

KNAUF INSULATION EXTERNAL DUCT ROLL (UNFACED)

October 2024



Application



Knauf Insulation External Duct Roll (Unfaced) with ECOSE® Technology is used as external insulation on commercial or residential heating or air conditioning ducts. It is suitable for the exterior of rectangular or round sheet metal ducts and spaces or surfaces where temperature and condensation must be controlled.

Description

The super-soft and easy to handle benefits of Knauf Insulation External Duct Roll (Unfaced) have been further enhanced with TwinTech®. TwinTech® heralds another advancement insulation manufacture - the dual forming technique ensures there is a smooth finish on both sides of the insulation, which improves product handling and appearance. Knauf Insulation External Duct Roll (unfaced) 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 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)						
	125	250	500	1000	2000	4000	
for 24kg/m ³ density (50mm thickness)	0.24	0.67	0.97	1.00	0.99	0.97	0.90
for 32kg/m ³ density (25mm thickness)	0.07	0.23	0.62	0.76	0.88	0.94	0.6
for 32kg/m ³ density (50mm thickness)	0.25	0.71	1.03	1.04	1.00	0.97	0.95

*product testing based on product density of 8kg/m³

CERTIFICATION



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

For more information regarding our certifications please visit www.knaufinsulation.sg/certification

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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 ³)	Thickness (mm)	Thermal Conductivity* (W/mK)	R-Value (m ² K/W)	Width (mm)	Length (mm)	Area per pack (m ²)	Pieces per pack
826677	24	50	0.0332	1.50	1,200	10,000	12.0	1
826673	32	25	0.0326	0.76	1,200	15,000	18.0	1
826675	32	50	0.0326	1.53	1,200	7,500	9.0	1

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

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ADDITIONAL INFORMATION

Specification Guide

The insulation shall be Knauf Insulation External Duct Roll (Unfaced) * _____ kg/m³, * _____ 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 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 External Duct 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 External Duct 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.

Durability

- Knauf Insulation External Duct Roll (Unfaced) is odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission.

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

Preparation

- Install Knauf Insulation External Duct Roll (Unfaced) over clean, dry sheet metal ducts.
- All sheet metal joints and seams must be sealed to prevent air leakage from the duct.



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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