





WELL version 2

Product Data for Building Certification







GLASS MINERAL WOOL WITH ECOSE® TECHNOLOGY

WELL v2 operates on a points-based system. All optimizations have maximum point-values. The point-value of a feature is determined by its potential for impact. This is defined as the extent to which a feature addresses a specific health and wellness concern or opportunity for health promotion, and the potential impact of effective intervention.

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






Feature	Part	Definition	Knauf Insulation Products contribution	Contributes towards
A01. Fundamental Air Quality 	A01.2 Meet thresholds for Organic Gases	To provide acceptable air quality levels as determined by public health authorities.	ECOSE Technology products are compliant with the German AgBB Testing and Evaluation Scheme, the higher category (A+) of the French labelling and the Blue Angel. The binder is without added phenol formaldehyde.	Precondition
A05. Enhanced Air Quality 	A05.2 Meet Enhanced Thresholds for Organic Gases	To go above current guidelines to provide enhanced air quality levels that have been linked to improved human health and performance.	Products with or without facing are certified for Indoor Air Comfort Eurofins Gold ¹ 	1 point
T01. Thermal Performance 	T01.1 Provide acceptable Thermal Environment	To create indoor thermal environments that provide comfortable thermal conditions to the majority of people in support of their health, well-being and productivity.	Glass Mineral Wool products help reducing energy demand through very high insulation efficiency.	Precondition

¹ See annex 1 Indoor Air Confort Gold Eurofins and <https://www.eurofins.com/consumer-product-testing/>

Feature	Part	Definition	Knauf Insulation Products contribution	Contributes towards
S01. Sound Mapping 	S01.1 Label Acoustic zone	To create an acoustical plan that identifies internal and external noise sources that can negatively impact the acoustical environment of interior spaces.	Glass Mineral Wool products have high performance acoustic properties ² . They reduce HVAC background noise, increase sound insulation of building envelope, partitions, ceilings and aid in controlling reverberation time.	Precondition
	S01.2 Provide Acoustic Design Plan			
S02. Maximum Noise Levels 	S02.1 Limit Background Noise Levels	To facilitate comfortable interior noise levels. This feature can operate in tandem with Feature S01: Sound Mapping.		3 points
S03. Sound Barriers 	S03.1/S03.2 Design for Sound Isolation at Walls and Doors & achieve sound insulation at walls	To bolster acoustical privacy between rooms. This feature can operate in tandem with Feature S01: Sound Mapping		3 points
X05. Enhanced Material Restrictions 	X05.2 Select Compliant Architectural and Interior Products	To restrict halogenated flame retardants (HFRs), Per- and polyfluoroalkyl substances (PFAS) and select phthalates commonly used in building materials and products. Insulation products, including thermal and acoustic insulation in walls, ceilings, ducts, tubes and pipes, contain 100 ppm (0.01%) by weight or less of halogenated flame retardants (HFR).	ECOSE Technology products contain no ingredients listed on the REACH Authorization list, Restriction list or Substances of Very High Concern Candidate list. They are inventoried to at least 0.01% by weight (100ppm) and certified DECLARE LBC Red List Free which means no harmful chemical substances ³ .  	2 points

