May 2018

BREEAM INTERNATIONAL NEW CONSTRUCTION 2016

PRODUCT DATA FOR CERTIFICATION

SUPAFIL BLOWING WOOL

BREEAM (Building Research Establishment Environmental Assessment Methodology) INTERNATIONAL NEW CONSTRUCTION 2016[1] is a voluntary standard that defines high performance green buildings which are healthier, more environmentally responsible and more profitable structures. Using independent assessors, BREEAM examines criteria covering a range of issues in sections that evaluate: management processes, health and wellbeing, energy, transport, water, materials, waste, land use and ecology, pollution and innovation.

KNAUF INSULATION products can put you on the right track to get the highest result for BREEAM certification.

BREEAM - Credit Category code	Assessment Criteria and Definition	Knauf Insulation Products contribution	Contributes towards
Hea 02 Indoor air quality	Emissions from building products: the insulation materials are one of the 5 product types that needs to meet the emission limits. The following requirements are of application for insulation products: Formaldehyde ≤ 0.06 mg/m³; Total Volatile Organic Compounds ≤1.0 mg/m³; Carcinogens category 1A and B ≤ 0.001 mg/m³	SUPAFIL Blowing Wool products are in compliance with the requirements as without any added formaldehyde and certified Blue Angel and Eurofins Gold[2] for Indoor Air Comfort, see annexe 1.	**1 credit**
	Emissions from building products: the insulation materials are one of the 5 product types that could meet the emission limits for **exemplary level** emission criteria. The following requirements are of application: Formaldehyde ≤ 0.01 mg/m³; Total Volatile Organic Compounds ≤0.3 mg/m³; Total Semi-volatile Organic Compounds ≤0.1 mg/m³; Carcinogens category 1A and B ≤ 0.001 mg/m³	SUPAFIL Blowing Wool products are in compliance with the requirements for exemplary level as without any added formaldehyde and certified Eurofins Gold for Indoor Air Comfort, see annexe 1.	**1 credit exemplary level**
	Post-construction indoor air quality measurement: the total volatile organic compound and formaldehyde are measured and reported (thresholds for averaged formaldehyde concentration level ≤ 100µg/m³ over 30 minutes and for averaged TVOC≤ 300µg/m³ over 8 hours).	SUPAFIL Blowing Wool products without any added formaldehyde and certified Eurofins Gold for Indoor Air Comfort are helping to stay at a very low concentration level.	**1 credit**
Hea 04 Thermal comfort	To ensure that appropriate thermal comfort levels are achieved through design, and controls are selected to maintain a thermally comfortable environment for occupants	Through the insulation level, insulation products contribute to the comfort level (heating and cooling) in accordance to ISO 7730:2005. Thermal modelling can be facilitated through products Building Information Modelling (BIM) files [3].	**1 credit**

[1] Technical manual : SD233 – 1.0:2016
[2] www.product-testing.eurofins.com
[3] https://www.knaufinsulation.com/BIM

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BREEAM - Credit Category code	Assessment Criteria and Definition	Knauf Insulation Products contribution	Contributes towards
Hea 05 Acoustic performance	To insure the building's acoustic performance, including sound insulation, meets the appropriate standards for its purpose	Products performance aims to reduce indoor ambient noise level and reverberation times in order to comply with regulations or good practices standards.	**1 credit**
Ene 01 Reduction of energy use and carbon emissions	To recognize and encourage buildings designed to minimise operational energy demand, primary energy consumption and CO2 emissions.	SUPAFIL Blowing Wool products help reducing the 3 parameters: operational energy demand, primary energy consumption and CO2 emissions through the improving of energy building performance (e.g. Uvalue) in accordance with EPBD best practices and ASHRAE standard 90.1-2013 or 90.2-2007 (as applicable).	**15 credit**
ENE 04 Low carbon design	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	SUPAFIL Blowing Wool products contribute to implement passive design solutions that reduce building energy demand and associated carbon emissions.	**1 credit**
Ene 05 Energy efficiency cold storage	Energy efficient design, installation and commissioning: To encourage the installation of energy efficient refrigeration systems, therefore reducing operational greenhouse gas emissions. The building has been designed to minimize heat loads through high levels of insulation.	SUPAFIL Blowing Wool products can contribute to high insulation efficiency in the design options.	**1 credit**
Mat 01 Life cycle impacts	To encourage the use of robust and appropriate life cycle assessment tools and specification of construction materials with a low environmental impact over the full life cycle of the building	The Environmental Products Declarations[4] (EPDs) are available and 3rd party verified against EN 15804, this allows to maximise points through Mat 01 calculator and contribute to reach the target of 5 products (10 products for exemplary level) with EPDs for additional points (with confirmation of use on the construction site at Post-Construction Stage)	**1 credit + 1 credit exemplary level**
Mat 03	To recognize and encourage the specification	Products comply with RSC as they	**3 credit**

