ISOVER POLTERM MAX PLUS

Insulation for ventilated rainscreen cladding and masonry cladding

Introduction

Isover manufactures insulation with a thermal performance that helps to reduce heat loss within the building envelope and achieve the specified U-value of an installation. As a result this increase in energy efficiency aligns with the requirements of Part L (Conservation of Fuel and Power) in England and Wales or Section 6 in Scotland.

By choosing an insulation that helps to meet the required U-Value customers can contribute to green building certifications and environmental benchmarks.

In addition, Isover Polterm Max Plus achieves a European Reaction to Fire Classification of A1 – non-combustible, British Board of Agrément (BBA) certification and benefits from having a water repellent additive that enhances resistance to water penetration.

Isover Polterm Max Plus

Isover Polterm Max Plus is a 1200 x 600 mm stone wool slab covered with a black glass veil on one side which prevents show-through on a finished facade.

Certified by the British Board of Agrément (BBA Certificate No. 19/5672), the product provides thermal and acoustic insulation within ventilated rainscreen cladding and masonry cladding systems.

A1 FIRE CLASSIFICATION

The stone wool insulation is non-combustible, achieving the best attainable European Reaction to Fire Classification of A1 – non-combustible when tested in accordance with EN 13501-1. This insulation is suitable for use in rainscreen cladding systems, and timber or steel frame constructions.

THERMAL INSULATION

Used as part of a through wall system, Isover Polterm Max Plus will provide thermal performance for energy efficiency.

Code	Thickness (mm)	Length (mm)	Width (mm)	Slabs per pack	Pack area (m^2)	Packs per pallet	Pallet area (m^2)	Declared thermal conductivity (W/m.K)	Declared thermal resistance (m^2K/W)
5200853441	50	1200	600	8	5.76	20	115.20	0.035	1.40
5200857710	60	1200	600	8	5.76	20	115.20	0.035	1.70
5200859245	75	1200	600	6	4.32	20	86.40	0.035	2.10
5200857711	80	1200	600	6	4.32	20	86.40	0.035	2.25
5200860194	90	1200	600	5	3.60	20	72.00	0.035	2.55
5200845634	100	1200	600	4	2.88	20	57.60	0.035	2.85
5200867422	110	1200	600	4	2.88	20	57.60	0.035	3.10
5200845635	120	1200	600	3	2.16	24	51.84	0.035	3.40
5200859245	125	1200	600	3	2.16	24	51.84	0.035	3.55
5200918358	130	1200	600	3	2.16	24	51.84	0.035	3.70
5200867425	140	1200	600	3	2.16	20	43.20	0.035	4.00
5200845636	150	1200	600	3	2.16	20	43.20	0.035	4.25
5200857712	160	1200	600	3	2.16	20	43.20	0.035	4.55
5200918360	170	1200	600	2	1.44	28	40.32	0.035	4.85
5200857713	180	1200	600	2	1.44	24	34.56	0.035	5.10
5200918362	190	1200	600	2	1.44	24	34.56	0.035	5.40
5200845637	200	1200	600	2	1.44	24	34.56	0.035	5.70

Features and benefits

THERMAL INSULATION

Thermal performance

Isover Polterm Max Plus is available in a range of thicknesses from 50 mm up to 200 mm, with a Thermal Conductivity of 0.035 W/m.K.

ACOUSTIC INSULATION

Acoustic performance

Isover Polterm Max Plus has been tested for acoustic performance as part of the **GypLyner Xternal system**. Isover Polterm Max Plus can help to improve the acoustic performance of the external envelope, reducing unwanted external noise from sources such as weather, roads, air traffic and rail.

WATER REPELLENT

Water repellent

Polterm Max Plus contains a water repellent additive to limit water absorption.

EASE OF INSTALL

Ease of Install

Installed using standard insulation retaining fixings. The slabs will knit together when tightly butt jointed, minimising gaps which could compromise performance.

ENERGY SAVINGS

Energy saving

When installed correctly, Isover Polterm Max Plus can help to reduce energy usage of a building and prevent heat loss.

A1 FIRE CLASSIFICATION

Fire classification

Achieves a Euroclass A1 Reaction to Fire classification, when tested in accordance with EN 13501-1.

BBA

BBA Certified

Isover Polterm Max Plus has been assessed by the BBA as fit for use in defined applications (rainscreen cladding systems and timber or steel frame constructions) if installed, used and maintained as set out in the BBA Certificate 19/5672.

GypLyner Xternal

System Solution

GypLyner Xternal brings together Isover and British Gypsum products to deliver tested fire and acoustic performances and a range of options for thermal performances.

This system has been developed and tested with the same rigour and attention to detail that we apply to all our other products and systems. Isover and British Gypsum systems integrate with the Intrastack Steel Framing System (SFS), offering substantiated performances backed up by test evidence and technical expertise.