² See annex 2 Measurement of Sound Absorption in a Reverberation Room

³ See annex 3 Declare certificates

<p>X06. VOC Restrictions</p>  <p>MATERIALS</p>	<p>X06.2 Restrict VOC Emissions from Furniture, Architectural and Interior Products (like Insulation).</p>	<p>It requires adherence to emission thresholds for materials placed inside the building envelope.</p>	<p>ECOSE Technology products are compliant with the German AgBB Testing and Evaluation Scheme, the higher category (A+) of the French labelling and the Blue Angel. The binder is without added phenol formaldehyde. Products with or without facing are certified for Indoor Air Comfort Eurofins Gold ⁴</p> 	<p>2 points</p>
<p>X07. Material Transparency</p>  <p>MATERIALS</p>	<p>X07.1 Select product with Disclosed ingredients X07.2 Select products with Enhanced Ingredient Disclosure X07.3 Select Products with Third-Party Verified Ingredients</p>	<p>To prioritize supply chain and ingredient transparency in offering product specifiers the tools they need to make fully informed choices when selecting healthier products. This WELL feature requires the compilation and availability of product descriptions, with ingredients evaluated and disclosed through transparency labels.</p>	<p>ECOSE Technology products contain no ingredients listed on the REACH Authorization list, Restriction list or Substances of Very High Concern Candidate list. They are inventoried to at least 0.01% by weight (100ppm) and certified DECLARE LBC Red List Free which means no harmful chemical substances.</p> 	<p>3 points</p>
<p>X08. Materials Optimization</p>  <p>MATERIALS</p>	<p>X08.1 Promote the selection of products that have been audited to minimize impacts on human and environmental health.</p>	<p>To take precautionary approach to hazards by emphasizing healthy material selection. It requires screening and labeling of products in accordance with programs that restrict the use of hazardous ingredients in materials and products.</p>	<p>ECOSE Technology products contain no ingredients listed on the REACH Authorization list, Restriction list or Substances of Very High Concern Candidate list. They are inventoried to at least 0.01% by weight (100ppm) and certified DECLARE LBC Red List Free.</p>	<p>2 points</p>

⁴ See annex 1 Indoor Air Comfort Gold Eurofins and <https://www.eurofins.com/consumer-product-testing/>

Annex 1: Indoor Air Comfort Gold EUROFINS Certificate





Appendix to Certificate IACG-323-01-25-2020

Knauf Insulation

receives the Indoor Air Comfort Gold certificate with validity 15 October 2025

for below product group produced at sites as listed:

Product group: Knauf Insulation unfaced GMW products with ECOSE® Technology

Product type: Insulation

Production sites:

Bernburg, Germany
Cwmbran, United Kingdom
Eskisehir, Turkey
Krupka, Czech Republic
Lannemezan, France
St Helens, United Kingdom
Stupino, Russia
Visé, Belgium

