



# SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

**15171-10-1001**

## JACKOBOARD

Product group: Technical building equipment / Sanitary facilities - Interior construction - Systems



JACKON Insulation GmbH  
Ritzlebener Str. 1  
39619 Arendsee OT Mechau



### Product qualities:




*Köttner*

Helmut Köttner  
Scientific Director  
Freiburg, 06 July 2026



Product:










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The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar





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## SHI Product Assessment 2024

Since 2008, Sentinel Holding Institut GmbH (SHI) has been establishing a unique standard for products that support healthy indoor air. Experts carry out independent product assessments based on clear and transparent criteria. In addition, the independent testing company SGS regularly audits the processes and data accuracy.

Criteria	Product category	Harmful substance limit	Assessment
SHI Product Assessment	Insulation materials	TVOC $\leq 300 \mu\text{g}/\text{m}^3$ Formaldehyd $\leq 24 \mu\text{g}/\text{m}^3$	Indoor Air Quality Certified
Valid until: 05 June 2028			



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## QNG - Qualitätssiegel Nachhaltiges Gebäude

The Qualitätssiegel Nachhaltiges Gebäude (Quality Seal for Sustainable Buildings), developed by the German Federal Ministry for Housing, Urban Development and Building (BMWSB), defines requirements for the ecological, socio-cultural, and economic quality of buildings. The Sentinel Holding Institut evaluates construction products in accordance with QNG requirements for certification and awards the QNG ready label. Compliance with the QNG standard is a prerequisite for eligibility for the KfW funding programme. For certain product groups, the QNG currently has no specific requirements defined. Although classified as not assessment-relevant, these products remain suitable for QNG-certified projects.

Criteria	Pos. / product group	Considered substances	QNG assessment
3.1.3 Schadstoffvermeidung in Baumaterialien	12.1 Rigid plastic foam insulation boards and spray foams	Halogenated propellants / SVHC: HBCD, TCEP / emissions	QNG ready
<b>Verification:</b> Herstellererklärung 11.05.26			



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## DGNB New Construction 2023.2

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact			Not relevant for assessment

**Verification:** Nur XPS-Dämmplatten an der Gebäudehülle außen sind bewertungsrelevant.



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## DGNB New Construction 2023

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings. The 2023 version sets high standards for ecological, economic, socio-cultural, and functional aspects throughout the entire life cycle of a building.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 03.05.2024 (3rd edition)	not applicable		Not relevant for assessment

**Verification:** Nur XPS-Dämmplatten an der Gebäudehülle außen sind bewertungsrelevant.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	not applicable		Not relevant for assessment

**Verification:** Nur XPS-Dämmplatten an der Gebäudehülle außen sind bewertungsrelevant.

Criteria	Assessment
ENV1.1 Climate action and energy (*)	May positively contribute to the overall building score

**Verification:** Es liegt eine EPD vor. - Eine effizientere Energienutzung im Gebäude wird durch den Wärmedämmstoff hervorgerufen. - Das Produkt besteht zu einem Teil aus recyceltem (CO<sub>2</sub>-reduzierten) PS



Criteria	Assessment
ECO1.1 Life cycle cost (*)	May positively contribute to the overall building score
<b>Verification:</b> Das Produkt trägt durch die Reduktion der Energiekosten zur Senkung der Lebenszykluskosten bei.	

Criteria	Assessment
ECO2.6 Climate resilience (*)	May positively contribute to the overall building score
<b>Verification:</b> Das Produkt ist ein Wärmedämmstoff und trägt damit zum Kühl- oder Hitzeschutz des Gebäude bei.	

Criteria	Assessment
SOC1.1 Thermal comfort (*)	May positively contribute to the overall building score
<b>Verification:</b> Das Produkt ist eine Wärmedämmstoff und kann damit die Innenraumtemperatur mit regulieren.	

