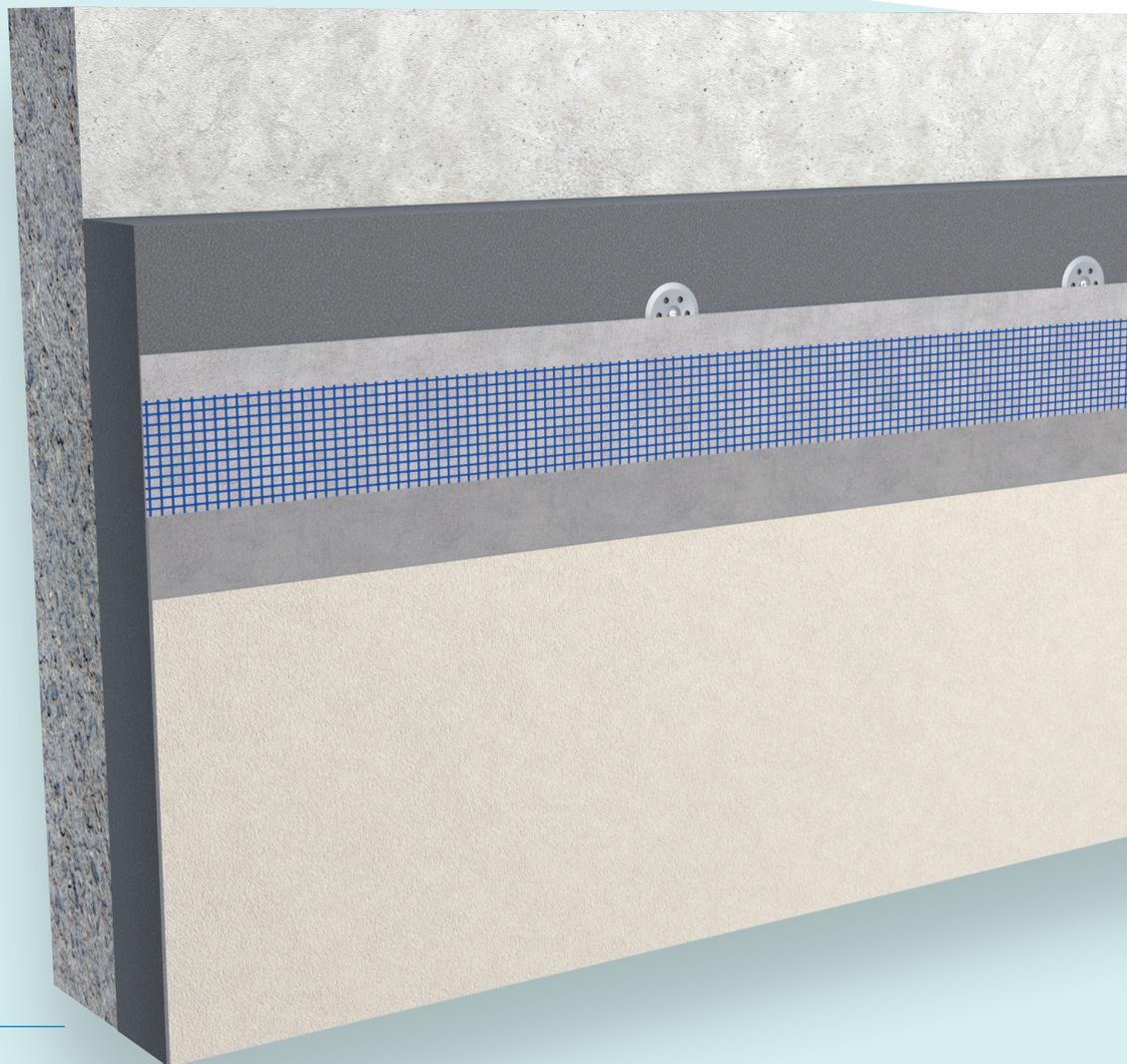


EPS EXPANDED POLYSTYRENE INSULATION

WARM-R SD E GREY EWB



Extensive range of sizes
and thicknesses

Thermal conductivity
of 0.031 W/mK



**Thermal
Conductivity
of 0.031 W/mK**

EPS EXPANDED POLYSTYRENE INSULATION

Warm-R SD E Grey EWB

Warm-R SD E Grey EWB is a high quality expanded Polystyrene containing integrated graphite within the cell structure that reflects and absorbs radiant heat resulting in an improved thermal insulation performance.

This board is an Expanded Polystyrene with Graphite/Carbon Enhancement. The graphite particles act as infrared absorbers to reduce heat dissipation caused by the radiation. This improves the thermal conductivity of the board to 0.031 W/mK, an improvement on conventional expanded polystyrene products.

