




LEED version 4.1.

PRODUCT DATA FOR CERTIFICATION

SUPAFIL BLOWING WOOL

LEEDv4.1 (Leadership in Energy and Environmental Design) is a voluntary standard that defines high performance green buildings which are healthier, more environmentally responsible, and more profitable structures. Credits for certification can be earned in various categories, each with a unique focus on sustainable design: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation and design process.

KNAUF INSULATION products can put you on the right track for the highest result into the certification!

LEED - Credit Category code	Definition	Knauf Insulation Products contribution	Contributes towards
Energy and Atmosphere (EA) Optimize Energy Performance 	To achieve increasing levels of performance beyond the prerequisite standard to reduce environmental and economic harms associated with excessive energy use.	SUPAFIL products help reducing energy demand through very high insulation efficiency (building envelop, partition walls, floors and ceilings).	18 points
Materials and Resources (MR) Building Product Disclosure and Optimization – Environmental Product Declarations 	To encourage the use of products where Life Cycle Assessment (LCA) is available and have environmentally, economically and socially preferable LCA. To reward project including products with verified LCA.	Third party verified Environmental Product Declarations (EN 1580-EPDs) are available online for SUPAFIL products ¹ . 	2 points
Materials and Resources (MR) Building Product Disclosure and Optimization – Sourcing of Raw Materials 	To encourage the use of products where LCA is available and have environmentally, economically and socially preferable LCA. To reward project including products verified to be extracted or sourced in a responsible manner.	SUPAFIL Products are manufactured with up to 80% of recycled content (pre-consumer and post-consumer waste) ² .	1 point






¹ https://www.knaufinsulation.com/download-epd-glass-mineral-wool?environmental_product_declaration%5B1%5D=69&page=2; <https://ibu-epd.com/>; <https://www.inies.fr>; <https://www.environdec.com/EPD-Search/?query=knauf>

² See annex 1

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LEED - Credit Category code	Definition	Knauf Insulation Products contribution	Contributes towards
Materials and Resources (MR) Building Product Disclosure and Optimization – Material Ingredients	To encourage the use of products where LCA is available and have environmentally, economically, and socially preferable LCA. To reward project for which the products chemical ingredients are inventoried.	SUPAFIL products contains no ingredients listed on the REACH Authorization list, Restriction list or Substances of Very High Concern Candidate list ³ . They are inventoried to at least 0.01% by weight (100ppm) and certified DECLARE LBC Red List Free which means no harmful chemical substances ⁴ <div>   </div>	1 point
Indoor Environmental Quality (EQ) Low-Emitting Materials 	To reduce concentrations of chemical contaminants, as Volatile Organic Compound (VOC) that can damage air quality, human health, productivity and the environment. Emissions from ceilings, walls, thermal, and acoustic insulation are a complete category to be assessed.	SUPAFIL products are compliant with the German AgBB Testing and Evaluation Scheme and the higher category (A+) of the French labelling. The binder is without added phenol formaldehyde. Products with or without facing are certified for Indoor Air Comfort ⁵ Eurofins Gold and Blue Angel ⁶ . <div>   </div>	3 points
Indoor Environmental Quality (EQ) Acoustic Performance	To provide spaces that promote occupants' well-being, productivity and communication through effective acoustic design.	SUPAFIL products have high performance acoustic properties. Products increase sound insulation of building envelope, partitions, ceilings and aid in controlling reverberation time. ⁷	1 point

³ Compliance letter statement to REACH can be requested for dedicated product's manufacturing plants

⁴ For DECLARE labels, see annex 2

⁵ www.product-testing.eurofins.com and certificate in annex 3

⁶ <https://www.blauer-engel.de/en/s/knauf> and certificate in annex 3

⁷ Acoustic test examples, see annexe 4

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LEED - Credit Category code	Definition	Knauf Insulation Products contribution	Contributes towards
Indoor Environmental Quality (EQ) Thermal Comfort	To promote occupants productivity, comfort, and well-being by providing quality thermal comfort.	Insulation is a design alternative strategy. Heat radiation and air-conditioning will be minimized which will have positive comfortability feel and increase productivity for workers.	1 point

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Annex 1: Materials and Resources: Sourcing of Raw Materials

Here below additional detailed information⁸ about pre-consumer waste (reintroduction of manufacturing scrap into another manufacturing process) and post-consumer waste (produced by the end consumer) utilized in the raw materials batch for the manufacturing of the Supafil mineral wool.

In LEED, total recycled content is the sum of 100% post-consumer recycled content plus 50% of the pre-consumer recycled content.

	Visé (B)	Lannemezan (Fr)	Cwmbran (UK)	St Helens (UK)
%pre-consumer waste content	9.4%	4.9%	10%	0%
% post-consumer waste content	58.7%	64.5%	51.2%	69.5%
Total recycled content (100% pre-consumer+50% post-consumer)	63.4%	67%	56.2%	69.5%
LEED MR 4	contributes towards 2 points			

Recycled content claims must conform to the definition ISO 14021-1999.

Pre-consumer waste: waste comes from process waste that is used to make a different product. This definition does not include in-house industrial scrap or trimmings, which are normally fed back into the same manufacturing process.