Criteria	Assessment
SOC1.2 Indoor air quality (*)	May positively contribute to the overall building score
<b>Verification:</b> Das Produkt entspricht dem AgBB Schema	

Criteria	Assessment
TEC1.3 Quality of the building envelope (*)	May positively contribute to the overall building score
<b>Verification:</b> Das Wärmedämmprodukt minimiert den Wärme-/Kälte durchgang an der Gebäudehülle.	



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## DGNB New Construction 2018

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact	not applicable	not applicable	Not relevant for assessment



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## **BNB-BN Neubau V2015**

The Bewertungssystem Nachhaltiges Bauen (Assessment System for Sustainable Building) is a tool for evaluating public office and administrative buildings, educational facilities, laboratory buildings, and outdoor areas in Germany. The BNB was developed by the former Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and is now overseen by the Federal Ministry for Housing, Urban Development and Building (BMWSB).

Criteria	Pos. / product type	Considered substance group	Quality level
1.1.6 Risiken für die lokale Umwelt	36b Mineral and non-mineral interior insulations	VOC / biocides / hazardous substances / individual hazardous substances (formaldehyde) / halogenated blowing agents	Quality level 4

**Verification:** Herstellererklärung 11.05.26, Prüfbericht-Nr.: 60153503 001



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## EU taxonomy

The EU Taxonomy classifies economic activities and products according to their environmental impact. At the product level, the EU regulation defines clear requirements for harmful substances, formaldehyde and volatile organic compounds (VOCs). The Sentinel Holding Institut GmbH labels qualified products that meet this standard.

Criteria	Product type	Considered substances	Assessment
DNSH - Pollution prevention and control	Internal insulation	Substances according to Annex C, formaldehyde, carcinogenic VOCs category 1A/1B	compliant
<b>Verification:</b> Herstellererklärung 11.05.26, Prüfbericht-Nr.: 60153503 001			



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## BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) is a UK-based building assessment system that evaluates the sustainability of new constructions, refurbishments, and conversions. Developed by the Building Research Establishment (BRE), the system aims to assess and improve the environmental, economic, and social performance of buildings.

Criteria	Product category	Considered substances	Quality level
Hea 02 Indoor Air Quality	Ceiling, wall, and acoustic and thermal insulation materials	Emissions: Formaldehyde, TVOC, TSVOC, carcinogens	Exemplary quality

**Verification:** Prüfbericht-Nr.: 60153503 001



Product:

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## LEED v4.1

LEED (Leadership in Energy and Environmental Design) is an internationally recognised building certification system developed by the U.S. Green Building Council. It is one of the most widely used sustainability standards for buildings worldwide and is particularly applied in internationally oriented projects. LEED assesses buildings holistically across categories such as energy efficiency, resource conservation, material selection, indoor environmental quality and site sustainability. Depending on the number of points achieved, projects are awarded one of the certification levels: LEED Certified, Silver, Gold or Platinum.

Criteria	Product category	Considered substances	Assessment
EQ Credit: Low-Emitting Materials	Dämmstoffe	Emissionen: Formaldehyd, VOC, Krebserregende Stoffe, VOC-Gehalt	compliant
<b>Verification:</b> Prüfbericht-Nr.: 60153503 001			



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## Product labels

In the construction industry, high-quality materials are crucial for a building's indoor air quality and sustainability. Product labels and certificates offer guidance to meet these requirements. However, the evaluation criteria of these labels vary, and it is important to carefully assess them to ensure products align with the specific needs of a construction project.



This product is SHI Indoor Air Quality certified and recommended by Sentinel Holding Institut. Indoor-air-focused construction, renovation, and operation of buildings is made possible by transparent and verifiable criteria thanks to the Sentinel Holding concept.



Products bearing the Sentinel Holding Institute QNG-ready seal are suitable for projects aiming to achieve the "Qualitätssiegel Nachhaltiges Gebäude" (Quality Seal for Sustainable Buildings). QNG-ready products meet the requirements of QNG Appendix Document 3.1.3, "Avoidance of Harmful Substances in Building Materials." The KfW loan program Climate-Friendly New Construction with QNG may allow for additional funding.



