# Superglass Cladding Mat
## Best Practice Guide

**This document has been created as a guide to the installation of Superglass Cladding Mat. Always refer to the system manufacturers documents for specific instructions**


### 1. Introduction

Insulating a building is an important step to save energy and lower heating and cooling bills. However, proper installation during construction is essential for its effectiveness.

This guide outlines best practices for storing, handling, and installing Superglass Cladding Mat in built-up metal roof and wall systems, aiming to enhance building envelope performance, efficiency, and health & safety.

### 2. Product

Superglass Cladding Mat is a non-combustible glass mineral wool insulation.

Glass Mineral Wool Insulation is the most commonly used insulation material in metal-clad buildings due to its non-combustibility, lightweight nature, low thermal conductivity, and ease of handling.

#### 2.1 CCPI (Code for Construction Products Information)

Superglass cladding insulation products hold CCPI Assessment Mark.
Certificate number: 005800128/0227.

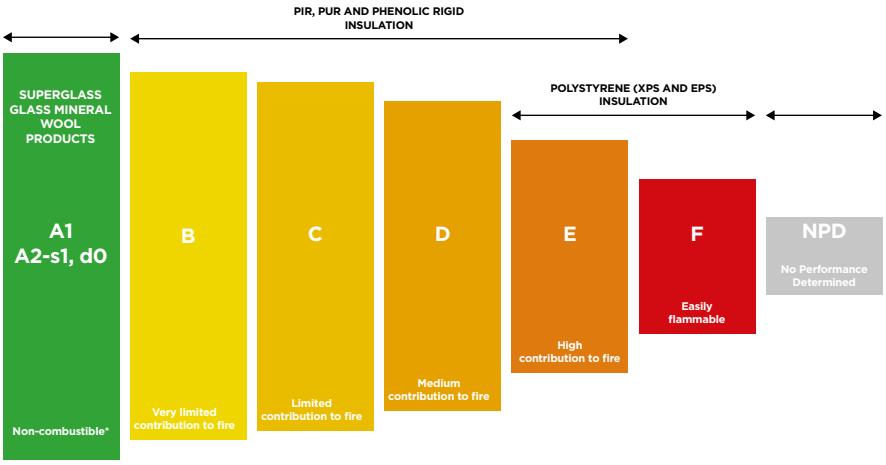

### 3. Performance

#### 3.1 Fire Classification

All Superglass Cladding Mat products are deemed non-combustible with a fire classification of Euroclass A1 (the highest possible rating) when tested to BS EN 13501:2018 Reaction to Fire.

**What does non-combustible mean?**
Non-combustible' refers to a material that does not ignite, burn, or support combustion when exposed to fire or heat. In other words, non-combustible materials do not contribute to the spread of flames.

This property is crucial for building materials, as it enhances fire safety and helps protect structures and occupants in the event of a fire.




*As set out in changes to the building regulations 2010 which bans the use of combustible materials, limiting the use of materials to those that achieve A1 or A2-s1,d0 on buildings in scope of the ban [as defined in regulation 7(4)]

Notes: Other classifications of smoke and flaming droplets within A2 are classed as limited combustibility. (Not shown here as no insulant falls in that category)

NPD - No Performance Determined. In this instance no performance is declared and information regarding reaction to fire performance is unknown. Illustration for guidance only. It is crucial to check the actual Euroclass reaction to fire classification of a product before use.

**Reaction to Fire**
This is a measurement of how building materials or systems will contribute to the development and spread of a fire, especially in the early stages, when evacuation is crucial.

All insulation materials are given a Euroclass reaction to fire classification in accordance with BS EN 13501-1 Reaction to Fire.

Testing assesses the performance of materials in terms of fire behaviour, smoke production, and flaming droplets, resulting in a range of classification possibilities. All Superglass products are non-combustible, achieve the highest possible Euroclass A1 Reaction to Fire classification and do not produce smoke or droplets.

By choosing non-combustible insulation materials, building designers and specifiers can help mitigate the risk of fire within the building fabric from the outset.

### 3.2 Thermal Performance

In terms of thermal performance, Superglass Cladding Mat offers a range of declared thermal conductivities (lambda (λ) value) for the designer to select from depending on the specific u-value requirements.

