





## LEED version 4.1

### PRODUCT DATA FOR CERTIFICATION

### WOOD WOOL – HERAKLITH

**LEEDv4.1** (Leadership in Energy and Environmental Design) is a voluntary standard that defines high performance green buildings that 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
<b>Energy and Atmosphere (EA)</b> Optimize Energy Performance 	To achieve increasing levels of performance beyond the prerequisite standard to reduce environmental and economic harms associated with excessive energy use.	Heraklith products help reducing energy demand through very high insulation efficiency (building envelop, partition walls, HVAC equipment, floors and ceilings).	<b>18 points</b>
<b>Materials and Resources ( MR)</b> 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 (EPDs) are available on line for Heraklith homogeneous board, Heratekta and Tektalan, <sup>1</sup> .	<b>2 points</b> 
<b>Materials and Resources ( MR)</b> Building Product Disclosure and Optimization – Sourcing of Raw Materials	To encourage the use of products where LC A 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.	Heraklith Products are manufactured with up to 80% of wood-based materials certified following FSC or PEFC labels (remaining part is the binder) <sup>2</sup> .	<b>1 point</b> 




<sup>1</sup> [https://www.knaufinsulation.com/download-epd-wood-wool?environmental\\_product\\_declaration=74;](https://www.knaufinsulation.com/download-epd-wood-wool?environmental_product_declaration=74;)  
<http://www.mrpi.nl/epd-certificaten>

<sup>2</sup> See annex 1

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<b>Materials and Resources ( MR)</b> 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.	Heraklith products contains no ingredients listed on the REACH Authorization or Candidate list or Substances of Very High Concern list <sup>3</sup> .	<b>1 point</b>
<b>Indoor Environmental Quality (EQ)</b> 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.	Products are compliant with the German AgBB Testing and Evaluation Scheme and the higher category (A+) of the French labelling. They are certified with Blue Angel low air emission ecolabel (following RAL-UZ-132) <sup>4</sup> .	<b>3 points</b>  
<b>Indoor Environmental Quality (EQ)</b> Indoor Air Quality Assessment	To establish better quality indoor air in the building after construction and during occupancy	The quality of the Heraklith products help to reach appropriate concentration level regarding formaldehyde and TVOCs during indoor air quality assessment.	<b>2 points</b>
<b>Indoor Environmental Quality (EQ)</b> Acoustic Performance	To provide workspaces and classrooms that promote occupants' well-being, productivity, and communications through effective acoustic design.	Products have high performance acoustic properties <sup>5</sup> . They reduce HVAC background noise, increase sound insulation of building envelope, partitions, ceilings and aid in controlling reverberation time.	<b>1 point</b>
<b>Indoor Environmental Quality (EQ)</b> 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.	<b>1 point</b>

<sup>3</sup> See annex 2

<sup>4</sup> See annex 3

<sup>5</sup> See annex 4

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1) **Annex 1: PEFC certificate for Simbach Plant and FSC certificate for Zalaegerszeg supplier**



**HOLZ FORSCHUNG AUSTRIA**

Dieses Zertifikat bestätigt, dass das Verfahren für die Produktion und/oder den Handel von

**Holzwoleplatten – Holzwolle mehrschichtplatten**

hergestellt und/oder gehandelt durch

**Knauf Insulation Operation GmbH**

**DE-84359 Simbach a. Inn, Heraklithstraße 8**

am obigen Standort einer Erstprüfung unterzogen wurde, laufend überwacht wird und den Anforderungen des Regelwerkes



**Chain of Custody**  
PEFC ST 2002:2013 Chain of Custody of Forest Based Products - Requirements

In der jeweils gültigen Fassung entspricht (siehe [www.pefc.org](http://www.pefc.org)), solange die Voraussetzungen erfüllt werden.

Detaillierte Informationen zum Zertifizierungsumfang finden sich im Anhang zu diesem Zertifikat.