Post-consumer waste: waste which comes from curbside recycling programs (glass, plastic, paper, ect). Other postconsumer feedstock is generated when construction and demolition debris is recycled. To be a feedstock, the raw materials must have served a useful purpose in the consumer market before being used again.


⁸ Data 2020

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Annex 2: DECLARE labels.



SUPAFIL®
(Loft,Thermoloft,Optiloft,Cavity,Timber
Frame, Max Frame,CarbonPlus&Spray
Blowing Wool)
Knauf Insulation

Final Assembly: Multiple Locations in Europe
Life Expectancy: Life of structure Year(s)
End of Life Options: Salvageable/Reusable in its Entirety,
Landfill (100%)

Ingredients:

Glass mineral wool: EC: 926-099-9 Man-Made Vitreous (silicate)
Fibers; **Silicone:** Siloxanes and Silicones, Me-H; **Dust Oil:**
Distillates (petroleum), solvent-dewaxed light paraffinic;
Antistatic Agent: Quaternary ammonium compounds, alkyl
phosphate potassium salt, Et sulfates


Living Building Challenge Criteria: Compliant

I-13 Red List:
☒ LBC Red List Free % Disclosed: 100% at 100ppm
☐ LBC Red List Approved VOC Content: Not Applicable
☐ Declared

I-10 Interior Performance: AgBB Scheme French A+ 2011
I-14 Responsible Sourcing: Not Applicable

KNF-0040
EXP. 01 NOV 2021
Original Issue Date: 2020

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SUPAFIL® PARTY WALL
Knauf Insulation

Final Assembly: Cwmbran, United Kingdom; St Helens, United
Kingdom
Life Expectancy: Life of structure Year(s)
End of Life Options: Salvageable/Reusable in its Entirety,
Landfill

Ingredients:

Glass mineral wool: EC: 926-099-9 Man-Made Vitreous (silicate)
Fibers; **Silicone:** Siloxanes and Silicones, Me-H; **Dust Oil:**
Distillates (petroleum), solvent-dewaxed light paraffinic;
Antistatic Agent: Quaternary ammonium compounds, alkyl
phosphate potassium salt, Et sulfates; **Pigment:** Copper (II)
phthalocyanine

Living Building Challenge Criteria: Compliant

I-13 Red List:
☒ LBC Red List Free % Disclosed: 100% at 100ppm
☐ LBC Red List Approved VOC Content: Not Applicable
☐ Declared

I-10 Interior Performance: AgBB Scheme French A+ 2011
I-14 Responsible Sourcing: Not Applicable

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Annex 3: Indoor Environmental Quality - Low-Emitting Materials

Here below the Eurofins Indoor Air Comfort Gold Certificate for Blowing products:



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Appendix to Certificate

IACG-323-01-33-2017

Knauf Insulation

receives the Indoor Air Comfort Gold certificate with validity 19 June 2022 for below product group, including subgroups and individual products listed in the following table:

Product group	Production site
Knauf Insulation Virgin Blowing Wool and Supafill	Cwmbran, United Kingdom Lannemezan, France St Helens, United Kingdom Vise, Belgium

The products in this group are based on identical or similar recipe and are produced under equivalent conditions. Grouping of the products and inspection of the production process is part of the Indoor Air Comfort Gold certification. A worst-case product, which is representative for the whole group, is being tested frequently.

 **eurofins** | **Product Testing**

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Here below the Blue Engel Certificate for low-emission materials for Supafil products:



Supafil

Category : Low-Emission Thermal Insulation Material and Suspended Ceilings for Use in Buildings (until 12/2020) (DE-UZ 132)

Website : <https://www.blauer-engel.de/en/products/construction-heating/thermal-insulation-material-indoor-until-12-2020/supafil>

Currently there are no detailed product information provided by company.

Benefits to Environment and Health

1. low emissions
2. low pollutant content
3. no adverse impact on health in the living environment

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Annex 4: Indoor Environmental Quality – Sound Reduction Index Example for Supafil

STC_c in USA is composite *Sound Transmissions Class* and is equivalent to *R_w Sound Reduction Index* in Europe. α coefficient is the coefficient for *sound absorption*.

System Timber Frame Wall
▶

1 Empty cavity

- 1 External Sheathing - OSB panel 15 mm
- 2 Wood studs - height 180 mm
centre-to-centre distance 600 mm
- 3 Empty cavity - 180 mm
- 4 Vapor Control Layer
- 5 6 Secondary wood structure - 2x27 mm
- 7 Standard Type A Gypsum board -
2x12,5 mm

Total thickness of the wall : 274 mm

Sound Reduction Index :
R_w 44 (-2 ; -8)

2 Blowing Wool (Supafil)

Test report
n° 2013/6284

- 1 External Sheathing - OSB panel 15 mm
- 2 Wood studs - height 180 mm
centre-to-centre distance 600 mm
- 3 Blowing wool - Supafil Timber Frame -
density 35 kg/m³ - 180 mm
- 4 Vapor Control Layer
- 5 6 Secondary wood structure - 2x27 mm
- 7 Standard Type A Gypsum board -
2x12,5 mm

Total thickness of the wall : 274 mm

Sound Reduction Index :
R_w 48 (-4 ; -10)

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