Superglass Cladding Mat 32 – 0.032W/mK
Superglass Cladding Mat 35 – 0.035W/mK
Superglass Cladding Mat 37 – 0.037W/mK

**Typical u-values (W/m²K) achieved – Walls**

| Insulation Thickness (mm) | Cladding Mat 32 | Cladding Mat 35 | Cladding Mat 40 |
|---|---|---|---|
| 280 | 0.14 | 0.15 | 0.16 |
| 260 | 0.15 | 0.16 | 0.18 |
| 240 | 0.16 | 0.17 | 0.19 |
| 200 | 0.19 | 0.20 | 0.22 |
| 180 | 0.21 | 0.22 | 0.25 |
| 160 | 0.23 | 0.25 | 0.28 |
| 140 | 0.26 | 0.28 | 0.32 |

Rail Spacing: 1200mm
Rail Width: 40mm
Rail Thickness: 1.2mm

**Typical u-values (W/m²K) achieved – Roofs**

| Insulation Thickness (mm) | Cladding Mat 32 | Cladding Mat 35 | Cladding Mat 40 |
|---|---|---|---|
| 280 | 0.14 | 0.15 | 0.17 |
| 260 | 0.15 | 0.16 | 0.18 |
| 240 | 0.16 | 0.17 | 0.19 |
| 200 | 0.19 | 0.20 | 0.23 |
| 180 | 0.21 | 0.23 | 0.25 |
| 160 | 0.24 | 0.25 | 0.28 |
| 140 | 0.27 | 0.29 | 0.33 |

Rail Spacing: 1200mm
Rail Width: 40mm
Rail Thickness: 1.2mm

The above calculations were carried out for standard twin skin rail and bracket systems. These are to be used as a guide only, the system designer/manufacturer should be consulted for project specific u-value calculations.

## 3.3 Product Specification

### Cladding Mat 32

| Thickness (mm) | Length (m) | Width (mm) | Pack Area ($m^2$) | Packs Per Pallet | Thermal Conductivity (W/mK) | Thermal Resistance ($m^2K/W$) | Product Code |
|---|---|---|---|---|---|---|---|
| 50 | 6.60 | 1200 | 7.920 | 24 | 0.032 | 1.55 | 2144237 |
| 60 | 5.60 | 1200 | 6.720 | 24 | 0.032 | 1.85 | 2144362 |
| 80 | 4.20 | 1200 | 5.040 | 24 | 0.032 | 2.50 | 2144363 |
| 90 | 3.80 | 1200 | 4.560 | 24 | 0.032 | 2.80 | 2144364 |
| 100 | 3.90 | 1200 | 4.680 | 24 | 0.032 | 3.10 | 2144236 |
| 110 | 3.00 | 1200 | 3.600 | 24 | 0.032 | 3.40 | 2144365 |
| 120 | 2.90 | 1200 | 3.480 | 24 | 0.032 | 3.75 | 2144366 |
| 130 | 3.00 | 1200 | 3.600 | 24 | 0.032 | 4.05 | 2144240 |
| 140 | 2.80 | 1200 | 3.360 | 24 | 0.032 | 4.35 | 2144239 |

Please note that all dimensions are nominal.

### Cladding Mat 35

| Thickness (mm) | Length (m) | Width (mm) | Pack Area ($m^2$) | Packs Per Pallet | Thermal Conductivity (W/mK) | Thermal Resistance ($m^2K/W$) | Product Code |
|---|---|---|---|---|---|---|---|
| 60 | 9.60 | 1200 | 11.520 | 24 | 0.035 | 1.70 | 2144354 |
| 80 | 7.20 | 1200 | 8.640 | 24 | 0.035 | 2.25 | 2144355 |
| 90 | 6.30 | 1200 | 7.560 | 24 | 0.035 | 2.55 | 2144356 |
| 100 | 6.30 | 1200 | 7.560 | 24 | 0.035 | 2.85 | 2144431 |
| 120 | 5.00 | 1200 | 6.000 | 24 | 0.035 | 3.40 | 2144292 |
| 130 | 4.25 | 1200 | 5.100 | 24 | 0.035 | 3.70 | 2144613 |
| 140 | 4.00 | 1200 | 4.800 | 24 | 0.035 | 4.00 | 2144357 |
| 150 | 3.80 | 1200 | 4.560 | 24 | 0.035 | 4.25 | 2144358 |
| 160 | 3.60 | 1200 | 4.320 | 24 | 0.035 | 4.55 | 2144359 |
| 180 | 3.20 | 1200 | 3.840 | 24 | 0.035 | 5.10 | 2144360 |
| 200 | 2.90 | 1200 | 3.480 | 24 | 0.035 | 5.70 | 2144361 |

Please note that all dimensions are nominal.

