



PRODUCT DESCRIPTION

Supafil® CarbonPlus is a glass mineral blowing wool, developed for retrofit application in narrow (40mm-75mm) external masonry cavity walls. It offers thermal conductivity of 0.034 W/mK at the installed density of 25kg/m³.

It is non-combustible with the best possible Euroclass A1 reaction to fire classification.

APPLICATIONS



External masonry cavity walls
Blown-In (Retrofit)

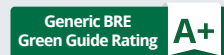


BENEFITS

- Holds an Agrément certificate by the BBA for use in all exposure zones, including those in very severe areas subject to certificate requirements.
- Suitable for use in narrow cavities of 40-75* mm.
- Made with a water-repellent additive to resist moisture ingress.
- Installed by 'Approved Supafil® Installers', using specific blowing machines, hoses and nozzles as part of a system.

* When treating cavities wider than 75mm please contact our Technical Services Team to review and assess the suitability for installation with the approved installer prior to works commencing on site.

CERTIFICATION





NON-COMBUSTIBLE
INSULATION



PERFORMANCE

THERMAL (W/mK)

0.032	0.034		0.044
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FIRE CLASSIFICATION

A1	A2 s1, d0	B	C
D	E	F	

Euroclass reaction to fire classification

GENERIC BRE GREEN GUIDE RATING

A+	A	B	C
D	E		

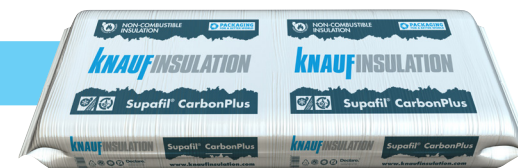
VAPOUR RESISTIVITY

5.00 MNs/g.m

SUPAFIL® CARBONPLUS

Weight per bag (kg)	Installed density (kg/m³)	Thermal conductivity (W/mK)	Settlement	Product code
15.5	25	0.034	S1	409307

All dimensions are nominal.
Available via approved contractors.



FOR FULLY FILLED MASONRY CAVITY WALLS - EXISTING - USING SUPAFIL® CARBONPLUS (Brick outer leaf / cavity / 100mm inner leaf as detailed below)

Cavity width (mm)	U-value (W/m²K)			
	Brick (0.56 W/mK)	Block (1.13 W/mK)	Block (0.51 W/mK)	Block (0.34 W/mK)
75	0.35	0.36	0.35	0.34
65	0.39	0.40	0.39	0.37
50	0.47	0.49	0.46	0.45

Note: The U-values have been calculated assuming that all walls are lined with 12.5mm standard plasterboard on dabs on standard blocks with 10mm mortar joints. Wall ties assumed to be stainless steel at 2.5 per m² with a cross-sectional area of 100mm - 12.5mm², >100 - 150mm - 24mm², >150mm - 60mm². Air gap correction level is zero.

Application

Supafil® CarbonPlus is designed for insulating existing external masonry cavity walls, which can be deemed hard-to-treat due to their narrow cavity width. It can also be used for filling residual cavities in existing partially-filled masonry cavity walls.

In both applications Supafil® CarbonPlus is suitable for cavity widths not less than 40mm. When treating cavities wider than 75mm, please contact our Technical Services Team to review and assess the suitability for installation with the approved installer prior to works commencing on site.

Supafil® CarbonPlus can only be used as part of a system using specific blowing machines, hoses and nozzles. A specified drill pattern (which creates the injection points ensuring an even fill) must be followed.

Supafil® CarbonPlus is formed in-situ and thus has the advantage that it precisely and quickly fills the masonry cavity meaning that the intended thermal performance of the insulated structure will be achieved and not diminished by excess heat loss through imperfect fit.

Supafil® CarbonPlus can be installed in any exposure zone subject to conditions outlined in the Agrément certificate by the BBA.

Standards and certification

Supafil® CarbonPlus has an Agrément certificate by the BBA under the reference number 13/4969 for use in external masonry walls up to and including 12m in height, with cavity widths not less than 40mm, in existing domestic and non-domestic buildings. The product may also be used in buildings over 12m in height where a height restriction waiver has been issued by the Certificate holder.

Supafil® CarbonPlus has a product declaration made in conformity with the requirements of BS EN 14064 and is manufactured in accordance with ISO 50001 Energy Management Systems, ISO 14001 Environmental Management Systems, ISO 45001 Occupational Health and Safety Management Systems and ISO 9001 Quality Management Systems.

All of our mineral wool products are made of non-classified fibres and are certified by EUCEB. EUCEB (European Certification Board of Mineral Wool Products - www.euceb.org) is a voluntary initiative by the mineral wool industry. It is an independent certification authority that guarantees that products are made of fibres which comply with the exoneration criteria for carcinogenicity (Note Q) of the Regulation (EC) 1272/2008.

