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**14 April 2006**      Page 417 – Additional copy added to introduction text.

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For quality and security reasons, calls may be recorded.

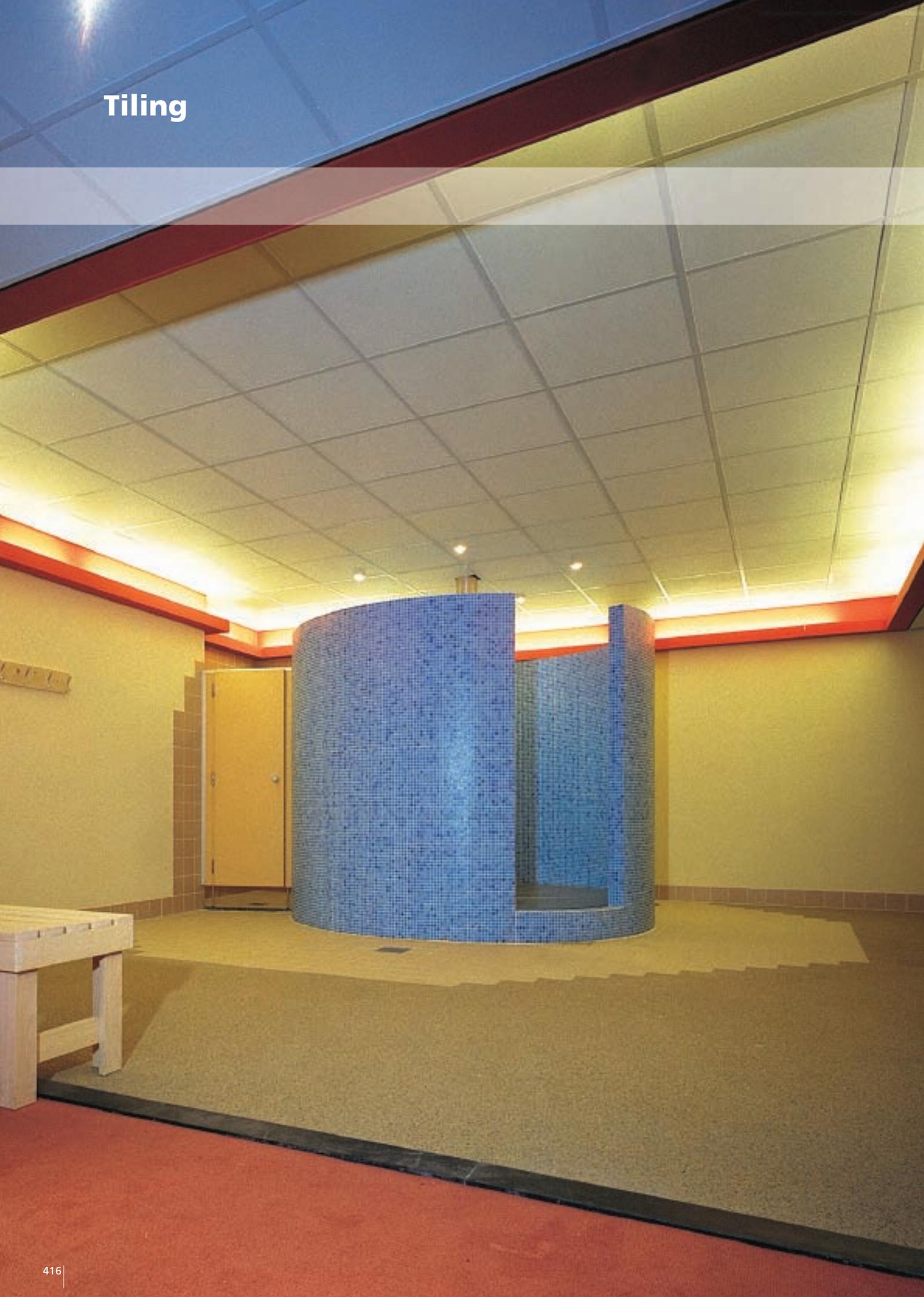
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**Training enquiries: 08702 406040**

Tiling-01.pdf © British Gypsum

# THE WHITE BOOK 2005

# Tiling



# Tiling

Tiles can be applied to drylined walls or the surface of lightweight partition systems to dado level or above. 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 shower areas, toilets, bathrooms and kitchens. Tiles up to 12.5mm thick with a maximum weight of 32kg/m<sup>2</sup> can be accommodated (20kg/m<sup>2</sup> for a plastered surface). The tiles are fixed using a suitable thin-bed adhesive applied to a nominal 3mm thickness. The use of Gyproc moisture resistant grade boards is 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.