### Cladding Mat 40

| Thickness (mm) | Length (m) | Width (mm) | Pack Area ($m^2$) | Packs Per Pallet | Thermal Conductivity (W/mK) | Thermal Resistance ($m^2K/W$) | Product Code |
|---|---|---|---|---|---|---|---|
| 60 | 16.00 | 1200 | 19.200 | 24 | 0.040 | 1.50 | 2144217 |
| 80 | 12.10 | 1200 | 14.520 | 24 | 0.040 | 2.00 | 2144265 |
| 90 | 10.65 | 1200 | 12.780 | 24 | 0.040 | 2.25 | 2144264 |
| 100 | 9.95 | 1200 | 11.940 | 24 | 0.040 | 2.50 | 2144263 |
| 120 | 8.05 | 1200 | 9.660 | 24 | 0.040 | 3.00 | 2144262 |
| 140 | 7.00 | 1200 | 8.400 | 24 | 0.040 | 3.50 | 2144261 |
| 150 | 6.50 | 1200 | 7.800 | 24 | 0.040 | 3.75 | 2144387 |
| 160 | 6.05 | 1200 | 7.260 | 24 | 0.040 | 4.00 | 2144250 |
| 180 | 5.45 | 1200 | 6.540 | 24 | 0.040 | 4.50 | 2144249 |
| 200 | 4.60 | 1200 | 5.520 | 24 | 0.040 | 5.00 | 2144248 |
| 220 | 3.20 | 1200 | 3.840 | 24 | 0.040 | 5.50 | 2144214 |
| 230 | 3.10 | 1200 | 3.720 | 24 | 0.040 | 5.75 | 2144342 |
| 240 | 3.00 | 1200 | 3.600 | 24 | 0.040 | 6.00 | 2144215 |
| 260 | 3.00 | 1200 | 3.600 | 24 | 0.040 | 6.50 | 2144351 |
| 280 | 2.80 | 1200 | 3.360 | 24 | 0.040 | 7.00 | 2144369 |

Please note that all dimensions are nominal.

## 4. Design

Superglass Cladding Mat is designed for built-up cladding systems. The design should ensure the insulation fits snugly within the cavity, making contact with the underside of the external sheet. Best practice is to specify the insulation to fit the cavity gap, in a thickness that allows for a slight compression (not excessive), typically around 10%.

## 5. Health & Safety

**"The mechanical effect of fibres in contact with skin may cause temporary itching"**

**Cover exposed skin. When working in unventilated areas wear disposable face mask.**

**Clean area using vacuum equipment.**

**Waste should be disposed of according to local regulations.**

**Rinse in cold water before washing.**

**Ventilate working area if possible.**

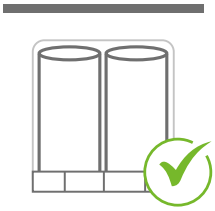
**Wear goggles when working overhead.**

Please refer to product Material Safety Datasheet (MSDS) for more information.

## 6. Site Considerations

For specific installation instructions, contact the Superglass Technical Services Team.

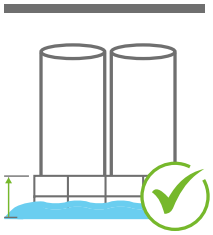
### 6.1 Storage: How to Store Our Insulation



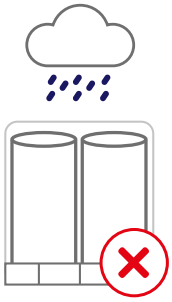
Keep the product covered and fully wrapped on a pallet until required.