Test data for our specifications can only be used with defined Intrastack steel framing components.

Click to contact us through Technical Support to discuss working with other framing suppliers.

SpecSure®
SYSTEMS WARRANTY

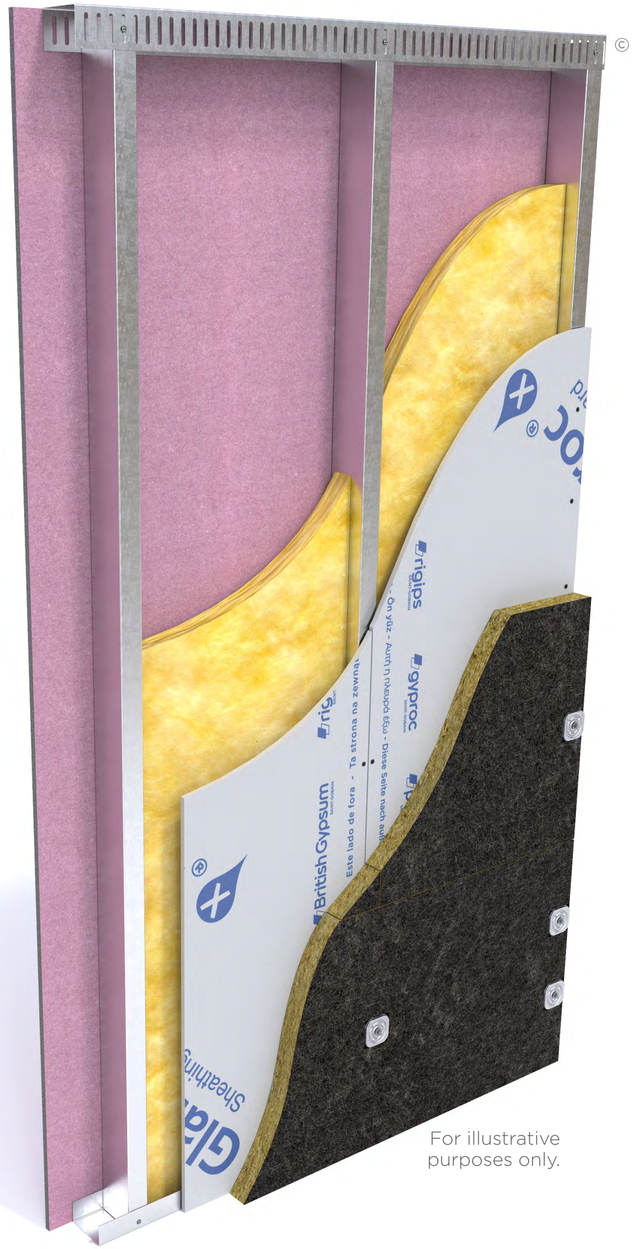
Isover and British Gypsum SpecSure® Warranty

Polterm Max Plus is featured in an Isover and British Gypsum proprietary system.

Click here to visit The White Book Specification Selector

The **SpecSure®** warranty confirms Isover and British Gypsum proprietary systems will perform as specified for the lifetime of the building.

Click here to visit Isover and British Gypsum SpecSure® System Warranty



For illustrative purposes only.

GypLyner Xternal

System Solution

A **Isover Polterm Max Plus**
A stone mineral wool slab with a black glass veil on the external side providing thermal and acoustic insulation.

B **Isover Acoustic Partition Roll (APR 1200)**
Glass mineral wool that can provide a level of acoustic performance in metal and timber stud internal walls, and within GypLyner Xternal.

C **Stainless steel self-drilling insulation fastener screws (4.8 mm diameter)**
Use to attach Polterm Max Plus into the SFS framework. Minimum 10 mm threaded penetration into the SFS framework.