[4] https://www.knaufinsulation.com/downloads/environmental-product-declaration-epd/blowing-wool-bw
https://ibu-epd.com/
http://www.base-inies.fr

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BREEAM - Credit Category code	Assessment Criteria and Definition	Knauf Insulation Products contribution	Contributes towards
Responsible sourcing of construction products	and procurement of responsibly sourced construction (RSC) products. Insulation Products with more than 50% recycled content (BREEAM Guidance note18.v3.1 – 2018).	have minimum 50% and up to 80% recycled content (external cullet), see annexe 2. The key process is also covered by EMS (ISO 14001) which allows meeting the criterion of responsible sourced construction (RSC) products.	
Wst 01 Construction waste management	To promote resource efficiency via the effective and appropriate management of construction waste.	Packaging's (wood and plastics) and products itself are recyclable. Mineral wool waste can be reused or recycled no matter the age or type.	**3 credit**
Pol 05 Noise attenuation	To reduce the likelihood of noise, arising from fixed installations on the new development, affecting nearby noise-sensitive buildings.	Attenuation of noise by use of insulation mineral wool absorbers.	**1 credit**

BREEAM INTERNATIONAL NEW CONSTRUCTION 2016

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SUPAFIL BLOWING WOOL

Annexe 1: Hea 02 : Indoor Air Quality

Here below the Eurofins Indoor Air Comfort Gold Certificate:



INDOOR AIR COMFORT
eurofins
GOLD
CERTIFIED PRODUCT

Certificate

Indoor Air Comfort Gold

Knauf Insulation Virgin Blowing Wool and Supafil

Certified Product

Knauf Insulation

Applicant

The product complies with Indoor Air Comfort Gold requirements for product type, version 6.0 (2017). These include both inspections of factory production according to DIN 18200 and VOC testing according to CEN/TS 16516 and the ISO 16000 series, each in the latest versions, by an ISO 17025 accredited laboratory, at regular interval.

Indoor Air Comfort Gold certification ensures that low product emission requirements are fulfilled and is a sign of the applicant's focus on quality and contribution to a healthy indoor environment.

Details are defined in Indoor Air Comfort Gold requirements, version 6.0 (2017).

Certificate No.: IACG-323-01-33-2017
Date: 19 June 2017
Validity of certificate: 19 June 2022, with frequent surveillance and retesting.

Compliance with Indoor Air Comfort Gold means compliance with VOC requirements on low emitting products of:

Belgium regulation, France VOC class A+, Germany (AgBB/ABG), BREEAM international, BREEAM NOR, LEED outside North America, Italian regulation on GPP (Green Public Procurement), DGNB, BVB (Sweden), Blue Angel RAL UZ 132, M1.

Thomas Neuhaus
Head of Certification Body

eurofins | Product Testing

May 2018

BREEAM INTERNATIONAL NEW CONSTRUCTION 2016

PRODUCT DATA FOR CERTIFICATION

SUPAFIL BLOWING WOOL



INDOOR AIR COMFORT
eurofins
GOLD
CERTIFIED PRODUCT

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 Supafil	Cwmbran, United Kingdom Lannemezan, France St Helens, United Kingdom Visé, 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

BREEAM INTERNATIONAL NEW CONSTRUCTION 2016

PRODUCT DATA FOR CERTIFICATION

SUPAFIL BLOWING WOOL

Annexe 2: Mat 03 Responsible sourcing of Glass Mineral Wool with ECOSE

Material Category	Key Process	Key Supply Chain Process
Insulation		
Foam Insulation	Insulation manufacture	Main polymer production, e.g. Polystyrene, MDI, Phenolic resin or equivalent
Stone wool, glass & cellular glass made using < 50% recycled input	Product manufacture	Any quarried or mined mineral over 20% of input
Wool	Product manufacture	Wool scouring
Products using > 50% recycled content except those using timber	Product manufacture	Recycled content by default

Here below additional detailed information[5] by production site about yearly average external cullet utilized in the fabrication of the glass mineral wool products.