A pallet that is wrapped and has an undamaged hood can be stored outside when indoor space is unavailable, provided it is kept off the ground and protected from the elements. This should only be for short-term storage and not in severe weather conditions.

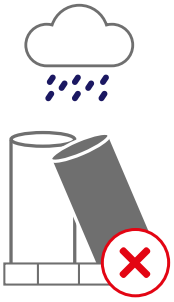
Once the plastic hood has been removed keep all of the product inside and off the ground away from the elements.



Product should be kept elevated on a pallet at all times to avoid sitting water.



Product can become wet and damaged when exposed to the elements.



Loose product is extremely likely to have water damage when left in the rain rendering your stock unfit for sale.

Please note we do not recommend that Superglass pallets are double stacked.

### 6.2 Recovery to Manufactured Thickness

Superglass Cladding Mat products are delivered to site compression-wrapped in polythene for efficient transportation. The insulation is designed to recover to its full thickness in order to fully fill the construction, as referenced in the British Standard for glass mineral wool BS EN 13162.

Once unwrapped, the installer should ensure that the Superglass Cladding Mat is recovering to its stated thickness to fill the cavity during sheeting and maintain contact with the external sheet.

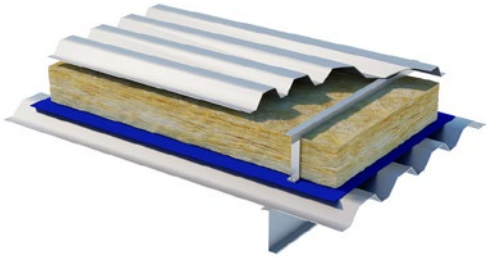
**The insulation should not be walked on or excessively compressed, as this can damage the fibres, resulting in a loss of thickness and thermal performance. If damage occurs, replacement material must be installed.**

### 6.3 Unpacking

Remove the external shrink-wrapped waterproof hooding and shrouding. Ensure that packaging is collected and disposed of responsibly, as discarding it within the construction is unacceptable and will negatively impact performance. Once unpackaged, the insulation rolls should not be left exposed to the elements.

## 7. Roof Installation

For roof installations, start by placing rolls of Superglass Cladding Mat along each run, beginning at the ridge. The rolls are a standard 1200mm width, and the polythene packaging should be cut lengthwise, removed, and disposed of responsibly. Ensure that polythene, fixings, fillers, and mastics are NOT discarded within theroof construction.



Position the Cladding Mat between the profiled metal outer cladding sheets and the inner lining sheets, which are fixed on top of the supporting purlins. Typically, inner and outer sheets are separated by rail and bracket systems or preformed insulated spacers. When using rail and bracket systems, tuck the insulation under the rails, ensuring all roll edges are tightly butted together.

Ensure the insulation is recovering to its full thickness and filling the cavity with a small degree of compression.

When laying insulation around roof lights, ensure a clean edge runs the length of the roof light for a continuous insulation run. The rail and bracket system will provide the necessary space for the insulation, which is then secured to the purlin.

All joints should be closely butted to reduce the risk of air gaps. For double layer insulation systems joints should be staggered to minimise thermal bridging gaps. If brackets are already in place, compress the insulation around the bracket and under rails for a tight fit to minimise the potential for gaps. Depending on the density of the insulation, application and system, you may need to cut the insulation to fit around brackets.

**Avoid walking on or excessively compressing the Superglass Cladding Mat, as this can damage the fibres, resulting in a loss of thickness and thermal performance. If any damage occurs, replacement material must be installed.**

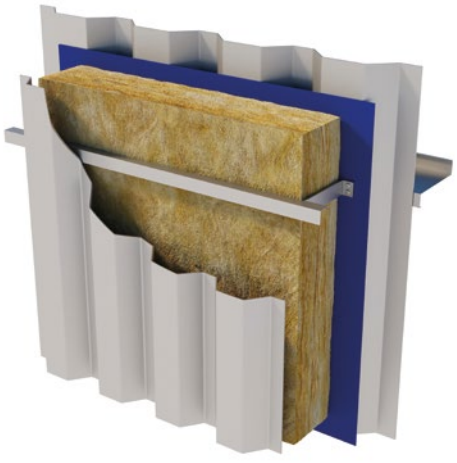
### 7.1 Protection

Avoid exposing the insulation to the elements, and always install Superglass Cladding Mat in a dry state.

Lay out only as much insulation as you can fit within your work period or before any rain. Ensure that any insulation at ridges and verges is protected until it can be covered by flashings.

## 8. Wall Installation

For wall installations, typically performed from a scissor lift, unwrap the insulation and remove the packaging, the package should be disposed of responsibly. Ensure that polythene, fixings, fillers, and mastics are NOT discarded within the wall construction.



If the system includes horizontal spacers, clamp the insulation across the entire width at the top of the wall to prevent slumping. Use the support rail and bracket system, which is then secured to the cladding rail, to help minimise thermal bridging. Allow the roll to drop down and secure the support rail at regular intervals.

If the system includes vertical spacers, contact the system manufacturer to determine the best way to clamp and secure the insulation, preventing it from sagging.

In both scenarios, ensure the insulation is tucked under the rails and the roll edges are tightly butted to maintain continuity. Additionally, avoid leaving the insulation exposed to the elements for extended periods.

For extra support, you can use stick pins or other fasteners at regular intervals. Press the insulation onto the stick pins and secure it with non-return washers, ensuring they hold the material without compressing it. Secure the fixings the day before on a dry surface; mechanical fasteners are recommended at rail positions.

Compress and shape the insulation around the brackets and under rails to minimise thermal bridges and gaps. Ensure the joints are tightly butted to reduce edge formation and pin each end of the joints to prevent sagging. If double-layer insulation is needed, stagger the joints where possible.

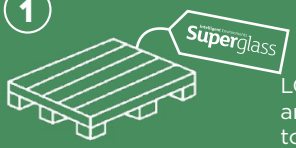
# Superglass is proud to be in the loop

The Pallet LOOP is a sustainable, cost-effective, easy-to-administer system covering pallet design and manufacture, pallet delivery and recovery, and a cash back incentive. Our deliveries of cured glass mineral wool products will be loaded onto LOOP pallets.

The collection process is really simple too, and using the LOOP can dramatically improve your own sustainability credentials, as you'll be helping to contribute to the UK's zero waste and zero carbon aims. **It's a win-win, all round!**

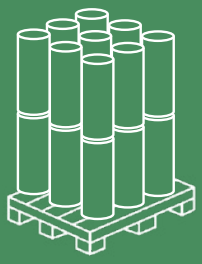
## Here's how the recover/repair/reuse cycle works:

1




LOOP pallets are delivered to Superglass

2



Our cured glass mineral wool products are loaded onto LOOP pallets and delivered to customers

3

Once unloaded, pallets can be booked for collection

4


The Pallet LOOP collects the pallets, and pays you up to £4 per green pallet*

**Scan here for our dedicated Pallet Loop page**

the pallet® loop

BSWGROUP member of binderholz

*£4 will be credited to your account for every green LOOP pallet collected in good condition.
£2 will be credited for LOOP pallets that require cleaning or are damaged.

## 9. Standard of Workmanship

The overall performance of the system relies on high-quality workmanship, ensuring there are no gaps in the insulation. Building Regulations require that the building fabric be constructed without significant thermal bridges or gaps in the insulation. Therefore, it's crucial to install it carefully, making sure that junctions, apertures, ridges, eaves, and corners are fully filled.

## 10. Packaging & Waste Material

Our products and their pallets are wrapped in low-density polyethylene (LDPE4) plastic, which contains a minimum 30% recycled material and is fully recyclable. Before recycling, please consult your local authority for guidance.

Superglass insulation products can be recycled but Superglass do not have the facilities to recycle these products. Therefore, any waste product should be disposed of to landfill in accordance with local waste disposal regulations.

## Accreditations

## Memberships



Etex UK Insulation Ltd | Thistle Industrial Estate | Kerse Road | Stirling | FK7 7QQ | UK

**Technical**
Hotline: **0808 1645 134**
Email: **technical.stirling@etexgroup.com**

**Customer Services**
Tel: **01786 451170**
Email: **customerservice.stirling@etexgroup.com**

**Social**
**superglass_uk**
**superglassuk/**
**superglassinsulationuk**

CMIBPG05
June 2025

**superglass.co.uk**