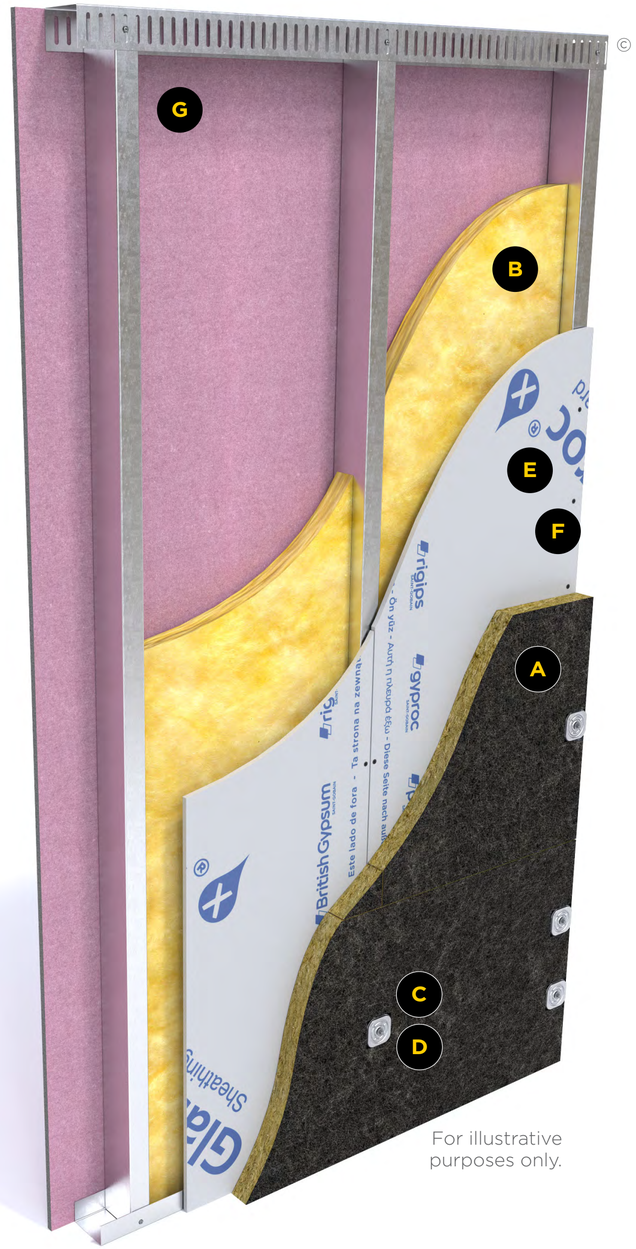
D **Stress Plate square retaining washers (70 mm x 70 mm, 6.8 mm diameter)**
Use with stainless steel self-drilling insulation fastener screws to attach Polterm Max Plus into the SFS framework.

E **British Gypsum Glasroc® X Sheathing Board 12.5 mm**
A high performance gypsum sheathing board with weather resistant properties.

F **British Gypsum Glasroc® X Screws 25 mm**
Fix weather resistant sheathing to steel frames securely.

G **British Gypsum Gyproc® FireLine 15 mm**
A plasterboard containing glass fibre and other additives for improved fire protection.

G **British Gypsum Gyproc® SoundBloc 15 mm**
A plasterboard with a high density core used to achieve specified sound insulation levels through walls, ceilings and floors.



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SpecSure®
SYSTEMS WARRANTY

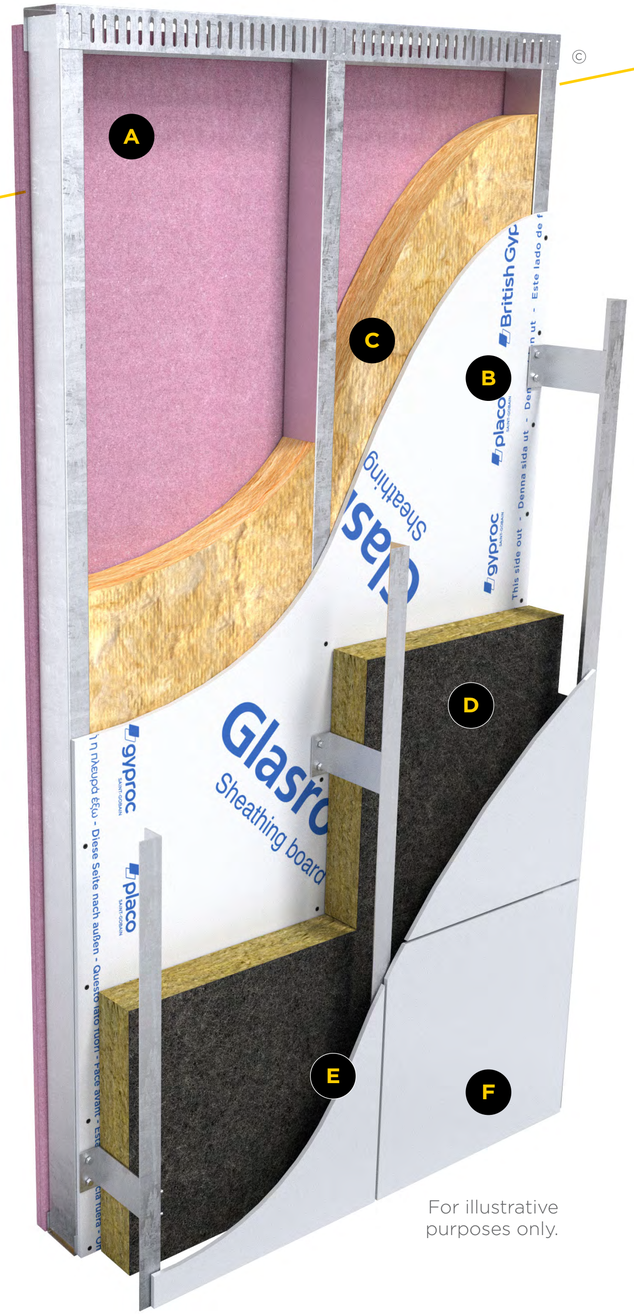
Isover Polterm Max Plus for other rainscreen cladding systems

Isover Polterm Max Plus is ideal for providing thermal and acoustic performance when used in conjunction with ventilated cladding systems.

