

## Gyproc Moisture Resistant

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### DESCRIPTION

Gyproc Moisture Resistant board has a gypsum core protected by a water repellent additive and is lined on both sides with water repellent paper liners. Gyproc Moisture Resistant has been developed as a general purpose board for use where exposure to external conditions exists during the construction process, or where it is used externally in a protected situation.

Gyproc Moisture Resistant is suitable to be used as a permeable sheathing or lining board in walls and roofs of timber or steel framed buildings, imparting a degree of stiffness to the wall frame or roof truss assembly and contributing to fire protection and general integrity. It may be used behind external finishes such as vertical tiling, slating, weather boarding or featured siding, providing bracing strength with moisture and draught resistance. The boards may be further used as a visible lining to porches, canopies, carports and eaves soffits externally, where the construction protects the board from direct contact with rain. Gyproc Moisture Resistant is also suitable for use in areas where ceramic tiling is required to a plasterboard surface.

### Standards

Gyproc Moisture Resistant complies with:  
*BS 1230: Part 1: 1985 Specification for plasterboard excluding materials submitted to secondary operations*, and is accordingly classified as Types 3 and 4 under this standard.

All British Gypsum boards and plasters are manufactured under *BS EN ISO 9002*, a quality assurance system approved by the BSI.

Safety Data Sheets are available for all British Gypsum products. Please contact the British Gypsum Drywall Academy Advice Centre for guidance.

### PERFORMANCE

#### Fire protection

Plasterboard linings provide good fire protection owing to the unique behaviour of the non-combustible gypsum core when subjected to high temperatures.

For the purposes of the national Building Regulations 1991, plasterboard is designated a 'material of limited combustibility' (Approved Document B).

Gyproc Moisture Resistant satisfies Class 0 surface requirements for the purposes of national Building Regulations. Please refer to **Table 1**.

**Table 1 - Reaction to fire test performance**

Test	Performance
<i>BS 476: Part 6: 1989 Method for fire propagation for products.</i>	Index of performance (I) not exceeding 12 and a sub-index (i <sub>r</sub> ) not exceeding 6.
<i>BS 476: Part 7: 1997 Surface spread of flame tests for materials.</i>	Class 1.

#### Fire resistance

Gyproc Moisture Resistant board offers the same level of fire resistance performance as Gyproc WallBoard. Please refer to the appropriate White Book Application section, or the relevant product or systems section, for information on the fire resistance of building elements lined with Gyproc WallBoard.

### EFFECT OF TEMPERATURE, THERMAL PROPERTIES, AND SOUND INSULATION

#### Effect of temperature

Gyproc Moisture Resistant must not be used to isolate dampness. Plasterboards are not suitable for use in temperatures above 49°C, but can be subjected to freezing conditions without risk of damage.

#### Thermal conductivity / resistance

Conductivity ( $\lambda$ ) = 0.24 w/mk.

Resistance (R)    12.5mm (board thickness) = 0.07m<sup>2</sup>K/W.  
                          15mm (board thickness) = 0.06m<sup>2</sup>K/W.

#### Sound insulation

When Gyproc Moisture Resistant is substituted for the same thickness of Gyproc WallBoard, the sound insulation performance is unchanged.

## HEALTH AND SAFETY

Please refer to White Book Section 14 - Health and Safety before specifying, handling or installing any British Gypsum products and systems covered in this publication.

British Gypsum fully accepts its responsibilities as a supplier of building materials and systems as required by Section 6 of the Health and Safety Work Act: 1974. The designer should take full account of relevant regulations and guidance.

Please refer to Section 14 - Health and Safety, for further details.

Safety Data Sheets for all British Gypsum products, and additional copies of Section 14 - Health and Safety are available to download from our website:

[www.british-gypsum.bpb.com](http://www.british-gypsum.bpb.com), or via the British Gypsum Drywall Academy Advice Centre.

When cutting boards, power and hand tools should be used with care and in accordance with manufacturers' recommendations. Appropriate personal protective equipment should be used.

## ENVIRONMENTAL

### Moisture resistance

Gyproc Moisture Resistant has inherent protection against moisture, due to the treated liners and the gypsum core incorporating a water repellent additive.

### Water absorption

When tested in accordance with *BS 1230: Part 1: 1985*, Gyproc Moisture Resistant boards absorb less than 5% of water by weight in the total immersion tests and less than 160g/m<sup>2</sup> of water in the surface water absorption tests.

### Water vapour resistance

Water vapour resistance is less than 1MN/g when tested according to *BS 3177: 1959*. If there is a requirement for water vapour resistance when the board is used as an internal lining, the application of two coats of Gyproc Drywall Sealer will significantly increase the vapour resistance of the lining after installation and jointing.

## DESIGN CONSIDERATIONS

Gyproc Moisture Resistant is available in a range of sizes and thicknesses (please refer to Table 3) with square or tapered edges, the long edges are bound by the paper liner and the short edges are cut. The board has a green paper face with the product identification on the back of the board.

**Table 3 - Gyproc Moisture Resistant board range**

Thickness mm	Width mm	Length mm	Weight kg/m <sup>2</sup>
12.5	1200	2400	9.0
		2700	
		3000	
15.0	1200	2400	11.0

### Design considerations - Walls

In conditions where moisture may penetrate into the cavity, a waterproof breather paper to *BS 416: 1972 Specification for building papers (breather type)*, should be used.

Where the timber or steel frame is clad with 105mm brickwork, cavity wall ties should be fixed through the board to the frame. Timber battens for vertical tiling, slating or other treatments should also be fixed through the board to the timber frame.

