



Gyproc ThermaLine PIR

Product Data Sheet

Introduction

Characteristics

Gyproc WallBoard factory-bonded to CFC and HCFC-free high thermal performance polyisocyanurate foam insulant, meaning zero ODP (Ozone Depletion Potential). It has B-S1, d0 reaction to fire and 30 minutes fire protection performance on timber frame constructions. Includes two vapour control layers as standard to reduce risk of condensation.

Gyproc WallBoard consists of an aerated gypsum core encased in, and firmly bonded to strong paper liners. The PIR insulant is then further bonded to the finished plasterboard. Gyproc WallBoard is a plasterboard that is suitable for drylining internal surfaces.

Applications

A very high performing, yet cost-effective, thermal laminate used for refurbishment and room-in-the-roof applications where a substantial upgrade in thermal insulation is required.

Board colour

- Faced with ivory coloured Gyproc WallBoard
- Backed with pale yellow polyisocyanurate foam with vapour control barrier

Board printing

Face - screw centre markings 'x'.
Edge - product code, EAN number, board thickness x width x length, edge type.
Foam edge - British Gypsum, width
Reverse - none.

Board range

Width mm	Length mm	Edge type
38mm board 1200	2400	Kg/m ² = $\boxed{9.4}$ R (m ² K/W) = $\boxed{1.15}$ T/E
53mm board 1200	2400	Kg/m ² = $\boxed{9.8}$ R (m ² K/W) = $\boxed{1.85}$ T/E
63mm board 1200	2400	Kg/m ² = $\boxed{10.1}$ R (m ² K/W) = $\boxed{2.30}$ T/E
78mm board 1200	2400	Kg/m ² = $\boxed{10.5}$ R (m ² K/W) = $\boxed{3.00}$ T/E
93mm board 1200	2400	Kg/m ² = $\boxed{10.9}$ R (m ² K/W) = $\boxed{3.65}$ TE

T/E = Tapered Edge.

Finishing

Board types

T/E - with Gyproc jointing materials for taped and filled joints or application of Thistle Board Finish or Thistle Multi-Finish plaster.

Plastering

The face (ivory) of Gyproc WallBoard can be plastered with either Thistle Board Finish or Thistle Multi-Finish. There should be the minimum of delay between completion of the lining and the commencement of plastering.

Jointing

Gyproc jointing materials produce durable joint reinforcement and a smooth, continuous, crack-resistant surface ready for priming and final decoration. A number of jointing specifications are available to suit the board type, method of application, and site preference.

Decoration

After the joint treatment has dried, decoration, including any decorator's preparatory work, should follow with the minimum delay.

Repair

Minor damage - Lightly sand the surface to remove burrs and fill flush with Gyproc Easi-Fill or Gyproc Easi-Fill 45, or two applications of Gyproc Joint Cement. When dry, apply Gyproc Drywall Primer or Gyproc Drywall Sealer to leave the surface ready for decoration.

Deep indents resulting from impact - Check the plasterboard core to ensure that it is not shattered. If intact, apply a coat of Gyproc Joint Filler, or Gyproc Easi-Fill or Gyproc Easi-Fill 45, followed by the procedure for repairing minor damage as outlined above, once set / dry.

Damaged core and/or broken edges (non-performance situations only) - Remove the damaged area of core. Score the liner approximately 10mm away from the sound plaster around the damaged area, and peel the paper liner away. Apply Thistle GypPrime or PVA to seal the core and surrounding liner. Bulk fill the hole with a stiff mix of Gyproc Easi-Fill, Gyproc Easi-Fill 45, or Gyproc Joint Filler, and strike off flush. Apply Gyproc Easi-Fill, Gyproc Easi-Fill 45, or two applications of Gyproc Joint Cement, once the filler is set/dry. When dry, apply Gyproc Drywall Primer or Gyproc Drywall Sealer (only suitable in non-performance situations).