Detail

- **A** British Gypsum Gyproc® Plasterboard
- **B** British Gypsum Glasroc® X Sheathing Board
- **C** Isover Acoustic Partition Roll (APR 1200)
- **D** Isover Polterm Max Plus
- **E** Drained and ventilated cavity*
- **F** Rainscreen facade (manufactured by others)

* Cavity barriers (by others) should be included in accordance with Approved Document B



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Isover Polterm Max Plus for masonry cladding systems

Isover Polterm Max Plus can be used as an insulation layer in framed constructions with a masonry outer leaf.

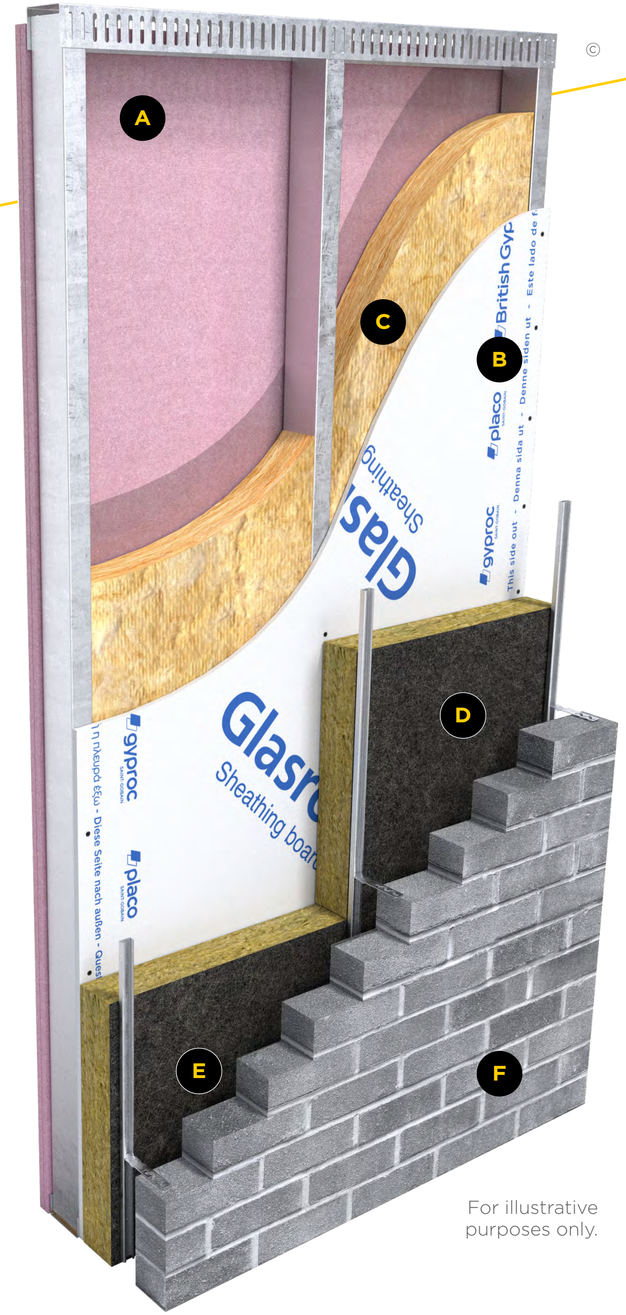
Detail

- **A** British Gypsum Gyproc® Plasterboard
- **B** British Gypsum Glasroc® X Sheathing Board
- **C** Isover Acoustic Partition Roll (APR 1200)
- **D** Isover Polterm Max Plus
- **E** Vented cavity*
- **F** Masonry cladding (manufactured by others)

In masonry façade applications, the suitability of any brick channel and tie systems that are required to secure the insulation should be sought from the system supplier.

When used as part of a fire resistant system, it may be necessary to use specified fixing patterns – refer to the system owner's specification.