EPD-Global (formerly EPD-Norge) is the Norwegian program operator for Environmental Product Declarations (EPDs). The program follows ISO 14025 and EN 15804 and ensures that EPDs for construction and industrial products are published in a consistent, verified and comparable manner. Before publication, each EPD undergoes independent third-party verification; EPD-Norge provides clear procedures, Product Category Rules (PCR/NPCR) and a public register for this purpose.



Product:

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## Legal notices

(\*) These criteria apply to the construction project as a whole. While individual products can positively contribute to the overall building score through proper planning, the evaluation is always conducted at the building level. The information was provided entirely by the manufacturer.

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Find our criteria here: <https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfverfahren/kriterien%20of%20Pr%C3%BCfverfahren%20Produkte>

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### Publisher

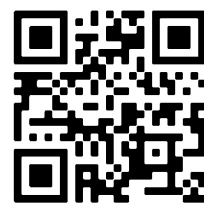
Sentinel Holding Institut GmbH  
Bötzingen Str. 38  
79111 Freiburg im Breisgau  
Germany  
Tel.: +49 761 590 481-70  
[info@sentinel-holding.eu](mailto:info@sentinel-holding.eu)  
[www.sentinel-holding.eu](http://www.sentinel-holding.eu)



## Unendliche kreative Möglichkeiten für das Badezimmer.

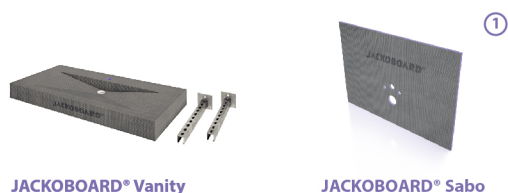
Ob es um die Planung oder Renovierung von Badezimmern geht, das JACKOBOARD® Bauplattensystem lässt Ihre Träume wahr werden.

Mit **JACKOBOARD®** lassen sich Wände gestalten, Verkleidungen entwerfen, Böden ausbessern, Nischen einrichten, barrierefreie Duschbereiche bauen, Waschtische errichten, Möbel konstruieren. **Und vieles mehr.**



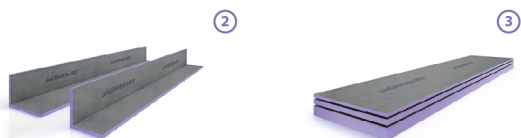
## Warum sollten Sie JACKOBOARD® wählen?

- Unsere Produkte können auf allen Untergründen verwendet werden und sind **isolierend, leicht und stabil.**
- **100 % wasserdicht**, um extremen Feuchtigkeitsbedingungen standzuhalten.
- JACKOBOARD lässt sich mit allen Endbearbeitungen durch direktes **Auftragen von Fliesen, Putz, Spachtel, usw. variieren.**
- **Leicht und einfach zuzuschneiden**, lassen sich in allen Räumen problemlos einsetzen.
- **Unübertroffene** Verarbeitungsgeschwindigkeit.



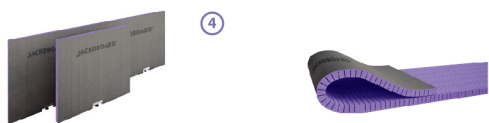
JACKOBOARD® Vanity

JACKOBOARD® Sabo



JACKOBOARD® Canto

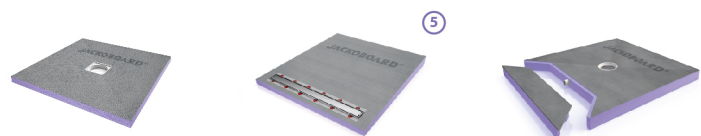
JACKOBOARD® Plano



JACKOBOARD® Wabo

JACKOBOARD® Flexo

Unsere Duschelemente sind prinzipiell kürzbar und können so an baustellenseitige Gegebenheiten angepasst werden.