Extensive damage - When the damage is more extensive, it may be necessary to replace that area of plasterboard. It is important that the replacement board is of the same type as specified and installed. Cut out the affected area back to the nearest framing member. Replace the plasterboard, accurately cutting and screw-fixing the same type and thickness of plasterboard. Fill edge joints, then tape and finish in the recommended way. Treat the finished surface with Gyproc Drywall Primer or two coats of Gyproc Sealer, if previously specified for vapour control purposes. Redecorate as required.

NB It is essential that repairs are made 'like for like'. If the finish is skim plaster, jointing materials must not be used in the repair.

Standards

EN 13950: 2005 Gypsum Plasterboard, thermal / acoustic insulation composite panel - definitions, requirements and test methods.

Board 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 Building Regulations Approved Document B, plasterboard is designated a 'material of limited combustibility'. The surface of Gyproc ThermaLine PIR is designated Class 0 (for the purposes of the Building Regulations). Please refer to the table below.

Fire resistance / sound insulation

Please refer to the appropriate WHITE BOOK section for information on the fire resistance and sound insulation of building elements lined with Gyproc ThermaLine PIR, available to download from www.british-gypsum.com

Reaction to fire test performance

Standard	Performance
BS 476: Part 6: 1989 Method of test for fire propagation for products (plasterboard).	Index of performance (I) not exceeding 12 and a sub-index (i1) not exceeding 6.
BS 476: Part 7: 1997 Surface spread of flame tests for materials (plasterboard).	Class 1.
BS EN 13950 (2005).	B-s1, d0.

Thermal conductivity

- 🔗 Gyproc WallBoard = 0.19W/mK.
- 🔗 PIR foam = 0.022W/mK.

Ozone Depletion Potential (ODP)

Zero

Global Warming Potential (GWP)

<5

Effect of temperature

Gyproc ThermaLine PIR is unsuitable for use in areas subject to continuously damp or humid conditions, i.e. above 70% RH, and 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.

Effect of condensation

The thermal insulation and ventilation requirements of the Building Regulations aim to reduce the risk of condensation and mould growth in new buildings. However, designers should take care to eliminate all possibility of problems caused by condensation, particularly in refurbishment projects. For further information, please refer to THE WHITE BOOK, available to download from www.british-gypsum.com

Vapour resistance

The breakdown of the vapour control layer components are as follows:

Component	Vapour resistivity (MN/gm)	Vapour resistivity (MN/gm)
Foil / Paper (outside)	-	4000
Polyisocyanurate foam	300	dependent on thickness
Foil paper (inside)	-	4000
Plasterboard	50	0.625

Installation

General

It is important to observe appropriate health and safety legislation when working on site, i.e. personal protective clothing and equipment, etc. The following notes are intended as general guidance only. In practice, consideration must be given to design criteria requiring specific project solutions.

Handling

Manual off-loading of this product should be carried out with care to avoid unnecessary strain. For further information please refer to the Manual Handling section of THE SITE BOOK or the Manual Handling Guide, available to download from www.british-gypsum.com

Cutting

This product may be cut using a plasterboard saw. Holes for switch or socket boxes should be cut out before the boards are fixed using a utility saw or sharp knife.

When cutting boards, power and hand tools should be used with care and in accordance with the manufacturers' recommendations. Power tools should only be used by people who have been instructed and trained to use them safely. Appropriate personal protective equipment should be used.

Fixing

Fix boards with decorative side out to receive joint treatment or a skim plaster finish. Lightly butt boards together. Never force boards into position. Install fixings not closer than 13mm from cut edges and 10mm from bound edges. Position cut edges to internal angles whenever possible, removing paper burrs with fine sandpaper. Stagger horizontal and vertical board joints between layers by a minimum of 600mm. Locate boards to the centre line of framing where this supports board edges or ends.

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British Gypsum reserves the right to revise product specification without notice. The information herein should not be read in isolation as it is meant only as guidance for the user, 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 work. For a comprehensive and up-to-date library of information visit the British Gypsum website at: www.british-gypsum.com For information about products supplied by Artex Limited or Saint-Gobain Isover please see their respective websites.

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