Thermal Modelling

The U-value of a proprietary built element (rainscreen façade/ masonry cavity wall/garage soffit etc.) or system is dependent on the material properties and the degree of thermal bridging in the system. Calculations should be created using 2D or 3D modelling programs which comply with the methodologies detailed in BS EN ISO 6946 or BS EN ISO 10211 and using guidance from BR443.

We offer simplified calculations to BS EN ISO 6946 and where required numerically modelled U-value calculations using software that is compliant with BS EN ISO 10211.

System Testing

Knauf Insulation maintains declared product characteristics and qualities which are defined in detail in its Declaration of Performances (DoPs) and product literature. The product literature also includes information relating to Knauf Insulation's requirements and recommendations for installation of its products when being used as part of a system.

Any party using, or planning to use, our products in a system (with or without system testing) where performance may be dependent on product characteristics not declared on our DoPs or our product literature, must contact our Technical Services Team.

Knauf Insulation will not accept liability for any failure in system performance due to product characteristics not declared on DoPs or product literature, or not agreed in a Service Level Agreement. In such an event, any warranty given in relation to those products will be invalidated.

Real Performance

Glass and rock mineral wool are easier to install correctly than other insulants, such as rigid boards, because they adapt to any slight imperfections in the substrate and knit together, eliminating any air gaps. Mineral wool is engineered to adapt to any imperfections, and any settlement/movement over time, so it maintains close contact and preserves thermal performance for the life of the building.

Evidence shows the absence of air gaps is crucial to achieving real performance in the relevant application. Any insulation material that doesn't deliver 'as-built' thermal performance is failing in its primary purpose, and therefore presents an unnecessary risk as the construction industry seeks to close the performance gap.

Moisture Resistance

Supafil® CarbonPlus is manufactured with a water-repellent additive, meaning that the physical and chemical characteristics of the fibres are unaltered by wetting. Therefore, the thermal properties of Supafil® CarbonPlus are not affected by exposure to moisture and the product will perform as expected once dry and undamaged.

Tests by the British Board of Agreement confirm that Supafil® CarbonPlus will not transmit water to the inner leaf. Nor will it transmit moisture by capillary action across the cavity of from below damp proof course level. This has been confirmed by independent research conducted for the Energy Saving Trust, which shows that cavity wall insulation does not add to the risk of water penetration.

Durability

Supafil® CarbonPlus is odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria. The product will have a life equivalent to that of the wall structure in which it is incorporated.

Sustainability

Supafil® CarbonPlus is a virgin glass mineral blowing wool which generates low levels of dust and VOCs and which has been awarded the Eurofins GOLD Certificate for 'Indoor Air Comfort'.

All our mineral wool products have been awarded the DECLARE 'Red List Free' label. The Declare label is a third-party accreditation and is similar to a food nutrition label but for building products; it is a straightforward ingredient list and allows product transparency disclosure because it identifies where a product comes from and what it is made of. Declare 'Red List Free' certifies that there is no harmful chemical from the red list in our products.

Our glass mineral wool is made with up to 80% recycled content (incl. glass from windows, bottles and jars).

Supafil® CarbonPlus contains no ozone-depleting substances or greenhouse gases. The overall environmental performance of our products is reported in their EPDs (Environmental Product Declarations) which are available on our website. EPDs are available for all our products in accordance with ISO 14025, ISO 21930 and EN 15804+A2. We have received the BES6001 'Very Good' rating for all our mineral wool in our three plants, which proves that our products are made with constituent materials that are responsibly sourced.

Our 3-tier industry-leading compression-packaging technology allows us to load more product per pack or pallet, and therefore onto each truck that leaves our factories. This means less packaging used per m² of insulation, fewer vehicles on our roads, so less associated CO₂ emissions. It also means less transport, handling and storage space required for our customers.

Our individual products and the pallets they sit on are wrapped in low-density polyethylene (LDPE4) plastic, which is made of 30-50% (depending on the supplier) recycled plastic content and is fully recyclable.

Handling and Storage

Supafil® CarbonPlus should be stored properly and handled in such a way as to ensure that the product remains clean and undamaged.

The polyethylene packs / shrink-wrapped pallets used for the supply of Supafil® CarbonPlus are designed for short-term protection only. For longer term protection on site, the product should either be stored indoors or under cover and off the ground. Supafil® CarbonPlus should not be left permanently exposed to the elements.

If the main hood is removed or damaged, the remaining packs should be kept under cover indoors or protected from the elements by a weatherproof cover. In coastal locations where weather is more extreme and bird damage is more common, use additional covering or store indoors.

The product must be protected from prolonged exposure to sunlight and stored dry. If damaged, the product should be discarded. Damaged, contaminated or wet products must not be used.

Knauf Insulation Ltd

PO Box 10, Stafford Road, St.Helens, Merseyside, WA10 3NS UK **Customer Service:** 01744 766 766

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