 12.5
		2 x 15
19 + 12.5		15
		2 x 12.5
		2 x 15
Timber stud partitions and separating walls	Any board specification	12.5 or 15
GypWall STAGGERED	SoundBloc	15
		2 x 12.5
		2 x 15
GypWall QUIET SF	Plank, SoundBloc Tiles over lining boards fixed to Gypframe RB1 Resilient Bars	2 x 12.5
		2 x 15
		19 + 12.5
	Tiles over lining boards fixed to metal studs	2 x 12.5
		2 x 15
		19 + 12.5
GypWall SECURE	Glasroc F MULTIBOARD	2 x 10
ShaftWall	FireLine	1 x 15
		2 x 15
		2 x 12.5
GypWall AUDIO	Plank, SoundBloc, FireLine	2 x 12.5
		2 x 15
		19 + 12.5
FireWall	Glasroc F MULTIBOARD, Glasroc F FIRECASE	2 x 15
		2 x 15 + 6

NB The recommendations given are based on experience and laboratory / site testing. In practice, performance will be dependent on factors such as workmanship and site conditions.

Stud centres mm	Additional support
450, or 900 with mid-height nogging	N/A
400	N/A
400	N/A
600	Extra stud to give 300mm centres at tiling height
400, or 600 with noggings	Timber noggings 50mm x 38mm minimum at 600mm centres vertically
400 400 400	N/A
600mm centres, Gypframe RB1 Resilient Bars at 400mm centres	N/A
400mm centres	N/A
600	Studs at 300mm centres (or Gypframe 99 FC 50 Fixing Channel at 1200mm centres) for single layer lining specifications. The two layers of 12.5mm or 15mm plasterboard are bonded with a continuous bead of Gyproc Sealant midway between studs.
400 400 400	N/A
400 400	N/A

Table 2 - Tiling on drylined walls and independent wall lining

System	Board type (including MR variants) mm	Thickness mm	Support centres
Drilyner BASIC Dabs of Gyproc Dri-Wall Adhesive in rows	WallBoard, SoundBloc, Moisture Resistant	9.5	400 / 450
		12.5, 15	600
Drilyner π Dabs of Gyproc Dri-Wall Adhesive in rows	ThermaLine laminates	All	600
Drilyner si Priming and dabs of Gyproc Dri-Wall Adhesive	TriLine	All	450
Drilyner MF	WallBoard, WallBoard DUPLEX, FireLine, FireLine DUPLEX, Moisture Resistant, DuraLine, SoundBloc	12.5, 15	400
		ThermaLine laminates	-
Drilyner RF Blobs of Gyproc Sealant at nominal 300mm centres	ThermaLine laminates	All	-
		TriLine	-
Timber battens	WallBoard, WallBoard DUPLEX, FireLine, FireLine DUPLEX, Moisture Resistant, DuraLine, SoundBloc	12.5, 15	400
		ThermaLine laminates	-
Gyplyner wL	WallBoard, WallBoard DUPLEX, FireLine, FireLine DUPLEX, Moisture Resistant, SoundBloc	2 x 12.5	400
		15	
Gyplyner UNIVERSAL	WallBoard, Moisture Resistant, DuraLine, SoundBloc	12.5, 15	400

NB The recommendations given are based on experience and laboratory / site testing. In practice, performance will be dependent on factors such as workmanship and site conditions.

Additional support centres	Additional fixings and centres	Comment
Horizontal dabs of Gyproc Dri-Wall adhesive at mid-storey height	N/A	Wall lining left to stand for seven days before tiling begins
Horizontal dabs of Gyproc Dri-Wall adhesive at mid-storey height	Nine Gyproc Nailable Plugs through each board in the area to be tiled	Wall lining left to stand for seven days before tiling begins
Horizontal dabs of Gyproc Dri-Wall adhesive at mid-storey height	Nine Gyproc Nailable Plugs through each board in the area to be tiled	Wall lining left to stand for seven days before tiling begins
N/A	Gyproc Drywall Screws at 300mm centres into each support	Wall lining left to stand for seven days before tiling begins
N/A	Gyproc Drywall Screws at 300mm centres into each support	Wall lining left to stand for seven days before tiling begins
N/A	Nine Gyproc Nailable Plugs through each board in the area to be tiled	Wall lining left to stand for seven days before tiling begins
N/A	Gyproc Nailable Plugs at 600mm centres vertically, 15mm in from each edge	Wall lining left to stand for seven days before tiling begins
Horizontal battens at head, base, and intermediate positions not exceeding 1200mm centres	N/A	N/A
Horizontal battens at head, base, and intermediate positions not exceeding 1200mm centres	N/A	N/A
Mid-height support from framework to structure	N/A	N/A
Fixing brackets at 600mm centres	N/A	N/A