JACKOBOARD® Aqua

JACKOBOARD® Aqua Line Pro

JACKOBOARD® Aqua Reno

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

## JACKOBOARD



**BEWI**

**Owner of the declaration:**

BEWI ASA, Insulation and Construction

**Product:**

JACKOBOARD

**Declared unit:**

1 m<sup>2</sup>

**This declaration is based on Product Category Rules:**

CEN Standard EN 15804:2012+A2:2019 serves as core PCR.

NPCR 012:2022 Part B for Thermal insulation products

**Program operator:**

EPD-Global

**Declaration number:**

NEPD-15739-19709

**Issue date:**

28.05.2026

**Valid to:**

28.05.2031

**EPD software:**

LCAno EPD generator ID: 1538592

## General information

### Product

JACKOBOARD

### Program operator:

EPD-Global  
Post Box 5250 Majorstuen, 0303 Oslo, Norway  
Phone: +47 977 22 020  
web: [www.epd-global.com](http://www.epd-global.com)

### Declaration number:

NEPD-15739-19709

### This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR.  
NPCR 012:2022 Part B for Thermal insulation products

### Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD-Global shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

### Declared unit:

1 m<sup>2</sup> JACKOBOARD

### Declared unit with option:

A1, A2, A3, A4, A5, C1, C2, C3, C4, D

### Functional unit:

### General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Global's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Global, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Global's General Programme Instructions for further information on EPD tools

### Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPD-Global's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

### Owner of the declaration:

BEWI ASA, Insulation and Construction  
Contact person: Marc Storm Andersen  
Phone: +45 72157902  
e-mail: [marc.andersen@bewi.com](mailto:marc.andersen@bewi.com)

### Manufacturer:

BEWI Insulation Germany and Belgium  
Europe

### Place of production:

JACKON Insulation GmbH  
Ritzlebener Str.1  
39619 Arendsee, Germany

### Management system:

ISO 14001 og 9001 for all production sites

### Organisation no:

925437948

### Issue date:

28.05.2026

### Valid to:

28.05.2031

### Year of study:

2025

### Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804:2012+A2:2019 and seen in a building context.

### Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD-Global. NEPDT97

Developer of EPD: Mark Plate

Reviewer of company-specific input data and EPD: Mikael Danestedt

### Approved:



Håkon Hauan, CEO EPD-Global

## Product

### Product description:

JACKOBOARD® construction boards are made of extruded polystyrene foam (JACKODUR®KF), with a coating of special mortar and glass fibre fabric on both sides. JACKODUR®KF is a polystyrene insulation foam material that complies with EN 13164, which is produced in the form of boards with a mean gross density of 33 kg/m<sup>3</sup>. The calculated density of the construction board, including the coating, is 186 kg/m<sup>3</sup>. The construction boards are supplied with smooth edges. Use of the product is subject to the relevant national regulations in the country of installation. In Germany, for example, this includes the building regulations of the individual federal states and the technical regulations derived from them.

This LCA is based on the Jackoboard F 20mm thickness, but can also be used for other thicknesses with the conversion factor found under System boundaries.

### Product specification

Materials	kg	%
Cement	3.02	95.66
Flame retardant	0.006	0.1899
JACKODUR® KF (without FR)	0.017	0.5381
Reinforcement	0.114	3.61
Total	3.16	100.00

Packaging	kg	%
Packaging - Plastic	0.011	2.74
Packaging - Wood	0.391	97.26
Total incl. packaging	3.56	100.00

### Technical data:

Name	Value	Unit	Norm
Gross density of the core material (polymer foam)	> 30	kg / m <sup>3</sup>	EN 1602
Tensile strength	0,3	N/mm <sup>2</sup>	EN 1607
Reaction to fire	E	class	EN 13501-1
Dimensional stability at 70°C and 90% relative humidity	< 5	%	EN 1605
Compressive stress at 10% deformation or compressive	200	kPa	EN 826
Deformation under 40 kPa load and 70°C	< 5	%	EN 1605

### Market:

Europe

### Reference service life, product

A reference service life (RSL) according to ISO 15686 cannot be declared. The durability of JACKOBOARD is normally at least as long as the lifetime of the building in which it is used (more than 80 years).

