

STONEWOOL NON-COMBUSTIBLE
INSULATION

Ventilated Rainscreen Cladding

SW/RS

Unilin's range of non-combustible, Euroclass 'A1' stonewool insulation provides surety when the highest fire performance is required. **Stonewool Rainscreen** insulation is suitable for use in ventilated facade, rainscreen and framing applications and closed systems such as curtain walling.

Unilin's Stonewool insulation provides a uniform, high density solution throughout the product providing resilience during the build process for the application of mechanically fixed substrates.

Benefits

- Euroclass A1 Fire classification
- High density
- Improved acoustic performance
- Suitable for use in high rise buildings

**Specification Clause**

The rainscreen insulation shall be Unilin Insulation Stonewool ___mm manufactured to EN 13162:2012+A1:2015. The Unilin Insulation Stonewool SW/RS ___mm with a Declared Lambda value of 0.036 W/mK to achieve a U-Value of ___W/m²K for the wall element. To be installed in accordance with instructions issued by the facade engineer.

Refer to NBS clause
P10 42, P10 217, H11 110.
Uniclass Pr 25 57 06 56.

**Thermal Resistances**

Board sizes 1200 x 600mm (Edge Profile SE)

Thickness* (mm)	R-Value (m ² K/W)
100	2.75
120	3.30
150	4.15

*Other sizes available dependent on quantity and lead time

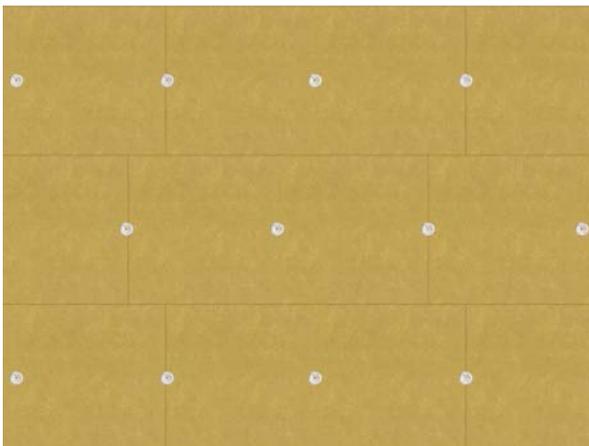
Resistance 'R' Values

The resistance value of any thickness of Unilin insulation can be ascertained by simply dividing the thickness of the material (in metres) by its declared Lambda value, for example: Lambda 0.036 W/mK and thickness 100mm -> 0.100/ 0.036 -> R-Value = 2.75. In accordance with EN 13162 R-Values should be rounded down to the nearest 0.05 (m²K/W).

SW/RS

Installation

- Unilin Stonewool is delivered in packs, wrapped in polythene, suitable for short term storage in the open. For longer periods of storage, packs should be stored off the ground and under cover. The high density panels can endure a reasonable length of time exposed during installation, however, as with all building processes, protection during the build process should be provided, where possible. Breather membranes if specified within the system, will provide additional protection.
- Panels are easily cut to any shape with a fine tooth saw or a sharp knife. Neat fitting to adjoining boards and around any penetrations is essential to achieve good thermal performances.
- Tight abutment with adjoining boards allows for continuity.
- Boards should be applied in a break-bonded pattern. With all joints tightly butted.
- Using a combination of metal and polypropylene 'mushroom' type fixings with a minimum diameter of 70mm will provide adequate fix until the main cladding system is applied.
- All penetrations, through the insulation layer, at floor junctions and openings should be accounted for in the thermal calculations.
- For advice on rainscreen fixings,



contact the system specifier, ensuring all fixings are accounted for when modelling thermal performance.

- Suitable Board Fixing Manufacturers
- Hilti/EJOT/Fischer

U-Values

The calculation of U-Values Guidelines given in BR443 (2019) Conventions for U-Value calculations and EN ISO 6946:2017 Building components and building elements - Thermal resistance and thermal transmittance_ _ _Calculation method should be followed. As proprietary systems are used, and bespoke fixing patterns required, full analysis of wall lay out and fixing system supplied should be analysed for accurate calculation. Contact Unilin Technical Support for advice.



HANDLING, CUTTING & STORAGE

- Unilin Stonewool is delivered in packs, wrapped in polythene, suitable for short term storage in the open. The high density panels can endure a reasonable length of time exposed during installation, however, as with all building processes, protection during the build process should be provided, where possible. Each pack is labelled with details of grade/type, size and number of pieces per pack.
- Panels are easily cut to any shape with a fine tooth saw or a sharp knife. Neat fitting to adjoining boards and around any penetrations is essential to achieve good thermal performances.
- Tight abutment with adjoining boards allows for continuity.
- Boards should be applied in a break-bonded pattern, with all joints tightly butted.
- Using a combination of metal and polypropylene 'mushroom' type fixings with a minimum diameter of 50mm will provide adequate fix.
- All penetrations, through the insulation layer should be detailed to the fire engineers specifications.

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.

Ensure tight fitting of the insulation boards to achieve continuity of insulation. 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, depending 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 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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ISO 9001:2015+A1:2024 Quality Management Systems

ISO 14001:2015+A1:2024 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 14001:2015+A1:2024 certified Environmental Management System.

Environmental Product Declaration (EPD)

An Environmental Product Declaration or EPD for a construction product indicates a transparent 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 14025:2010 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 an 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 15804:2012+A2:2019 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 14001:2015+A1:2024, 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.