Benefits

- Extensive range of sizes and thicknesses
- Thermal conductivity of 0.031 W/mK

Specification Clause

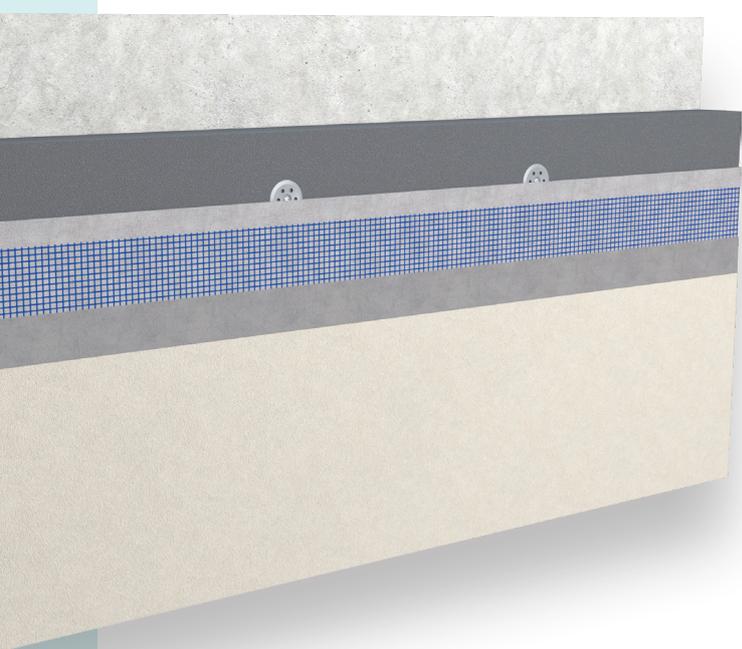
The wall insulation shall be Unilin Insulation Warm-R SD E Grey EWB manufactured to EN 13163 by Unilin Insulation, comprising a graphite enhanced EPS ___mm with a Agrément declared Lambda value of 0.031 W/mK to achieve a U-Value of ___ W/m²K for the wall element. To be installed in accordance with instructions issued by the full system provider.

Refer to NBS clause E21 210 & 220



Thermal Resistances

Thickness (mm)	R-Value (m ² K/W)
80	2.55
100	3.20
120	3.85
140	4.50
220	7.05



Warm-R SD E Grey EWB

Application

This product provides thermal insulation to new and existing rendered or unrendered masonry (all surfaces should be sound).

Description

Warm-R SD E Grey EWB insulation board is suitable for mechanical fix to sound substrate using approved fixings at a specified rate per board. Contact EWI provider for specific fixing guidelines and type.

When considering use on uneven surfaces then bedding shall be required in accordance with the system specification.

Quality

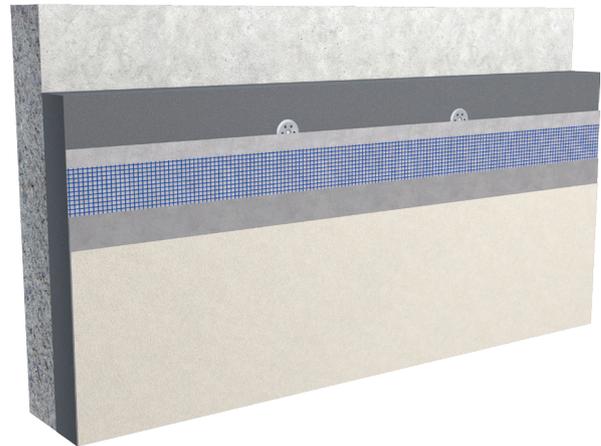
Warm-R SD E Grey EWB range is manufactured to: ISO 9001 Quality Management System ISO 14001 Environmental Management System

Warm-R SD E Grey EWB

Board Sizes (mm)	2400 x 1200 1800 x 1200
Thickness (mm)	80, 100, 120, 140, 220

Property & Units

Thermal Conductivity	0.031 (W/mK)
Length Tolerance	± 2mm
Width Tolerance	± 2mm
Thickness Tolerance	± 1mm
Flatness Tolerance	5mm
Squareness Tolerance	± 2mm / 1200mm
Dimensional Stability	DS(70,90)1
Compressive Strength	>70 (kPa)
Fire Properties	Euroclass E



New Build



Refurbishment

INSTALLATION GUIDELINES

Warm-R SD E Grey EWB

EWB Standards & Thermal Conductivity

EPSP: EN13163: Thermal insulation products for buildings - Factory made products of expanded polystyrene (EPS) Specification. Warm-R Enhanced EPS has a thermal conductivity (90/90 value) of 0.031 W/mK.