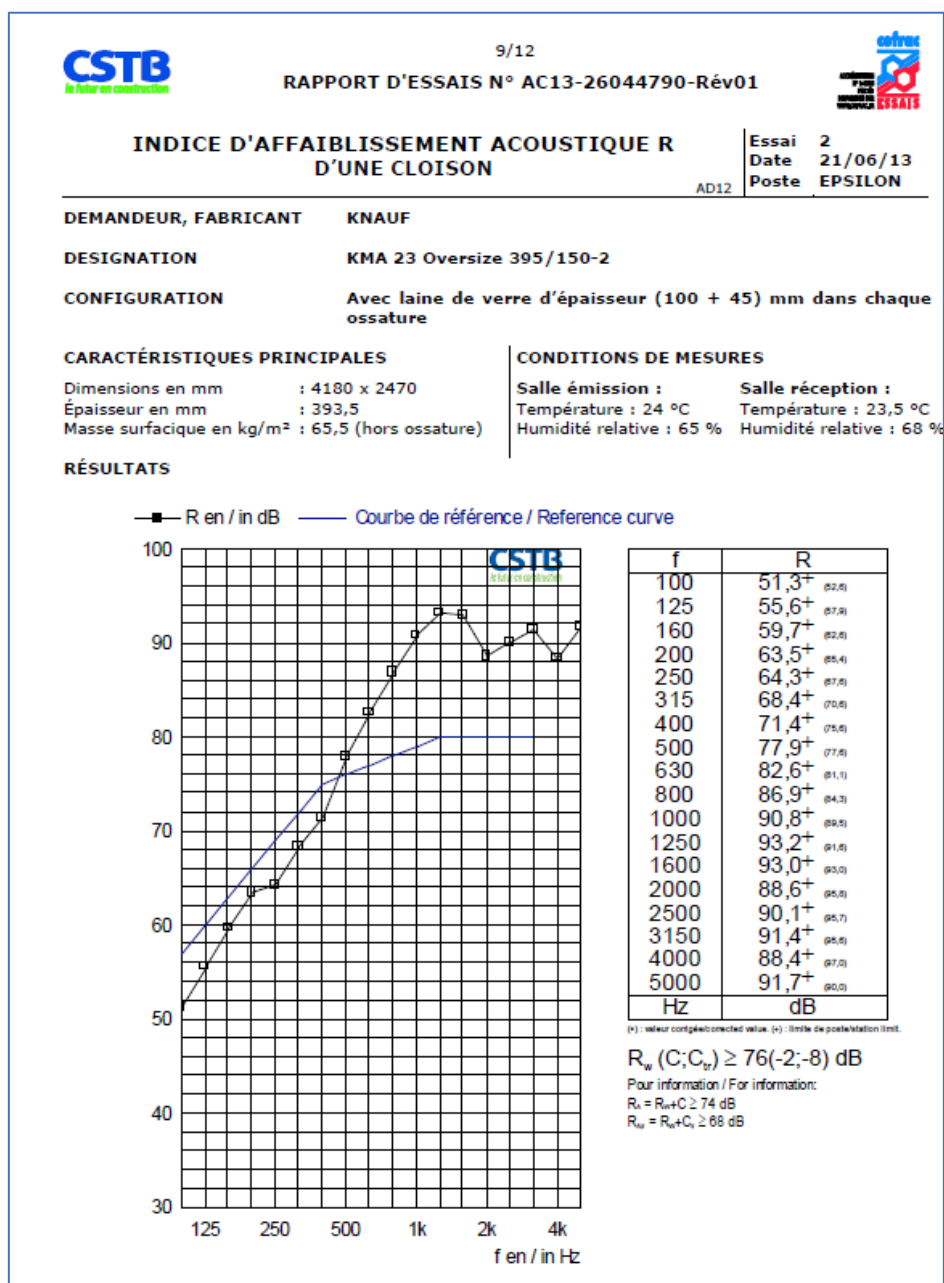
The products in this group are based on identical or similar recipe and are produced under equivalent conditions. Grouping of the products and inspection of the production process is part of the Indoor Air Comfort Gold certification. A worst-case product, which is representative for the whole group,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



