

## KNAUF INSULATION METAL ROOFING ROLL (UNFACED)

October 2024

### Application

Commercial & Industrial



**Knauf Insulation Metal Roofing Roll (Unfaced) with ECOSE® Technology** is a specialist metal roofing and metal wall cladding insulation designed for use in commercial and industrial buildings. It is made with super-soft glasswool insulation which will improve the thermal comfort and energy efficiency of the building in which it has been installed thus keeping it cool in summer and warm in winter.

### Description

Knauf Insulation 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. Knauf Insulation Metal Roofing Rolls are manufactured at 1200mm wide to suit commonly used rail and bracket systems designed for use in twin skin profiled metal cladding systems and standing seam roofs.



## KNAUF INSULATION GMW UNFACED 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				
Non-combustibility (BS 476)	Part 4		Pass				
Fire propagation (BS 476)	Part 6		Pass				
Surface spread of flame (BS 476)	Part 7		Pass				
Noise Reduction Coefficient (NRC)	Frequency (Hz)					NRC	
	125	250	500	1000	2000		4000
for 16kg/m <sup>3</sup> density (50mm thickness)	0.24	0.65	0.92	0.94	0.96	0.97	0.85
for 20kg/m <sup>3</sup> density (50mm thickness)	0.24	0.66	0.94	0.97	0.98	0.97	0.90

\*product testing based on product density of 8kg/m<sup>3</sup>

### CERTIFICATION



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

### SPECIFICATIONS

#### Knauf Insulation GMW Unfaced

Product Code	Density (kg/m <sup>3</sup> )	Thickness (mm)	Thermal Conductivity* ① (W/mK)	R-Value ① (m <sup>2</sup> K/W)	Width (mm)	Length (mm)	Area per pack (m <sup>2</sup> )	Pieces per pack
853940	16	50	0.0354	1.41	1,200	15,000	18.0	1
851107	20	50	0.0344	1.45	1,200	11,500	13.8	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 Knauf Insulation Metal Roofing Roll (Unfaced) \* \_\_\_\_\_ kg/m<sup>3</sup>, \* \_\_\_\_\_ mm thick, MS 1020:2022 compliant product. The product will be non-combustible, Red List Free as labelled by Declare, Global GreenTag GreenRate Level A certified, 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, BOMBA Class 'O' and B.S. 476: Part 4 Non-combustibility.

#### Bio-solubility

The formulation used for Knauf Insulation glasswool 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.

#### Material Health

Knauf Insulation glasswool is free of hazardous ingredients and certified as Red List Free. The Living Building Challenge (LBC) Red List represents the "worst in class" materials, chemicals, and elements known to pose risks to human health. To earn the Red List Free designation, a product must fully disclose its ingredients, ensuring that none of them contain Red List chemicals. Products bearing the Red List Free label demonstrate adherence to the LBC's objectives of promoting ingredient transparency and the removal of Red List chemicals throughout the industry.

#### Environmental

Knauf Insulation Metal Roofing Roll (Unfaced) represents no known threat to the environment and comes with GreenTag GreenRate Level A

certification, Declare label and a certified Environmental Product Declaration. Knauf Insulation Metal Roofing Roll (Unfaced) has low VOCs and benefits from ECOSE® Technology. Eurofins Indoor Air Comfort (Gold) certification provides assurance that a product fulfills low product emissions requirements. Gold level certified products are those with the best-in-class low emissions, and therefore good for indoor air quality.

#### Proven Performance

- Knauf Insulation Metal Roofing Roll (Unfaced) is preferred by professional installers concerned with quality, appearance and productivity.
- Knauf Insulation Metal Roofing Roll (Unfaced) has excellent acoustical properties reduce sound transmission in the building when properly installed.

#### Durability

- Knauf Insulation Metal Roofing Roll (Unfaced) 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

- Knauf Insulation Metal Roofing Roll (Unfaced) is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- Knauf Insulation Metal Roofing Roll (Unfaced) 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.



Knauf Insulation 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. Knauf Insulation products made with ECOSE® Technology contain no added dyes or artificial colours.

**Knauf Insulation Sdn Bhd** Company registration no: 201401006359 (1082442-W)

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