	Vise (Belgium)	Lannemezan (France)
Total recycled content (external cullet only)	**72,1%**	**53.3%**

On the next page, please find the ISO 14001 certificate for Key Process.

[5] Data 2017

BREEAM INTERNATIONAL NEW CONSTRUCTION 2016

PRODUCT DATA FOR CERTIFICATION

SUPAFIL BLOWING WOOL



BUREAU VERITAS Certification

KNAUF INSULATION SPRL

Rue de Maastricht 95, 4600 Vise, Belgium

This is a multi-site certificate. Additional site details are listed in the appendix to this certificate.

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System standards detailed below.

ISO 14001:2015

Scope of certification

Design, Development and Production of Insulation Materials and Systems.

Certification cycle start date: **23 December 2016**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **22 December 2019**

Original certification date: **23 December 2010**

Certificate no.: **BE010259** Version: **1** Revision date: **15 December 2016**

Signed on behalf of BVCH SAS - UK Branch

Certification body address: *66 Prescot Street, London, E1 8HG, United Kingdom*
Local Office: *Mechelsesteenweg 128-136 – B-2018 – Antwerp , Belgium*

UKAS MANAGEMENT SYSTEMS 008

Further clarifications regarding the scope of this certificate and the applicability of the Management System requirements may be obtained by consulting the organization.
To check this certificate validity, please call **+32 (03) 247 94 00.**

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PRODUCT DATA FOR CERTIFICATION

SUPAFIL BLOWING WOOL



BUREAU VERITAS
Certification

BUREAU VERITAS 1828

Appendix

KNAUF INSULATION SPRL

This certificate concerns below mentioned sites

D-09356 St. Egidien, Bahnhofstrasse 25, Germany
SK-968 14 Nová Baňa, Železničný rad 24, Slovakia
Knauf Insulation doo, 17530 Surdulica, Naselje Belo Polje bb, Serbia
SLO-4220 Skofja Loka, Trata 32, Slovenia
Chemistry Ln, Queensferry, Flintshire, CH5 2DA, United Kingdom
Weststrasse 1, 06406 Bernburg, Saale, Germany
D-84359 Simbachinn, Heraklithstrasse 8, Germany
H-8924 Alsonemesapati (Zalaegerszeg), Ipartelep, Hungary
NL-4903 RM Oosterhout, Florijnstraat 2, Netherlands
Pontyfelin Works, A4051, Croesyceiliog, Cwmbran, NP44 2YQ, United Kingdom
417 42 Krupka, Industrial Park Krupka, Pod Dolni drahou 110, Czech Republic
Stafford Road, St Helens, Merseyside, WA10 3NS, United Kingdom
Industrialnaya St, Estate 2, Stupino, Moscow Region, 142800, Russian Federation
501 Voie Napoleon III 65300 Lannemezan, France
400 East Walker, Shelbyville Plant 1, IN.46176, United States
1 Knauf Dr., Shelbyville Plant 3, IN.46176, United States
3100 Ashby Rd, Shasta Lake, CA 96019, United States
3502 43rd Street SW, AL 36863 Lanett, United States
Kamchatskaya 198, Tyumen 625034, Russian Federation
75. Yil Mahallesi 1 Cadde 1/G, Küçük Organize Sanayi, 26250 Eskişehir, Turkey
1000E North ST, MI 49224 Albion, United States
Knauf Insulation d.o.o. Novi Marof, Varaždinska 140 Croatia
Knauf Insulation Customized Solutions d.o.o, Vipavska 4L, SI-5270, Ajdovščina Slovenia
4812 Tabler Station Rd, Inwood, WV 25428, United States

Certificate no.: **BE010259** Version: **1** Revision date: **15 December 2016**

Signed on behalf of BVCH SAS - UK Branch

Certification body address: *66 Prescot Street, London, E1 8HG, United Kingdom*
Local Office: *Mechelsesteenweg 128-136 – B-2018 – Antwerp , Belgium*

UKAS MANAGEMENT SYSTEMS
008

Further clarifications regarding the scope of this certificate and the applicability of the Management System requirements may be obtained by consulting the organization.
To check this certificate validity, please call **+32 (0)3 247 94 00.**

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