System Compatibility

Each EWI system supplier must refer to the published physical properties and standards to which this board is manufactured and take the necessary actions to establish the suitability for each specific systems application.

Quality Inspection

A visual check of each board must be conducted by suitably qualified/trained operative to ensure that wet or otherwise damaged boards are not installed.

QC Report Procedure

Unilin shall be notified in writing within 2 days of delivery should any concerns be identified. Failure to notify shall render any claims invalid.

Sitework

Insulated rendered systems are proprietary and use many different methods of fixing the board to suitable substrates. Specific sitework guidance must be sought from the system manufacturer.

Daily Working Practice

At the end of each days work or upon interruption for extended periods of time the surface of all boards should be covered in order to protect from inclement weather.

Product Improvement

Unilin has a policy of continual product development and reserves the right to change the specification without prior notice.

Standards

Warm-R SD E Grey EWB is manufactured to EN 13163 under quality systems approved to ISO 9001 quality management, EN ISO 14001 environmental management

Cutting

The boards can be readily cut using a sharp knife or fine toothed saw. Ensure tight fitting of the insulation boards to achieve continuity of insulation as asked for in accredited details.

Packaging

The product is wrapped in polythene packs and each pack is labelled with details of grade/type, size and number of pieces per pack.

Availability

Unilin products are available through builder's merchants and specialist distributors throughout the UK and Ireland. For the location of your nearest stockist contact Unilin.

Durability

Warm-R SD E Grey EWB is classified as a non-deleterious material and when correctly applied will last the life time of the rendering system.

Good workmanship and appropriate site procedures are necessary to achieve expected performance. The information contained in this data sheet is, to the best of our knowledge, true and accurate but any recommendations or suggestions which may be made are without guarantee since the conditions of use are beyond our control. Unilin reserve the right to change the content of this datasheet without prior notice.

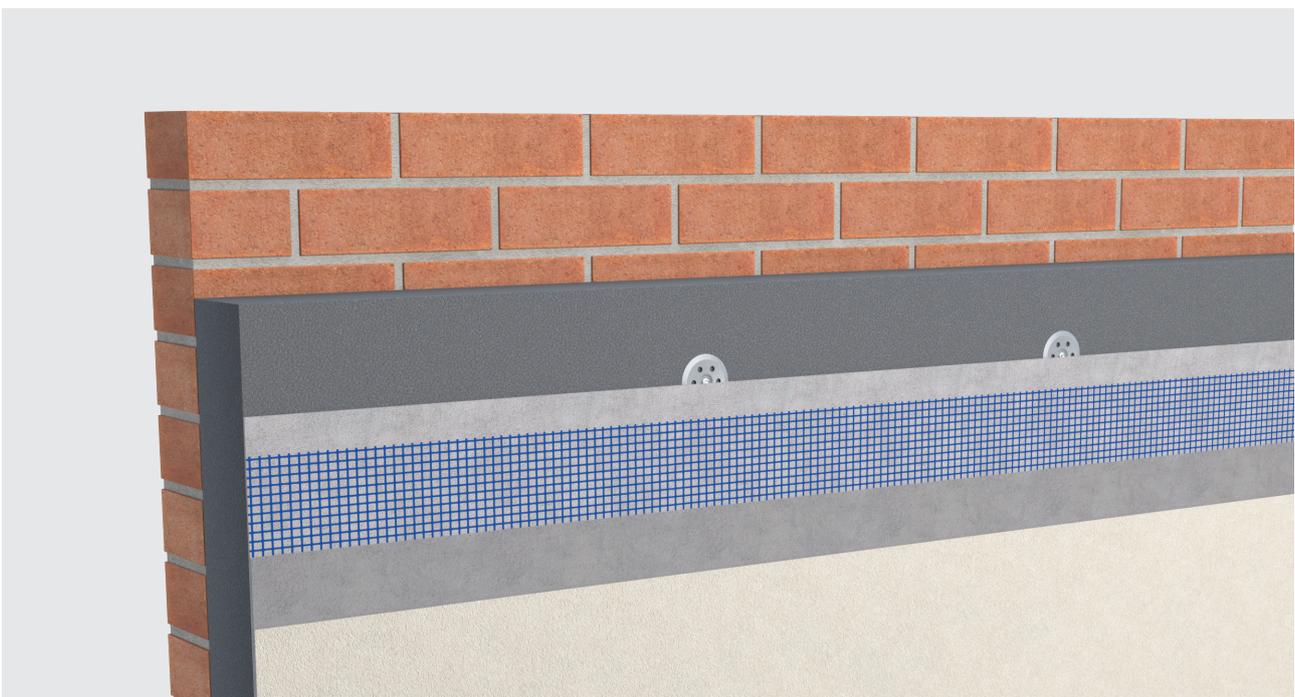
THERMAL PERFORMANCE

Warm-R SD E Grey EWB

Typical U-Values

Wall Type	80mm	100mm	120mm	140mm	220mm
Cavity Empty	0.31	0.26	0.22	0.20	0.13
Cavity 50mm EPS	0.22	0.19	0.17	0.16	0.11
Hollow Block	0.33	0.27	0.23	0.20	0.13
Solid Block	0.33	0.27	0.23	0.20	0.13

Calculation based on plastic insulation anchors.