Product Testing

Annex 2: ECOSE product and sound transmission and absorption examples

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

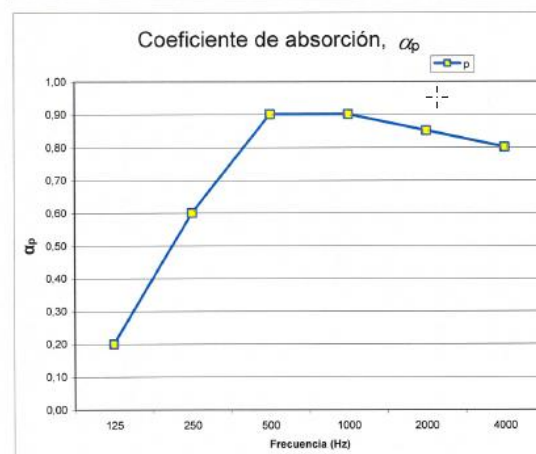


MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM ACCORDING TO CSN EN ISO 354		Registration no.: A-604
Product: Mineral insulation with ECOSE Technology (IPB 037) – thickness 50 mm		
Specimen description: The sample consist of 12 boards 1350 mm x 625 mm in the test room K4. The boards were produced on the basis of glass fibres with ECOSE technology. They are planned for thermal, sound and anti fire insulation. The specimen was laid freely on a floor and confined to specimen height.		
Specimen size: 2.50 m x 4.05 m		
Manufacturer: KNAUF INSULATION spol. s r.o. Bucharova 2641, 158 00 Praha 5		
Test room: K4	Date of test: August 14, 2012	
Room volume: 80,25 m ³	Fabrication date: August 14, 2012	
Air temperature: 23,0 °C		
Relative humidity: 46 %		
Reverberation method measurement results according to CSN EN ISO 354 and CSN EN ISO 11654		
Sound absorption coefficient α_s in 1/3 octave bands and weighed sound absorption coefficient α_w :		
Frequency [Hz]	α_s [-]	
100	0,16	
125	0,16	
160	0,20	
200	0,27	
250	0,43	
315	0,60	
400	0,64	
500	0,74	
630	0,75	
800	0,93	
1000	0,86	
1250	0,85	
1600	0,87	
2000	0,91	
2500	0,96	
3150	0,98	
4000	0,96	
5000	0,97	
Evaluation according to CSN EN ISO 11654: $\alpha_w = 0,70$ (H)		
Specimen area: 10,12 m ² Basic weight: - kg/m ²		Specimen thickness: 50 mm Air gap thickness: -
Centrum stavebního inženýrství a.s. (Centre of Building Engineering) - Acoustic Test Laboratory Test Laboratory accredited by ČAI, No. 1007.5 Pražská 16, 102 21 Prague 10 – Hostivar phone: 281017111, 281017491 fax: 271751128 e-mail: meller@csias.cz		Date: August 20, 2012 Test Laboratory Chief: Ing. M. Meller, CSc.

Protokol o zkoušce č. 223
Strana 6/8

Lugar de medida: Cámara reverberante normalizada de AUDIOTEC. Parc. 28 y 30. Parque Tecnológico de Boecillo. Valladolid. España.
Ensayo realizado: Medición de la absorción acústica en cámara reverberante.
Cliente: KNAUF INSULATION
C/ La Selva, 2. 08820. El Prat de Llobregat (Barcelona)
Fecha: 30 de Enero de 2010.
Composición de la muestra: Lana Mineral Natural ULTRACOUSTIC de 60 mm de espesor y $R_d = 1,60$ m².K/W.
Superficie muestra: 11,7 m². Volumen cámara: 202,12 m³.
Norma: UNE-EN ISO 354:2004.

Frec[Hz]	125	250	500	1000	2000	4000	$\alpha_{wp} = 0,$
α_p	0,20	0,60	0,90	0,90	0,85	0,80	



Annex 3: DECLARE labels



Glass Mineral Wool products without facing, with ECOSE Technology® Knauf Insulation

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

Ingredients:

EC: 926-099-9 Man-Made Vitreous (silicate) Fibers; Syrups, hydrolyzed starch; Ammonium Sulfate; Mineral Oil; Silane; Silicone oil

Living Building Challenge Criteria: Compliant


I-13 Red List:

<input checked="" type="checkbox"/> LBC Red List Free	% Disclosed: 100% at 100ppm
<input type="checkbox"/> LBC Red List Approved	VOC Content: Not Applicable
<input type="checkbox"/> Declared	

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

KNF-0043
 EXP: 01 AUG 2022
 Original Issue Date: 2021

MANUFACTURER RESPONSIBLE FOR LABEL ACCURACY
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Glass Mineral Wool products with paper Kraft or aluminum Kraft facing, with ECOSE Technology® Knauf Insulation

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

Ingredients:

EC: 926-099-9 Man-Made Vitreous (silicate) Fibers; Kraft paper; Syrups, hydrolyzed starch; PE; Aluminum; Ammonium Sulfate; PVAC Glue; Glass scrim – part 1; Glass scrim – part 2; Mineral Oil; Silane; Silicone oil; Sodium silicate glue

Living Building Challenge Criteria: Compliant

I-13 Red List:

<input checked="" type="checkbox"/> LBC Red List Free	% Disclosed: 100% at 100ppm
<input type="checkbox"/> LBC Red List Approved	VOC Content: Not Applicable
<input type="checkbox"/> Declared	

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

KNF-0047
 EXP: 01 JUL 2022
 Original Issue Date: 20XX

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<https://declare.living-future.org/>