* Cavity barriers (by others) should be included in accordance with Approved Document B



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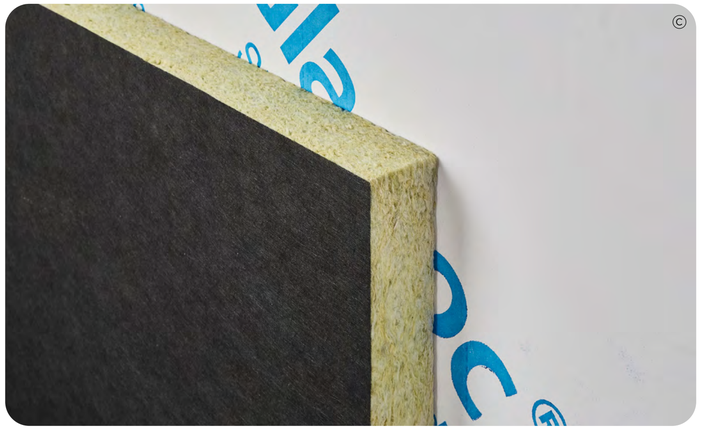
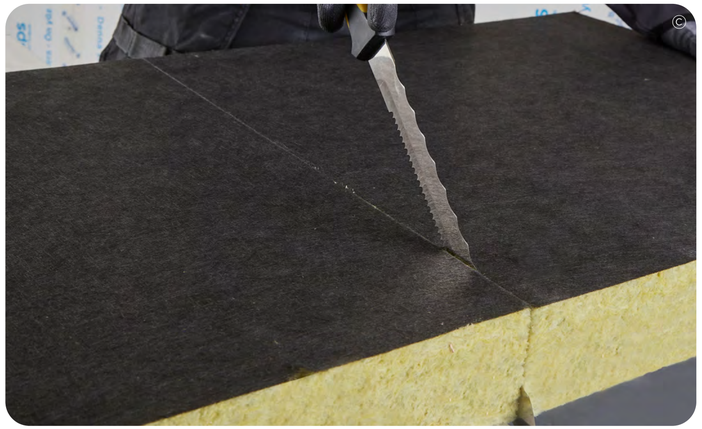
Isover Polterm Max Plus

Installation



Installation

Isover Polterm Max Plus should be installed with the black glass veil facing externally. The unfaced side will accommodate the majority of surface irregularities in the substrate.



Cutting

If any cutting of the slab is required then use an insulation saw or sharp knife with serrated edge to cut the slab to size and then fit into place.

Ensure the slab is cut neatly around penetrations and construction details such as concrete upstands at ground floor level.

Slabs should be cut accurately and tightly around cladding system brackets ensuring that there are no gaps present.

Joints

Joints between slabs should be staggered and coincidental joints should be avoided where possible.

All joints should be tightly butted together to ensure maximum thermal performance.

Isover Polterm Max Plus

Installation

Handling

Care should be taken to avoid damage to the product during the installation process from equipment such as drill chucks.

Fixing

For ventilated façade applications, standard insulation retaining fixings should be used to fix the product in place. An example of fixing pattern is shown opposite and on page 11. Ensure that mechanical fixings are not over-tightened to avoid excessive compression to the surface of the product. Specific advice relating to the type and number of fixings required should be sought from an insulation fixings manufacturer.