HANDLING, CUTTING & STORAGE

Unilin insulation should be stored off the ground, on a clean, flat surface and must be stored under cover. The polythene wrapping is not considered adequate protection for outside exposure. Care should be taken to protect the insulation in storage and during the build process.

The insulation boards can be readily cut using a sharp knife or fine toothed saw. Ensure tight fitting of the insulation boards to achieve continuity of insulation as asked for within the ACDs. Appropriate PPE should be worn when handling insulation. Please refer to Health & Safety data sheets on our website.

The boards are wrapped in polythene packs and each pack is labelled with details of grade/type, size and number of pieces per pack.

Durability

Unilin Insulation products are stable, rot proof, provide no food value to vermin and will remain effective for the lifetime of the building, dependent on specification and installation. Care should be taken to avoid contact with acids, petrol, alkalis and mineral oil. When contact is made, clean materials in a safe manner before installation.





Expect more Knowledge

Unilin Insulation, formerly Xtratherm, is one of Ireland's largest manufacturers and suppliers of insulation. We have a 30 plus year history of working in partnership with construction professionals to close the gap between design and as-built performance.

Higher standards of fabric performance call for greater adherence to best practice detailing. To achieve this and to 'close the gap' between design and build, we provide a dedicated Technical Team, all qualified to the highest standards of competency in U-Value calculation and condensation risk analysis.

Here to support you

- BRE listed Thermal Bridging Detailing
- BRE/NSAI Trained Modelling
- BBA/TIMSA calculation competent
- Warranted Calculations available
- Immediate technical response
- DEAP Qualified
- Insulation systems to deliver real onsite performance

Get in touch

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FREE
One-to-one
advice



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ISO 9001 Quality Management Systems
ISO 14001 Environmental Management Systems

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The Sustainable Solution

Specifying Unilin Insulation is a real commitment to minimising energy consumption, harmful CO₂ emissions and their impact on the environment. Using our products is one of the most effective ways to reduce energy consumption – in fact, after just eight months the energy they save far outweighs the energy used in their production. In addition, our manufacturing facilities operate to an ISO 14001 certified Environmental Management System.

Environmental Product Declaration (EPD)

An Environmental Product Declaration or EPD for a construction product indicates a transparent, robust and credible step in the pursuit and achievement of real sustainability in practice, it is a public declaration of the environmental impacts associated with specified life cycle stages of that product. Unilin EPDs have been independently verified in accordance with EN 15804+A2:2019 and ISO 14025 accounting for stages of the LCA from A1 to A3, with options A4-A5 and modules C1-C4 and D included. The process of creating and EPD allows us to improve performance and reduce resource wastage through improvements in product design and manufacturing efficiency. They play a crucial role in manufacturing and construction and are increasingly asked for by industry.

EPDs and BREEAM

BREEAM is primarily trying to encourage designers to take EPDs into consideration when specifying products. BREEAM requires EPDs to be verified by a third-party. For the Mat O2 category, points are awarded based on whether EPDs are generic, manufacturer-specific, or product-specific. Non 3rd party verified EPDs to EN 15804 cannot be accepted. All of Unilin EPDs are externally verified.

Responsible Sourcing

Unilin has BES 6001 certification for responsible sourcing. The second BREEAM credit under that category is based on responsibly-sourced materials – at least 80% of the total insulation used in roofs, walls, ground floors and services must meet any of tier levels 1 to 6 in the BREEAM table of certification schemes. Our Environmental Management System is certified under EN ISO 14001, and our raw materials come from companies with similarly certified EMS (copies of all certificates are available for BREEAM assessments). This level of responsible sourcing meets tier level 6 in the BREEAM table.

Good workmanship and appropriate site procedures are necessary to achieve expected thermal and airtightness performance. Installation should be undertaken by professional tradespersons. The example calculations are indicative only, for specific U-Value calculations contact Unilin Insulation Technical Support. Unilin technical literature, Agrément certifications and Declarations of Performance are available for download on the Unilin Insulation website. The information contained in this publication is, to the best of our knowledge, true and accurate at the time of publication but any recommendations or suggestions which may be made are without guarantee since the conditions of use are beyond our control. Updated resources may be available on our websites. All images and content within this publication remain the property of Unilin Insulation.