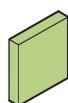
## Key facts

- Suitable for showers, toilets, bathrooms and kitchens
- Tile weights up to 32kg/m<sup>2</sup> for drylined walls
- Tile weights up to 20kg/m<sup>2</sup> for plastered walls
- Moisture resistant board option for wet use areas
- Recommendations available for all British Gypsum systems

## System components

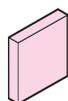
### Gyproc and Glasroc board products

#### Intermittent moisture conditions



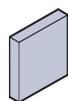
#### Gyproc Moisture Resistant

Thickness 12.5, 15mm  
Width 1200mm



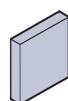
#### Gyproc FireLine MR

Thickness 12.5, 15mm  
Width 1200mm



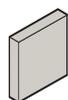
#### Gyproc SoundBloc MR

Thickness 12.5, 15mm  
Width 1200mm



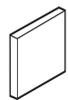
#### Gyproc SoundBloc RAPID MR

Thickness 15mm  
Width 900mm



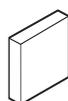
#### Gyproc DuraLine MR

Thickness 13, 15mm  
Width 1200mm



#### Glasroc MultiBoard

Thickness 6, 10, 12.5mm  
Width 1200mm



#### Glasroc FireCase s

Thickness 15, 20, 25, 30mm  
Width 600, 1200mm

### Gyproc board products

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

For decoration preparation



#### Waterproof sealant (by others)

For sealing cut edges.



#### Tiles

Thickness Up to 12.5mm  
Weight 32kg/m<sup>2</sup> (max)



#### Tile adhesive (by others)

Suitable thin-bed adhesive.

## Design

### Planning - key factors

The tolerance on the finished tile surface quoted in *BS 5385: Part 1: 1995*, i.e. 3mm under a 2m straight-edge 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: 1995 Code of Practice for Drylining and Partitioning using gypsum plasterboard*, and *BS 8000: Part 8: 1994*.

### 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: 1991 Code of practice for permissible stress design, materials and workmanship*.

### Movement joints

Reference should be made to Section 3, Clause 19 of *BS 5385: Part 1: 1995*.

### 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/m<sup>2</sup> can be applied directly to the Thistle finish coats, 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/m<sup>2</sup>, 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.

Tiles should not be applied until the background and plaster are dry. Take care with Thistle Hardwall and Thistle Tough Coat which dry from the surface, appearing surface dry before they are fully dry in depth.

## Performance

**Table 1 - Tiling on partition systems**

System	Board type (including MR variants)	Thickness each side mm
GypWall <b>RAPID</b>	SoundBloc <b>RAPID</b>	15
GypWall <b>ROBUST</b>	DuraLine	13 15
<b>GypWall CLASSIC, GypWall QUIET / QUIET IWL</b>		
48mm or 70mm stud	13mm DuraLine, any 15mm board, any double layer specification	15 2 x 12.5 2 x 15 19 + 12.5
146mm stud	13mm DuraLine, any 15mm board, any double layer specification	15 2 x 12.5 2 x 15 19 + 12.5
Timber stud partitions and separating walls	Any board specification	12.5 or 15
GypWall <b>STAGGERED</b>	SoundBloc	12.5, 2 x 15 15 2 x 15
GypWall <b>QUIET SF</b>	Plank, SoundBloc <b>Tiles over lining boards fixed to Gypframe RB1 Resilient Bars</b>	2 x 12.5 2 x 15 19 + 15
	<b>Tiles over lining boards fixed to metal studs</b>	2 x 12.5 2 x 15 19 + 15
GypWall <b>SECURE</b>	MultiBoard	2 x 10
ShaftWall <sup>2</sup>	FireLine	1 x 15  2 x 15 2 x 12.5
GypWall <b>AUDIO</b>	Plank, SoundBloc, FireLine	2 x 12.5 2 x 15 19 + 12.5
FireWall	MultiBoard, FireCase s	2 x 15 2 x 15 + 6

<sup>1</sup> An intermediate stud should be fixed midway between the main studs, i.e. to achieve support at 300mm centres. It should be fitted into the floor channel in the normal way.