Zertifikatsnummer: HFA-COC-0710  
Datum der Erstausstellung: 16.07.2019  
Datum der Ausstellung: 16.07.2019  
Gültig bis: 15.07.2024


  
**Dr. (FH) Dimitrij Pospelov**  
Zeichnungsberechtigter



  
**Dr. Manfred Brandstätter**  
Leiter der Zertifizierungsstelle

**HOLZFORSCHUNG AUSTRIA - ÖSTERREICHISCHE GESELLSCHAFT FÜR HOLZFORSCHUNG** ZNR:850896022  
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The mark of responsible forestry



**Certificate of Registration**

This is to certify that

**ZSELBA SZOLGÁLTATÓ ÉS TERMELŐ KFT**  
**Trading as: ZSELBA KFT**

'the certified site' has been certified in accordance with the requirements of the Forest Stewardship Council® A.C. using the FSC® Chain of Custody standards\* and that ZSELBA SZOLGÁLTATÓ ÉS TERMELŐ KFT of

**Site Address: Lenti - Zajda 046HRSZ, Lenti, Zala, 8960, HUNGARY**  
**Registered Address: Béke u 49, Lenti, 8960, HUNGARY**

is hereby licensed to use the FSC Logo on and sell as FSC certified all products listed on the attached FSC product schedule as FSC 100%


<b>Certificate Registration Code:</b>	<b>SA-COC-004508</b>
<b>Issue Number:</b>	2.0
<b>Licence Code:</b>	<b>FSC-C122593</b>
<b>Issued By:</b>	Soil Association Certification Limited Spear House, 51 Victoria Street Bristol, BS1 6AD United Kingdom
<b>Issue Date:</b>	<b>18 September 2019</b>
<b>Valid until the Renewal Date:</b>	<b>17 September 2024</b>
<b>Signed on behalf of Soil Association Certification</b>	 Kevin Jones, Head of Forestry

CA-COC-004-17 Nov 2018 © Prepared by Soil Association Certification Ltd. FSC Licence Code FSC® A300325  
 \*This certificate is only valid for sale of FSC products when accompanied by a current product schedule. Validity of this certificate shall also be verified by checking the FSC database. Inclusion or by contacting Soil Association Certification forestry@soilassociation.org. This Certificate is the property of Soil Association Certification Ltd and all copies or reproductions of the certificate shall be destroyed or returned to the Soil Association Certification Ltd immediately on request.  
 A description of the products, sites or services that are included in the scope of the certificate may be obtained from Soil Association Certification on request.  
 This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC certified (or FSC controlled wood). Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents.

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**Annex 2: REACH compliance document**





May 1<sup>st</sup> 2020

**SUBJECT:** Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)-  
Regulation (EC) No 1907/2006

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Dear Customer

Thank you for your enquiry with regard to the following products: –

**KNAUF INSULATION WOOD WOOL PRODUCTS**

Knauf Insulation Wood Wool products are classified as Articles with no intended release and therefore do not require registration under the Registration, Evaluation, Authorisation of Chemicals (REACH) regulations; 1907/2006

Knauf Insulation Wood Wool products do not contain any substances listed under the Candidate List of Substances of Very High Concern for Authorisation in concentration higher than 0.1% (w/w). Furthermore these products do not contain neither any substances listed under the Annex XIV of the Regulation (EC) 1907/2006 – List of substances subject to authorisation

If you have any questions please do not hesitate to contact us; details below

**Bruno Bilki**  
Product Stewardship & Standardization Manager  
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**Annex 3: Blue Angel Requirements and certificate.**

From document: "Basic Criteria for Award of the Environmental Label; Low-Emission Thermal Insulation Material and Suspended Ceilings for Use in Buildings RAL-UZ 132".

*The product shall not exceed the emission values listed in Table 1 in the test chamber in conformity with the „Health risk assessment process for emissions of volatile organic compounds (VOC) from building products” developed by the Committee for Health-related Evaluation of Building Products.*

**Table 1: Emission Values**

Substance	Requirements Final Value 28 Days
Total organic compounds within the retention range $C_6 - C_{16}$ (TVOC)	$\leq 100 \mu\text{g}/\text{m}^3$
Total organic compounds within the retention range $> C_{16} - C_{22}$ (TSVOC)	$\leq 20 \mu\text{g}/\text{m}^3$
C substances <sup>12</sup>	$\leq 1 \mu\text{g}/\text{m}^3$ per single value
Total VOC without LIC <sup>13, 14</sup>	$\leq 50 \mu\text{g}/\text{m}^3$
R value	$\leq 1$
Formaldehyde	$\leq 0.05 \text{ ppm}$



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### Annex 4: Sound absorption example

$\alpha$  coefficient is the coefficient for *sound absorption*.

