



SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

14926-10-1004

IDEAL ÖKO ST

Product group: Interior construction - Surface heating systems

mfh:systems
modern floor heating



mfh systems GmbH
Hager Feld 8
49191 Belm



Product qualities:



Köttner

Helmut Köttner
Scientific Director
Freiburg, 02 February 2026



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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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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	12.4 Insulation materials made from renewable raw materials	Hazardous substances / SVHC: boron compounds / biocides	QNG ready
Verification: Herstellererklärung vom 27. Januar 2025			



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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 relevant for assessment

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



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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	45 Construction products (products) equipped with biocides and flame retardants	Boron compounds	Quality level 4
Verification: Herstellererklärung vom 27. Januar 2025			



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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 vom 27. Januar 2025. Prüfbericht des Instituts Institut für Baubiologie Rosenheim GmbH vom 19.06.2023 (Nr. 3023 – 1349)			



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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	EU taxonomy compliant

Verification: Herstellererklärung vom 27. Januar 2025. Prüfbericht des Instituts Institut für Baubiologie Rosenheim GmbH vom 19.06.2023 (Nr. 3023 – 1349)



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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, carcinogens	Normal quality
Verification: Prüfbericht des Instituts Institut für Baubiologie Rosenheim GmbH vom 19.06.2023 (Nr. 3023 – 1349)			



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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.



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.



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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.

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

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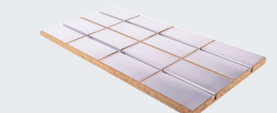
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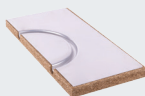


System IDEAL CLASSIC ÖKO ST 30

Produktdaten



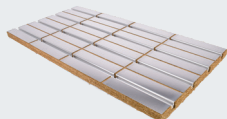
Heizelement AZ (VA = 250 mm)
1.000 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 161



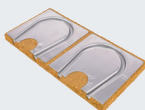
Kopfelement K/AZ ALU (1 Bogen)
250 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 163



Kopfelement K/AZ (1 Bogen)
250 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 164



Heizelement RZ (VA = 125 mm)
1.000 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 162



Kopfelement K/RZ ALU (2 Bögen)
250 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 165



Kopfelement K/RZ (2 Bögen)
250 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 166



Randelement RA
1.000 x 500 x 30 mm (LxBxH)
Art.-Nr. 2 02 168



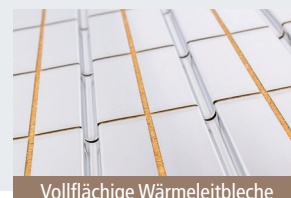
Übergangselement AZ/RZ (1-fach)
250 x 375 x 30 mm (LxBxH)
Art.-Nr. 2 02 167



Strohdämmung



Omega-Form der Rohrkanäle



Vollflächige Wärmeleitbleche

Material	Grundplatte	Strohdämmung 150 kPa; produziert und überwacht nach EN 13171
	Wärmeleitblech	Aluminium, mit Rohrführungen (Omega-Form), gebördelt
Daten	Wärmeleitfähigkeit	0,055 W/mK
	Wärmeleitwiderstand	0,54 m² K/W 0,52 m² K/W (VA = 250 mm) 0,49 m² K/W (VA = 125 mm)
	Druckspannung	≥150 kPa bei 10 % Stauchung nach DIN EN 826
	Brandverhalten	Euroklasse E nach DIN EN 13501-1
	Rohrdurchmesser	ø 16 mm
	Verlegeabstand	125 mm 250 mm

Voraussetzung nach DIN 18202

		Stichmaße als Grenzwerte in mm bei Messpunktabständen in m				
Zeile	Bezug	0,1 m	1 m	4 m	10 m	15 m
4	Flächenfertige Böden mit erhöhten Anforderungen, z.B. mit selbstverlaufenden Spachtelmassen	1 mm	3 mm	9 mm	12 mm	15 mm

Zubehör

Produkt	L x B x H	Art.-Nr.
Wärmeleitblech Aluminium	495 x 242 mm	2 02 903
Lastverteilblech Stahl	800 x 200 x 1 mm	2 02 904
Randdämmstreifen ÖKO	25 m x 10 mm x 140 mm	2 02 113
Rahmenholz RH 30	1.000 x 45 x 30 mm	2 02 901
Rahmenholz RD 30	250 x 45 x 30 mm	2 02 902
Bogen 90°	250 x 250 x 30 mm	2 02 170
Zuleitungselement ZL	1.000 x 125 x 30 mm	2 02 169
Verteilerelement VE 30	1.000 x 545 x 30 mm	2 02 909



Detailinformation: D02000, D01001



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79111 Freiburg im Breisgau
Deutschland

Montag, 27. Januar 2025

Herstellererklärung IDEAL ÖKO ST

Sehr geehrte Frau Szczyglowski,

hiermit wird bestätigt, dass das System IDEAL ÖKO ST keine reproduktionsbiologisch toxischen
Borverbindungen bzw. gefährliche Substanzen nach REACh (1907/2006 EU) in letztgültiger Fassung, keine
CMR Stoffe und keine chemischen Schutzmittel enthalten.

Mit freundlichen Grüßen

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