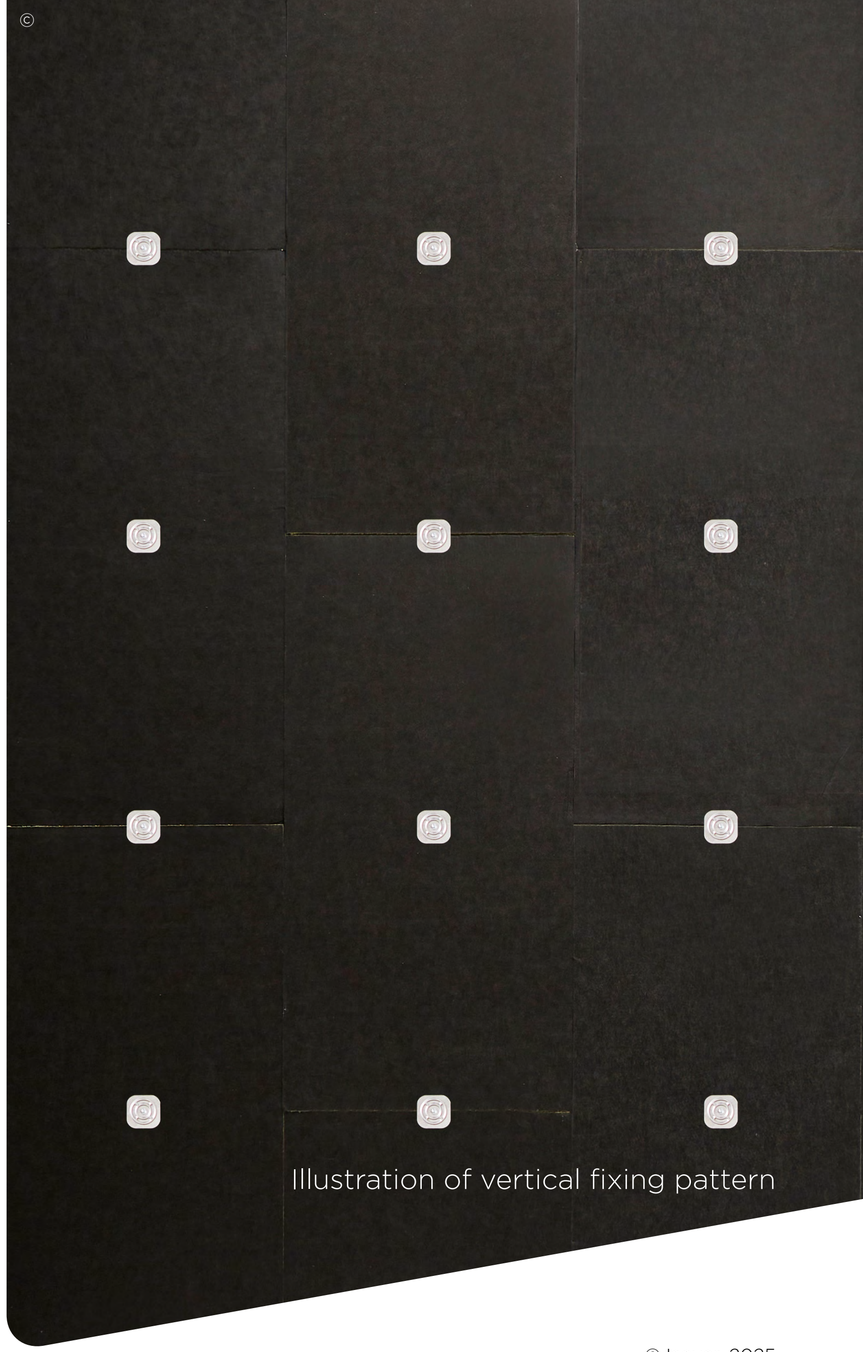


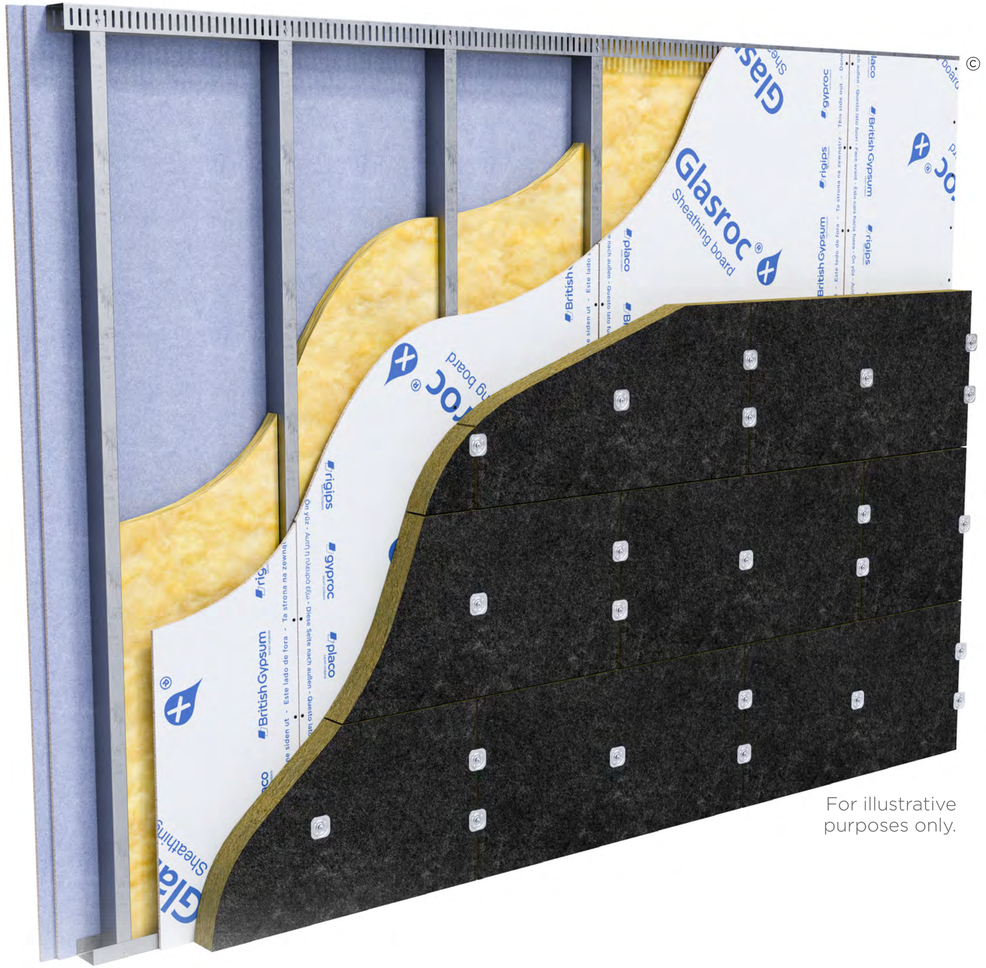
Illustration of vertical fixing pattern

Isover Polterm Max Plus

Installation

Stress plate fixing

This horizontal fixing pattern is suitable for Isover Polterm Max Plus as a stand-alone product. When fixing as part of a system installation, advice should be sought specific to that system.
See page 5 of this guide for install advice specific to GypLyner Xternal.