### Reference service life, building or construction works

As in the construction where it is used.

## LCA: Calculation rules

### Declared unit:

1 m<sup>2</sup> JACKOBOARD

### Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

< 0,5%

### Allocation:

The allocation is made in accordance with the provisions of EN 15804+A2. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

### Data quality:

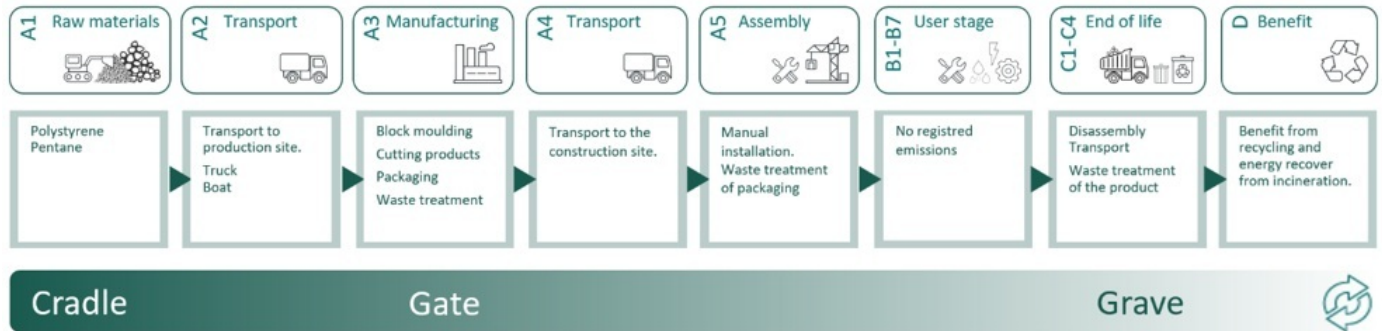
Specific data for the product composition are provided by the manufacturer. The data represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on EPDs according to EN 15804 and different LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Materials	Source	Data quality	Year
Cement	ecoinvent 3.6	Database	2019
Expansion gas	ecoinvent 3.6	Database	2019
Expansion gas	ecoinvent 3.6	Database	2020
Filler	ecoinvent 3.6	Database	2019
Flame retardant	Ecoinvent 3.6	Database	2019
Packaging - EPS	Plastics Europe + ecoinvent 3.6	European average.	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Packaging - Wood	ecoinvent 3.6	Database	2019
Plastic - Polystyrene (PS)	Plastics Europe + ecoinvent 3.6	European average.	2020
Plastic - Recycled	Supplier	EPD	0
Reinforcement	ecoinvent 3.6	Database	2019

## System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage			Construction installation stage		Use stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

### System boundary:



Conversion factor GWP total						
A1-A3	6mm	12mm	20mm	30mm	50mm	80mm
JACKOBOARD F	0,731	0,754	1,00	1,252	1,821	2,565
A1-D	6mm	12mm	20mm	30mm	50mm	80mm
JACKOBOARD F	0,776	0,806	1,00	1,207	1,672	2,194

