SENTINEL HOLDING
INSTITUT

SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

14149-10-1021

fourteen Solid

Product group: Laminate

SWISS KRONO

SWISS KRONO Tec AG
Museggstr. 14
6004 Luzern

Product qualities:

- SHI Product Assessment 2024
- QNG Qualitätssiegel Nachhaltiges Gebäude
- DGNB NEW CONSTRUCTION 2023.2
- DGNB NEW CONSTRUCTION 2023
- DGNB NEW CONSTRUCTION 2018
- BNB-BN NEUBAU V2015
- EU TAXONOMY
- BREEAM DE NEUBAU 2018
- LEED v4.1 (outside US)

CERTIFIED SUSTAINABLE PRODUCT
SHI PRODUCT PASSPORT
SENTINEL HOLDING INSTITUT
www.sentinel-holding.eu

Köttner

Helmut Köttner
Scientific Director
Freiburg, 17 August 2026

Product:
fourteen Solid

SHI Product Passport no.:
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SWISS KRONO

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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	Wood-based floor coverings	TVOC ≤ 300 µg/m^3 Formaldehyd ≤ 36 µg/m^3	Indoor Air Quality Certified
Valid untill: 27 August 2027			

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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	2.3 Multi-layer wood parquet, bamboo coverings, and floor coverings on wood-based panels	VOC / Emissions / hazardous substances	QNG ready
Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062). Herstellererklärung vom 07.07.2025			

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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	47c Parkette, Laminatböden, MMF- und WPC-Bödenbeläge (innen)	VVOC, VOC, SVOC Emissionen und Gehalt an gefährlichen Stoffen	Quality level 3

Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062)

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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)	47c Wood-based materials in floor coverings	VVOCs, VOC, SVOC emissions and content of hazardous substances	Quality level 4
Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062)			

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	47c Floor coverings for indoor use (with wooden components)	VVOCs, VOC, SVOC emissions and content of hazardous substances	Quality level 4
Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062)			

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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	47a Industrially manufactured products	Formaldehyde	Quality level 4

Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062)

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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	2b Wood-based floor coverings – also systems	VOC / hazardous substances	Quality level 3
Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062). Herstellererklärung vom 07.07.2025			

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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	Floor coverings (including associated adhesives and sealants)	Stoffe nach Anlage C, Formaldehyd, Karzinogene VOC Kategorie 1A/1B	compliant
Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062). Herstellererklärung vom 07.07.2025			

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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	Flooring materials (including floor levelling compounds and resin flooring)	Emissions: Formaldehyde, TVOC, TSVOC, carcinogens	Exemplary quality

Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062)

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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	Bodenbeläge	Emissionen: Formaldehyd, VOC, Krebserregende Stoffe	compliant
Verification: Prüfbericht des Instituts Fraunhofer WKI vom 27.08.2025 (Nr. MAIC-2025-2062)			

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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.

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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%BCfkriterien%20f%C3%BCr%20Produkte

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SGS TÜV SAAR

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www.sentinel-holding.eu

FOURTEEN solid

1. Produktbeschreibung

1.1. Dielenformat	1845 x 239 x 14 mm	
1.2. Verpackung	3 Dielen pro Paket = 1,323 m^2	
1.3. Aufbau		
- Oberfläche	Dreidimensional vernetztes Melaminharz mit Korund	
- Dekor	Dreidimensional vernetztes Melaminharz	
- Mittellage	Hochverdichtete Holzfaserplatte, HDF	
- Gegenzug	Dreidimensional vernetztes Melaminharz	
1.4. Verlegung	Mechanisches Verriegelungssystem – Clic-System, neues innovatives Clic-System, 50% Zeitersparnis, schwimmend verlegt nach der Verlegeanweisung	
1.5. Klassifizierung	ISO 10874	Klasse 23: Wohnen: Starke Beanspruchung Klasse 33: Gewerblich: Starke Beanspruchung
	nach DIN EN 13329	
	EN 14041 CE – Kennzeichnung	
1.6. Brandverhalten	EN 13501	C_{fl} – s1
1.7. Emissionsverhalten	E1 garantiert unter 0,05 ppm	
1.8. Gleitverhalten	Technische Klasse DS	
1.9. Fussbodenheizung	Wärmedurchlaßwiderstand nach DIN EN 12667 R =0,10 [(m^2 * K)/W]	
2.0. Beständigkeit gegen Wasser	ISO 4760 (NALFA), mind. Klasse 2 (Quellung ≤ 0,3 mm)	



FOURTEEN solid

	Eigenschaft	Anforderung	Einheit	Prüfverfahren
1.	Dicke	**14**	mm	**EN 17539**
2.	Beanspruchungsklasse	**21 - 33**		**EN 13329**
3.	Beständigkeit gegen Abrieb	**AC5**		**ISO 24338** Verfahren A
4.	Beständigkeit gegen Stoßbeanspruchung	**kleine Kugel ≥ 70 mm** **große Kugel ≥ 750 mm**		**EN 17368** Anhang C
5.	Dickenquellung	**≤ 15**	%	**ISO 24336**
6.	Fleckenunempfindlichkeit	**Grad 5 (Gruppe 1 bis 2)** **Grad 4 (Gruppe 3)**		**EN 438-2**
7.	Abhebefestigkeit	**≥ 1,25**	N/mm^2	**EN 311**
8.	Verbindungsfestigkeit	**Fl 0,2 ≥ 1** **Fs 0,2 ≥ 2**	kN/m	**ISO 24334**
9.	Breite der Deckschicht	**max ± 0,2**	mm	**EN 17539**
10.	Länge der Deckschicht	**l ≤ 1500 mm: Δl ≤ 0,5** **l > 1500 mm: Δl ≤ 0,3**	mm/m	**EN 17539**
11.	Rechtwinkligkeit	**max ≤ 0,2**	mm	**EN 17539**
12.	Kantengeradheit	**max ≤ 0,3**	mm/m	**EN 17539**
13.	Höhenunterschiede	**max ≤ 0,15**	mm	**EN 17539**
14.	Fugenöffnungen	**max ≤ 0,2**	mm	**EN 17539**
15.	Formaldehyd	**≤ 0.05**	ppm	**EN 717-1**

Erstellt (Datum, Unterschrift) QS	Geprüft und Freigegeben (Datum, Unterschrift) 01.02.2026 NB	

SWISS KRONO TEX GmbH & Co. KG · Wittstocker Chaussee 1 · D-16909 Heiligengrabe

Supplier Declaration

Heiligengrabe, 7. Juli 2025

Manufacturer: SWISS KRONO TEX GmbH & Co. KG
Wittstocker Chaussee 1
16909 Heiligengrabe, Germany

Products

- Laminate Floors
- OSB-Boards
- MDF/HDF-Boards
- Wall Panels
- Printed Decor Paper

We hereby declare that, to the best of our current knowledge, the above-mentioned products comply with the requirements of the following regulations and directives.

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)

Our products and packaging are free of substances listed in Annex XIV of Regulation (EC) No. 1907/2006[1] or on the candidate list of substances of very high concern and for which notification is required on the basis of the weight content.
Date of the SVHC candidate list (echa.europa.eu/candidate-list-table): 2025-06-25.

POP (Persistent organic pollutants)

No substances are used in our products and packaging that are banned or restricted under Article 3 of Regulation (EU) No. 2019/1021[2].

ROHS (Restriction of hazardous substances in electrical and electronic equipment)

No substances are used in our products that are restricted or banned according to Directive 2011/65/EU[3] and Delegated Directive (EU) 2015/863[4].

[Quality Department]

[1] Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
[2] Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
[3] Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
[4] Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances