

EARTHWOOL® METAL ROOFING ROLL (FOIL FACING)

May 2025

Applications



Earthwool Metal Roofing Rolls are used for the thermal and acoustic insulation of roofs in profiled metal clad buildings. Profiled metal roof systems typically consist of a low profile metal inner liner sheet, separated from an outer, higher profile, metal weather sheet. The cavity between them is filled with a layer of non-combustible thermal insulation to provide the specified level of thermal and acoustic performance.

Built-up metal roofing systems are typically assembled on site with the design and components used forming part of a proprietary system. Earthwool Metal Roofing Rolls are manufactured at 1,200mm wide to suit commonly used rail and bracket systems designed for use in twin skin profiled metal cladding systems and standing seam roofs.



Description

The foil facing with 97% reflective Aluminium foil, and reinforced by fire-resistant glass scrim enhances visibility by reflecting visible light, making it an ideal product for environments where optimal levels of internal lighting are required.

The Glass Mineral Wool product with foil-facing lamination provides enhanced thermal and moisture management for metal roofing applications. The non-perforated foil facing acts as an effective vapor barrier, when taped and detailed correctly the product will prevent the passage of moisture into the insulation, thereby reducing the risk of condensation. This feature helps to maintain optimal indoor comfort by controlling both heat transfer and moisture infiltration. Earthwool is made using up to 80% recycled glass and with ECOSE® Technology, a sustainable, bio-based binder that contains no added formaldehyde.

Knauf Insulation GMW Faced Performance

Thermal (ASTM C518-21)	MS 1020:2022		
Fire Hazard Properties (ASTM E84)*	Spread of Flame: 0, Smoke Developed: 0		
MATERIAL PROPERTY	RESULT	REQUIREMENT PER ASTM C665-17	PASS / FAIL
Water Vapor Sorption (Mass %) (ASTM C1104)*	3	≤5	Pass
Corrosiveness - Aluminium (rating scale 15-40) (ASTM C665)*	40	>21	Pass
Corrosiveness - Copper (rating scale 15-40) (ASTM C665)*	40	>21	Pass
Corrosiveness - Steel (ASTM C1617)*	≤5 ppm	≤5 ppm	Pass
Fungi Resistance (ASTM C1338)*	No growth	Growth ≤ Comparative	Pass
Fire propagation (BS 476)	Part 6		Pass
Surface spread of flame (BS 476)	Part 7		Pass

*product testing based on product density of 32kg/m³

Certifications



KNAUFINSULATION



Please scan the QR Code to view the complete list of certifications on our website.

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Benefits

- ✓ High level of sound reduction
 - Effectively minimizes noise from rain and other unwanted sounds
- ✓ High thermal performance
 - Equivalent to or better than rock mineral wool with half the weight, lowering embodied carbon, environmental impact, and costs
- ✓ Material Health
 - No added formaldehyde or phenol
 - Red List Free certified, free from harmful chemicals
- ✓ TwinTech® - smooth finish on both sides
- ✓ DriTherm® Technology, silicone treated
 - Water ingress resistance
 - Humidity and water vapour protection
- ✓ Saves energy - lower energy bills
- ✓ Non-combustible
- ✓ Odourless
- ✓ Naturally brown - no artificial colours added
- ✓ Superior handling
 - Consistent quality materials, cut easily and installs fast
 - Highly resilient insulation recovers quickly to full thickness
- ✓ Compression packed - more product per pack, less storage needed, reduce carbon footprint
- ✓ Class 1 Vapour Barrier (ASTM E96)

Specifications

Knauf Insulation GMW Faced

Product Code	Density (kg/m ³)	Thickness (mm)	Thermal Conductivity* ^① (W/mK)	R-Value ^① (m ² K/W)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
868904	16	50	0.0354	1.41	1,200	13,000	15.6	1
868906	20	50	0.0344	1.45	1,200	10,500	12.6	1
868908	24	50	0.0332	1.50	1,200	9,000	10.8	1

^① In accordance with Clause 4.2.1 (b) of Malaysian standard MS1020 (Thermal insulation products for buildings - factory made mineral wool products), thermal resistance and thermal conductivity values shall be expressed with three significant figures.

* Thermal conductivity 20°C λ Value (W/mK)

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Additional Information

Specification Guide

The insulation shall be Earthwool Metal Roofing Roll (Foil Facing) * _____ kg/m³, * _____ mm thick, MS 1020:2022 compliant product. The product will be non-combustible, contain no ozone-depleting substances or greenhouse gases, glasswool insulation with high post-consumer recycled glass content and with ECOSE® Technology. It will be manufactured under Quality Assurance Standards ISO 9001, ISO14001, ISO45001 and ISO50001 by Knauf Insulation Sdn. Bhd. and shall be installed in accordance with the instructions issued by them.

*architect to insert details of products used.

Fire Safety

Tested in accordance with B.S. 476: Part 6 Fire propagation, B.S. 476: Part 7 Surface spread of flame and Bomba Class '0'.

Bio-solubility

The formulation used for Earthwool glasswool insulation has been independently assessed and certified by EUCEB to demonstrate bio-solubility. All products manufactured by Knauf Insulation are made of non-classified fibres (fibres that are less bio-persistent than every day dust) and are certified by EUCEB. EUCEB is a voluntary initiative which provides independent certification that guarantees that products are made of fibres which comply with the exoneration criteria for carcinogenicity (Note Q) of the Regulation (EC) 1272/2008. To help user's identify the safety of our Glasswool fibres the EUCEB logo is displayed on our product packaging and/ or labels.

Environmental

Earthwool Metal Roofing Roll represents no known threat to the environment and benefits from ECOSE® Technology.

Proven Performance

Earthwool Metal Roofing Roll has excellent acoustical properties reduce sound transmission in the building when properly installed.

Durability

Earthwool Metal Roofing Roll is odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials, feel smooth, easy to cut and install.
- Low dust for easier handling and increased productivity.

Convenient Packaging, Easier Handling

- Earthwool Metal Roofing Roll is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- Earthwool Metal Roofing Roll packages feature easy to follow installation instructions.
- MasterBag insulation units (containing multiple packs) ensure reduced handling costs with improved compression – more square metres per bag, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.

Superior Service and Support

- Knauf Insulation is totally focused on providing first class customer service, producing high quality product and 'on time in full' deliveries.
- Knauf Insulation supports a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.



Earthwool® products made with ECOSE® Technology benefit from a no added formaldehyde binder, which is less energy intensive than traditional binders and is based on rapidly renewable, plant-based materials instead of petro-based chemicals. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Earthwool® products made with ECOSE® Technology contain no added dyes or artificial colours.

Knauf Insulation Sdn Bhd

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