### Additional technical information:

## LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

<b>Transport from production place to user (A4)</b>	<b>Capacity utilisation (incl. return) %</b>	<b>Distance (km)</b>	<b>Fuel/Energy Consumption</b>	<b>Unit</b>	<b>Value (Liter/tonne)</b>
Truck, 16-32 tonnes, EURO 6 (kgkm)	36.7 %	628.00	0.043	l/tkm	27.00
<b>Assembly (A5)</b>					
	<b>Unit</b>	<b>Value</b>			
Waste, packaging, wood to average treatment - A5 (inkl transport) (kg)	kg	0.391			
Waste, packaging, plastic to average treatment - A5 (inkl transport) (kg)	kg	0.011			
<b>De-construction demolition (C1)</b>					
	<b>Unit</b>	<b>Value</b>			
Demolition of insulated concrete, C1 (kg)	kg	3.15			
<b>Transport to waste processing (C2)</b>					
	<b>Capacity utilisation (incl. return) %</b>	<b>Distance (km)</b>	<b>Fuel/Energy Consumption</b>	<b>Unit</b>	<b>Value (Liter/tonne)</b>
Truck, over 32 tonnes, EURO 6 (kgkm)	53.3 %	20.00	0.023	l/tkm	0.46
<b>Waste processing (C3)</b>					
	<b>Unit</b>	<b>Value</b>			
Waste treatment of cement-based product after demolition, C3 (kg)	kg	3.15			
<b>Disposal (C4)</b>					
	<b>Unit</b>	<b>Value</b>			
Waste, inert waste, to landfill (kg)	kg	3.15			
<b>Benefits and loads beyond the system boundaries (D)</b>					
	<b>Unit</b>	<b>Value</b>			
Substitution of thermal energy (MJ)	MJ	4.11			
substitution of electricity (MJ)	MJ	0.2718			

## LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environmental impact												
Indicator	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
GWP-total	kg CO <sub>2</sub> -eq	1.54E+00	1.68E-01	1.33E-01	3.83E-01	1.14E-02	1.26E-02	6.50E-03	2.27E-03	2.59E-02	-2.47E-02	
GWP-fossil	kg CO <sub>2</sub> -eq	2.13E+00	1.68E-01	1.33E-01	3.83E-01	1.14E-02	1.26E-02	6.50E-03	2.24E-03	2.59E-02	-2.39E-02	
GWP-biogenic	kg CO <sub>2</sub> -eq	-5.87E-01	6.94E-05	5.93E-05	1.58E-04	5.13E-05	2.37E-06	2.78E-06	1.93E-05	3.02E-05	-4.92E-05	
GWP-luluc	kg CO <sub>2</sub> -eq	1.14E-03	5.96E-05	1.47E-05	1.36E-04	2.77E-06	9.94E-07	1.98E-06	3.10E-06	6.36E-06	-8.22E-04	
ODP	kg CFC11-eq	1.06E-07	3.80E-08	1.75E-08	8.67E-08	1.73E-09	2.72E-09	1.57E-09	4.41E-10	9.79E-09	-1.74E-03	
AP	mol H <sup>+</sup> -eq	7.76E-03	4.82E-04	1.61E-04	1.10E-03	8.57E-05	1.32E-04	2.09E-05	1.81E-05	2.30E-04	-1.96E-04	
EP-FreshWater	kg P -eq	4.31E-05	1.34E-06	7.18E-07	3.06E-06	1.28E-07	4.59E-08	5.17E-08	1.41E-07	2.93E-07	-2.12E-06	
EP-Marine	kg N -eq	1.78E-03	9.53E-05	3.76E-05	2.18E-04	3.73E-05	5.83E-05	4.58E-06	5.31E-06	8.55E-05	-6.42E-05	
EP-Terrestrial	mol N -eq	1.99E-02	1.07E-03	4.12E-04	2.43E-03	3.93E-04	6.31E-04	5.11E-05	6.12E-05	9.43E-04	-6.95E-04	
POCP	kg NMVOC-eq	6.43E-03	4.08E-04	1.42E-04	9.32E-04	1.01E-04	1.76E-04	2.01E-05	1.64E-05	2.70E-04	-1.92E-04	
ADP-minerals&metals <sup>1</sup>	kg Sb-eq	3.09E-05	4.63E-06	1.09E-06	1.06E-05	1.75E-07	1.94E-08	1.16E-07	2.84E-08	2.33E-07	-2.37E-07	
ADP-fossil <sup>1</sup>	MJ	4.46E+01	2.53E+00	2.01E+00	5.79E+00	1.27E-01	1.74E-01	1.06E-01	6.95E-02	7.12E-01	-3.41E-01	
WDP <sup>1</sup>	m <sup>3</sup>	1.39E+02	2.45E+00	6.34E-01	5.60E+00	2.03E-01	3.69E-02	8.09E-02	7.67E+00	4.39E+00	-4.25E+00	