<sup>2</sup> To be within L/360 deflection limits.

**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. Guidance, therefore, is given without warranty.

Support centres mm	Additional support centres
450, or 900 with mid-height nogging	
400	
400	
600	Extra stud to give 300mm centres at tiling height <sup>1</sup>
400, or 600 with noggings	Timber noggings 50mm x 38mm minimum at 600mm centres vertically.
400	
400	
400	
Studs at maximum 600mm centres, Gypframe RB1 Resilient Bars at 400mm centres	
Studs at 400mm centres	
600	
To non-shaft side only	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 or 15mm board are bonded with a continuous bead of Gyproc Sealant midway between studs.
400	
400	
400	
400	
400	

Table 2 - Tiling on drylined walls and independent wall lining

System	Board type (including variants)	Thickness mm	Support centres mm
<b>DriLyner BASIC</b>  Dabs of Gyproc Dri-Wall Adhesive in rows	WallBoard	9.5 12.5, 15	400 / 450 600
<b>DriLyner TL</b> Dabs of Gyproc Dri-Wall Adhesive in rows	ThermaLine laminates	All	600
<b>DriLyner SI</b> Priming and dabs of Gyproc Dri-Wall Adhesive	TriLine	All	450
<b>DriLyner MF</b>	WallBoard, WallBoard DUPLEX, FireLine, FireLine DUPLEX, Moisture Resistant, DuraLine	12.5, 15	400
	ThermaLine laminates	All	
<b>DriLyner RF</b> Blobs of Gyproc Sealant at nominal 300mm centres	ThermaLine laminates	All	
	TriLine	All	
Timber battens	WallBoard, WallBoard DUPLEX, FireLine, FireLine DUPLEX, Moisture Resistant, DuraLine	12.5, 15	400
	ThermaLine laminates	All	
<b>GypLyner IWL</b>	WallBoard, WallBoard DUPLEX, FireLine, FireLine DUPLEX, ThermaLine laminates, Moisture Resistant	2 x 12.5 15	400
<b>GypLyner UNIVERSAL</b>	WallBoard, Moisture Resistant, DuraLine, SoundBloc, ThermaLine laminates	12.5, 15	400

<sup>†</sup> Additional Gyproc Nailable Plugs in the area to be tiled, at 9 per board.

**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. Guidance, therefore, is given without warranty.

Additional support centres	Fixings and centres	Comment
Horizontal dabs of Gyproc Dri-Wall adhesive at mid-storey height		Wall lining left to stand for 7 days before tiling begins.
Horizontal dabs of Gyproc Dri-Wall adhesive at mid-storey height	Gyproc Nailable Plugs through each board <sup>1</sup>	Wall lining left to stand for 7 days before tiling begins.
Horizontal dabs of Gyproc Dri-Wall adhesive at mid-storey height	Gyproc Nailable Plugs through each board <sup>1</sup>	Wall lining left to stand for 7 days before tiling begins.
	Gyproc Drywall Screws at 300mm centres into each support	Wall lining left to stand for 7 days before tiling begins.
	Gyproc Drywall Screws at 300mm centres into each support	Wall lining left to stand for 7 days before tiling begins.
	9 Gyproc Nailable Plugs per board	Wall lining left to stand for 7 days before tiling begins.
	Gyproc Nailable Plugs at 600mm centres vertically, 15mm in from each edge	Wall lining left to stand for 7 days before tiling begins.
Horizontal battens at head, base, and intermediate positions not exceeding 1200mm centres	Gyproc Nails at 150mm centres to all supports or Gyproc Drywall Timber Screws at 300mm centres	50mm wide battens
Mid-height support from framework to structure	Gyproc Drywall Screws at 300mm centres	
Fixing brackets at 600mm centres	Gyproc Drywall Screws at 300mm centres	