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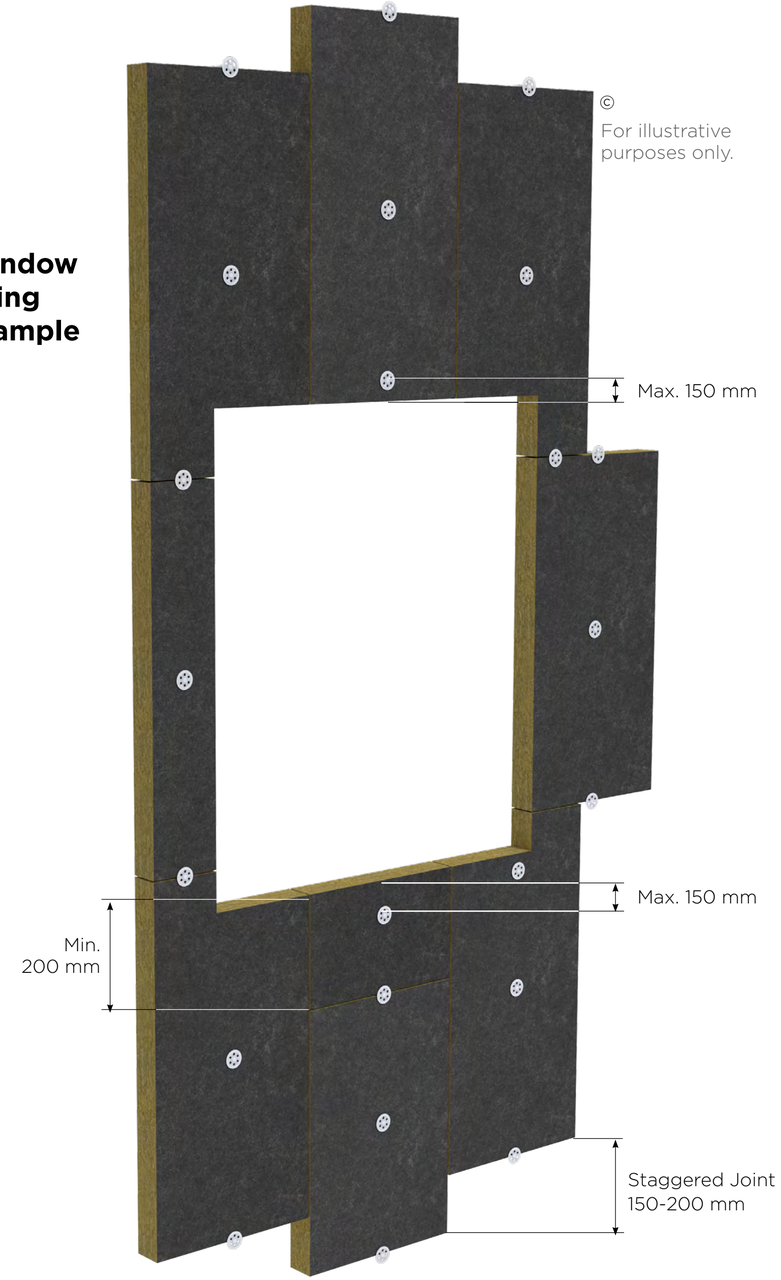
Window fixing example