GWP-total = Global Warming Potential total; GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

"Reading example: 9.0 E-03 = 9.0\*10<sup>-3</sup> = 0.009"

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

### Remarks to environmental impacts

Additional environmental impact indicators												
Indicator	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
PM	Disease incidence	7.50E-08	1.03E-08	9.63E-10	2.34E-08	1.05E-09	1.60E-08	5.97E-10	2.90E-10	4.91E-09	-1.19E-08	
IRP <sup>2</sup>	kgBq U235 -eq	7.57E-02	1.11E-02	1.15E-03	2.53E-02	4.64E-04	7.57E-04	4.61E-04	1.17E-03	3.25E-03	-2.18E-03	
ETP-fw <sup>1</sup>	CTUe	1.70E+02	1.88E+00	5.20E-01	4.29E+00	1.44E-01	9.49E-02	7.72E-02	4.93E-02	3.88E-01	-1.86E+00	
HTP-c <sup>1</sup>	CTUh	1.16E-09	0.00E+00	4.00E-11	0.00E+00	1.60E-11	3.00E-12	0.00E+00	3.00E-12	1.60E-11	-3.40E-11	
HTP-nc <sup>1</sup>	CTUh	4.03E-08	2.05E-09	6.81E-10	4.69E-09	7.55E-10	8.80E-11	7.50E-11	4.40E-11	2.81E-10	-1.78E-09	
SQP <sup>1</sup>	dimensionless	7.47E+01	1.77E+00	2.45E-01	4.05E+00	7.56E-02	2.11E-02	1.21E-01	3.93E-02	2.74E+00	-2.28E+00	

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Potential Soil Quality Index (dimensionless)

"Reading example: 9.0 E-03 = 9.0\*10<sup>-3</sup> = 0.009"

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator
2. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Resource use												
Indicator	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
PERE	MJ	8.58E+00	3.63E-02	1.11E+00	8.28E-02	2.63E-03	9.46E-04	1.33E-03	3.58E-02	2.55E-02	-2.11E+00	
PERM	MJ	5.43E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
PERT	MJ	1.40E+01	3.63E-02	1.11E+00	8.28E-02	2.63E-03	9.46E-04	1.33E-03	3.58E-02	2.55E-02	-2.11E+00	
PENRE	MJ	3.09E+01	2.53E+00	2.01E+00	5.79E+00	1.27E-01	1.74E-01	1.06E-01	6.96E-02	7.12E-01	-3.41E-01	
PENRM	MJ	1.56E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
PENRT	MJ	4.65E+01	2.53E+00	2.01E+00	5.79E+00	1.27E-01	1.74E-01	1.06E-01	6.96E-02	7.12E-01	-3.41E-01	
SM	kg	1.82E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RSF	MJ	3.55E-02	1.30E-03	5.40E-04	2.96E-03	7.65E-05	0.00E+00	4.64E-05	0.00E+00	5.29E-04	-3.69E-04	
NRSF	MJ	1.05E-02	4.64E-03	4.65E-04	1.06E-02	8.50E-04	0.00E+00	1.56E-04	0.00E+00	1.14E-03	-1.25E-01	
FW	m <sup>3</sup>	3.04E-02	2.71E-04	9.03E-04	6.19E-04	9.19E-05	8.94E-06	1.20E-05	1.19E-04	8.76E-04	-2.54E-03	

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9.0 E-03 = 9.0\*10<sup>-3</sup> = 0.009"