### Design considerations - Roofs

Underslating felt should be tacked through the board to the trusses or rafters. As the board supports the felt, a lighter grade may need to be specified.

### Design considerations - Ceramic tiling

The recommendations of *BS 5385: Part 1: 1976* should be followed particularly where intermittently damp conditions may prevail after tiling e.g. in shower areas. Tiles specified for use on Gyproc Moisture Resistant should not exceed 12.5mm in thickness. The boards should be used as a backing for ceramic tiling in British Gypsum's wall lining and partition system.

## INSTALLATION

### General

It is important to observe appropriate Health and Safety legislation when working on site, i.e. protective clothing and equipment, etc. The following notes are intended as general guidance only, depicting the basic sequence of installation. In practice, consideration must be given to design criteria requiring specific project solutions.

### Handling and Storage

For correct Handling and Storage methods, please refer to **White Book Section 14 - Health and Safety**.

### Cutting

Gyproc Moisture Resistant may be cut using a saw or by snapping over a straight edge. Holes for switch or socket boxes should be cut out before the boards are fixed using a saw or sharp knife.

### Installation

When using Gyproc Moisture Resistant board in roofing, fixers must work from another support system as the boards will not support the body weight between rafters.

For guidance, please refer to **White Book Sections:-**

Fixing plasterboard to timber framing:-  
**Section a60 - Timber stud partitions and separating / compartment walls**, **Section b60 - Timber frame external walls** and **Section c60 - Timber joist ceilings and separating / compartment floors**.

For jointing, finishing and decorative effects, please refer to **White Book Section 9 - Board finishing** for guidance.

## FINISHING AND DECORATION

### Finishing

Gyproc Moisture Resistant board is suitable for finishing with Gyproc jointing materials in the normal way. A plaster finish should not normally be specified since the board is designed for use in moist environments in which gypsum plasters may not be suitable. If the board is used in temporarily moist conditions (i.e. shell and core construction) then a plaster finish may be used when the board is protected and has dried. Plaster finishes require the use of ThistleBond-It.

The installation and finishing should be carried out in accordance with the recommendations of British Gypsum, as described in their current literature and with the products supplied.

### Decorating

The surface of Gyproc Moisture Resistant is suitable for decoration with most types of paint. The manufacturers of the paint or other finishing materials should be consulted regarding their recommendations for use of their products on Gyproc Moisture Resistant .

After the finishing treatment has dried, decoration including any decorator's preparatory work, should follow with the minimum of delay. Please refer to **White Book Section n30 - Decorative effects**, for guidance.

## OPERATION, MAINTENANCE

If a board is damaged, it should be repaired or replaced as described in **White Book Section 9 - Board finishing**. Please note that to maintain fire performance, the edges of the repair patch should be fixed in a manner equivalent to the original specification. Where this is impractical, it is strongly recommended that the board be completely replaced.

## British Gypsum

The UK market leader in gypsum plaster and plasterboard systems, British Gypsum markets its products under the Gyproframe, Gyproc, Glasroc, Thistle, Artec, Rawl and Isowool brand\* names.

A *BS EN ISO 9002* Quality Assured Company, British Gypsum maintains the quality and leading edge performance of its products and systems through an extensive and on-going programme of research, development and testing, supported by in-house fire, acoustic and system test facilities which are unique amongst building product manufacturers and match the best available anywhere in the UK.

British Gypsum quality does not stop at the products themselves. CAD and technical support for specifiers, comprehensive on-site support and off-site training through three dedicated Drywall Academy centres at East Leake near Nottingham, Kirkby Thore in Cumbria, and Erith in Kent, and ex-stock or next day availability through around 4000 builders' merchants nationwide are just a part of a customer support package that has, for many years, set British Gypsum apart in the market place.

British Gypsum further benefits from being a member of Europe's leading gypsum company, BPB plc, which has interests in a wide range of associated building products and provides an extensive pool of knowledge and experience to the benefit of all its member companies.

Gyproframe, Gyproc, Glasroc, Thistle, Artec and Rawl are all registered trade names of BPB United Kingdom Limited. Isowool is a registered trade name of British Gypsum-Isover Ltd, a joint venture between the insulation division of British Gypsum and Isover Saint-Gobain.

British Gypsum reserves the right to revise product specification without notice. The information given is correct to the best of our knowledge at the time of publication, but it is the users responsibility to ensure it remains current prior to use. The enclosed information should not be read in isolation as it is meant only as guidance for the customer, who should always ensure that they are fully conversant with the products and systems being used and their subsequent installation prior to the commencement of a job. We advise that you read and familiarise yourself with all the information contained in this literature prior to the commencement of the work or specification. For further details please refer to our Health and Safety Handling Data Sheet which is available on request.

For a comprehensive and up to date library of information visit our website at: [www.british-gypsum.bpb.com](http://www.british-gypsum.bpb.com)

**Technical enquiries**  
British Gypsum Limited  
Drywall Academy Advice Centre  
East Leake  
Loughborough  
Leicestershire  
LE12 6JT

**Telephone: 08705 456123, followed by:**  
**#1 (Literature), #2 (Specifiers), #3 (Merchants), #4 (Contractors)**  
For quality and security reasons, calls may be recorded.

**Fax: 08705 456356**  
**E-mail: [bgtechnical.enquiries@bpb.com](mailto:bgtechnical.enquiries@bpb.com)**

**Training enquiries: 08702 406040**



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