Isover Polterm Max Plus

Cavity barriers

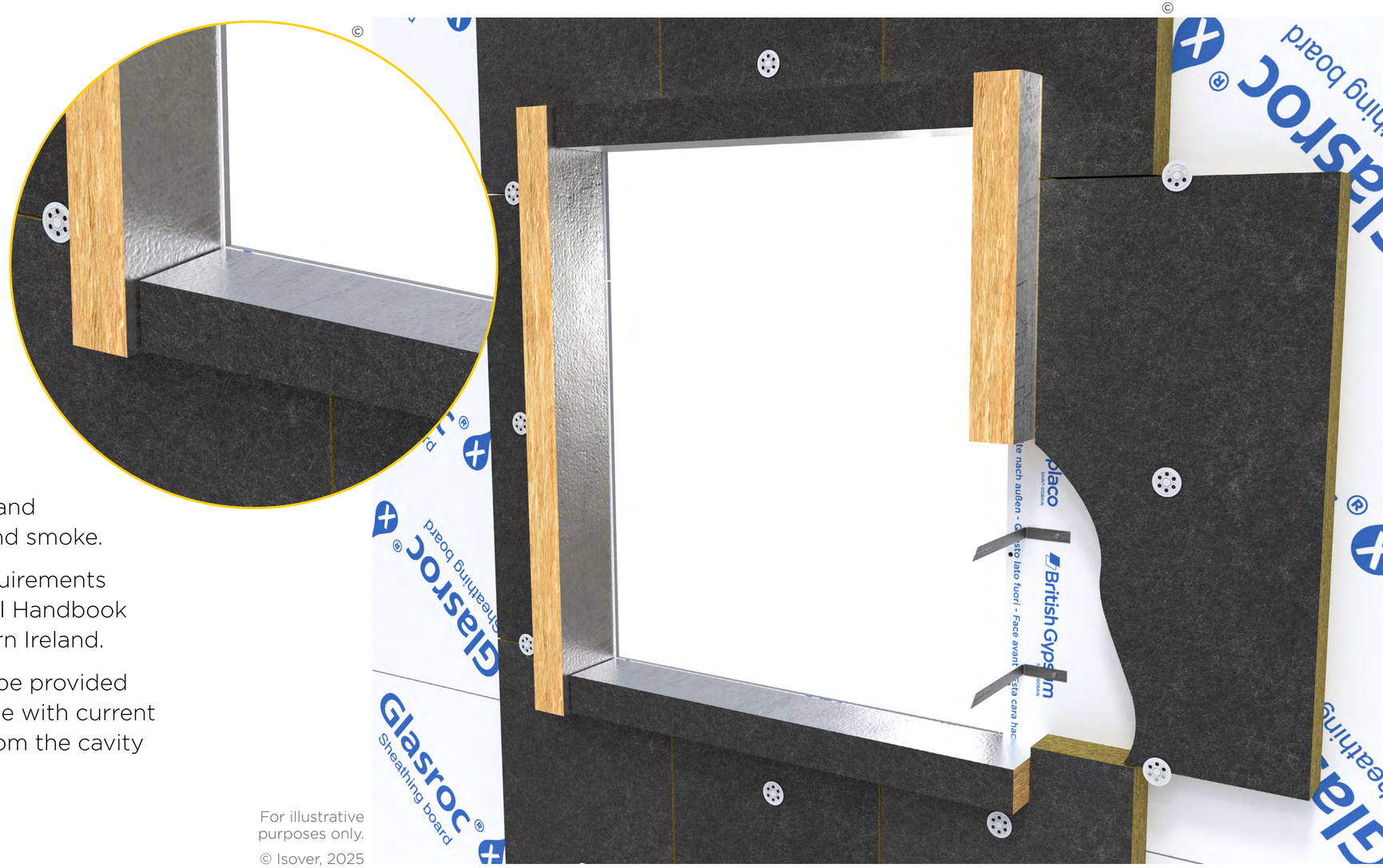
Isover Polterm Max Plus can be installed around cavity barriers on the exterior of the building.

Exterior cavity barriers play a crucial role in ensuring the fire safety and integrity of high-rise buildings. These barriers are specialised components designed to prevent the spread of flames and smoke within the exterior wall cavities of a structure. As buildings become taller and more complex, the implementation of effective fire protection measures, such as exterior cavity barriers, becomes increasingly vital.

These barriers are installed within the exterior wall cavities of a building, helping to form a compartmentation line, usually continuous with floors and compartment walls, to impede the movement of fire and smoke.

Cavity barriers must be installed to conform to the requirements of Approved Document B – England & Wales, Technical Handbook Section 2 – Scotland and Technical Booklet E – Northern Ireland.

Guidance on how to install the cavity fire barrier must be provided as part of the buildings fire stopping strategy and in line with current building regulations. This information can be sought from the cavity barrier manufacturer.



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Further Guidance

Rolling front Installation
To reduce weathering of the insulation, where possible Isover Polterm Max Plus should be covered up with the cladding on an “advancing front” as work proceeds.

On site storage
Isover Polterm Max Plus is supplied fully palletised in weatherproof packaging for outside storage. If the outer packaging is damaged, or the polythene packs are removed from the packaging, they should either be stored indoors or off the ground on a pallet under cover to keep it dry and avoid exposure to the elements.

Tools and resources

BIM Models
Seamlessly integrate our facade insulation into your Building Information Modeling (BIM) environment. Utilise our BIM-compatible solutions for precise design co-ordination and accurate thermal performance simulations within your entire wall system, ensuring alignment with the evolving Part L requirements.

Click here for access to BIM Tools

Online U-value calculator
Our U-value calculator gives you instant access to calculate a proposed insulation thickness and product selection, or provides indicative calculations for your proposed construction details.

Click to register online to access this tailored information

Warranty
Isover and British Gypsum **SpecSure®** Warranty features in a number of Isover and British Gypsum proprietary systems.

Click here to visit The White Book Specification Selector

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