End of life - Waste												
Indicator	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
	HWD	kg	6.69E-03	1.31E-04	1.97E-04	2.98E-04	0.00E+00	5.11E-06	5.77E-06	6.95E-06	0.00E+00	-1.60E-05
	NHWD	kg	2.68E-01	1.23E-01	1.02E-02	2.81E-01	4.02E-01	2.06E-04	9.17E-03	2.19E-04	3.15E+00	-8.06E-03
	RWD	kg	5.71E-05	1.73E-05	1.52E-06	3.94E-05	0.00E+00	1.21E-06	7.21E-07	7.35E-07	0.00E+00	-1.79E-06

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

"Reading example: 9.0 E-03 = 9.0\*10<sup>-3</sup> = 0.009"

End of life - Output flow												
Indicator	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	MFR	kg	1.73E-02	0.00E+00	1.08E-02	0.00E+00	5.62E-03	0.00E+00	0.00E+00	3.15E+00	0.00E+00	0.00E+00
	MER	kg	3.81E-03	0.00E+00	2.52E-03	0.00E+00	3.91E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	EEE	MJ	5.87E-03	0.00E+00	3.76E-03	0.00E+00	2.72E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	EET	MJ	8.89E-02	0.00E+00	5.69E-02	0.00E+00	4.11E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

"Reading example: 9.0 E-03 = 9.0\*10<sup>-3</sup> = 0.009"

Biogenic Carbon Content		
Indicator	Unit	At the factory gate
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in accompanying packaging	kg C	1.62E-01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>

## Additional requirements

### Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Source	Amount	Unit
Electricity, Germany (kWh)	ecoinvent 3.6	585.93	g CO <sub>2</sub> -eq/kWh
Electricity, with Guarantee of origin, 01.01.2025 - 31.12.2025 - BEWI Arendsee, Germany (kWh)	ecoinvent 3.6	29.24	g CO <sub>2</sub> -eq/kWh

### Dangerous substances

The product contains no substances given by the REACH Candidate list.

### Indoor environment

JACKOBOARD® can be used indoor however they are generally not exposed to the indoor air but covered by a finishing element or system. The VOC emission testing meets the requirements of the AgBB/DIBt method. The tested products all comply with the requirements of DIBt and AgBB for the use in the indoor environment. The tested products also all achieved the A+ rating of the French VOC labelling scheme.

## Additional Environmental Information

### Additional environmental impact indicators required in NPCR Part A for construction products

Indicator	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	1.54E+00	1.68E-01	1.30E-01	3.83E-01	1.14E-02	1.26E-02	6.50E-03	2.24E-03	2.59E-02	-2.44E-02

GWP-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

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 <small>Powered by EPD-Norway</small>	<b>Program operator and publisher</b> EPD-Global Postboks 5250 Majorstuen, 0303 Oslo, Norway	Phone: +47 977 22 020 e-mail: post@epd-norge.no web: www.epd-global.com
	<b>Owner of the declaration:</b> BEWI ASA, Insulation and Construction Hammarvikringen 64, HAMAR 7263, Norway	Phone: +45 72157902 e-mail: marc.andersen@bewi.com web: https://bewi.com
	<b>Author of the Life Cycle Assessment</b> LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway	Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no
	<b>Developer of EPD generator</b> LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway	Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no
	ECO Platform ECO Portal	web: www.eco-platform.org web: ECO Portal

## Herstellererklärung für das Produkt JACKOBOARD


Hiermit bestätigen wir, dass bei den extrudierten Polystyrolhartschaumprodukten JACKOBOARD keine Stoffe enthalten sind, die

- SVHC entsprechend Verordnung (EG) 1907/2006 (REACH)
- HBCD
- halogenierte Treibmittel wie (H)F(C)KW
- CMR-Stoffe der Kategorie 1A/1B entsprechend CLP-Verordnung 1272/2008

sind.

Arendsee, 11.05.2026

Daniel Geigenfeind  
Geschäftsführer

  
i.V. Dr. Mark Plate

Sustainability and Product Stewardship