



SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

15309-10-1012

Rigid 4 - 6 mm

Product group: Vinyl - Design floors



Unilin Flooring Deutschland GmbH
Reisholzer Werftstraße 33
40589 Düsseldorf



Product qualities:



Köttner

Helmut Köttner
Scientific Director

Freiburg, 02 February 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	Other floor coverings	TVOC $\leq 160 \mu\text{g}/\text{m}^3$ Formaldehyd $\leq 10 \mu\text{g}/\text{m}^3$	Indoor Air Quality Certified
Valid untill: 24 May 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	2.2 Resilient floor coverings – including multilayer systems	VOC / Emissions / hazardous substances / polycyclic aromatic hydrocarbons (PAH) / SVHC / heavy metals	QNG ready

Verification: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07). Herstellererklärung vom 14.03.2025.



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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)	7 Floor coverings (Resilient floor coverings)	VVOCs, VOC, SVOC emissions and content of hazardous substances	Quality level 3

Verification: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07). Herstellererklärung vom 14.03.2025.

Criteria	Assessment
SOC1.2 Indoor air quality (*)	May positively contribute to the overall building score

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	7 Floor coverings for indoor use (elastic floor coverings)	VVOCs, VOC, SVOC emissions and content of hazardous substances	Quality level 3

Verification: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07). Herstellererklärung vom 14.03.2025.

Product:

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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	7 Floor coverings (Resilient floor coverings)	VOC / SVOC / hazardous substances	Quality level 4
Verification: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07). Herstellererklärung vom 14.03.2025.			



Product:

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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	2a Elastic floor coverings – with and without bonded underlay or insulation layer	VOC / hazardous substances / heavy metals	Quality level 3

Verification: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07). Herstellererklärung vom 14.03.2025.



Product:

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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)	Substances according to Annex C, formaldehyde, carcinogenic VOCs category 1A/1B	EU taxonomy compliant
Verification: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07). Herstellererklärung vom 14.03.2025.			

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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: EPH Test Certificate vom 06.06.2023 (Nr. CT-23-06-06-01) / 24.05.2023 (Nr. CT-23-05-24-01, Nr. CT-23-05-24-04, Nr. CT-23-05-24-07).



Product:

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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.



The IBU ("Institut Bauen und Umwelt e.V.") is an initiative of building product manufacturers committed to sustainability in construction. It serves as the programme operator for Environmental Product Declarations (EPDs) in accordance with the EN 15804 standard. The IBU EPD programme provides comprehensive life cycle assessments and environmental impact data for construction products, supported by independent third-party verification.



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.

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.

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

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Publisher

Sentinel Holding Institut GmbH
Bötzing Str. 38
79111 Freiburg im Breisgau
Germany
Tel.: +49 761 590 481-70
info@sentinel-holding.eu
www.sentinel-holding.eu

TECHNISCHES DATENBLATT

Ausgabe 07/2024

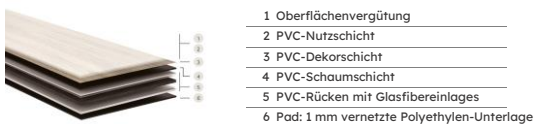
ABMESSUNGEN

FORMAT		Fischgrät	Standardgroße Planke	Mittelgroße Planke
Breite	EN 17539:2021-08	126 mm	189 mm	209 mm
Länge	EN 17539:2021-08	630 mm	1318 mm	1494 mm
Anzahl der Paneele pro Packung		10	8	6
m² pro Packung		0,794 m²	1,993 m²	1,873 m²
Gewicht pro Packung		7,04 kg	17,59 kg	16,00 kg
Nut und Feder		Unizip	Uniclic-Uniclic	Uniclic-Uniclic

FORMAT		Schmale Fliese	Mittelgroße Fliese
Breite	EN 17539:2021-08	303 mm	428 mm
Länge	EN 17539:2021-08	610 mm	856 mm
Anzahl der Paneele pro Packung		10	6
m² pro Packung		1,848 m²	2,198 m²
Gewicht pro Packung		16,34 kg	19,44 kg
Nut und Feder		Uniclic-Uniclic	Uniclic-Uniclic

Gesamtgewicht per Verpackungseinheit	EN ISO 23997:2012-02	1350±50 kg/m³
Gesamtstärke	EN 17539:2021-08	6 mm (= 5 + 1 mm attached underlay)
Veredelung		Twinguard®

PANELAUFBAU



WERKSGARANTIE

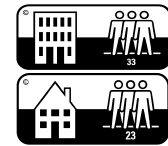
METHODE	PARAMETER	WERTE
Beanspruchungsklasse	EN ISO 10874	Klasse
Produktnorm	EN 16511:2023-05	23 - 33
CE	EN 14041:2004+AC:2005+AC:2006	Notifizierte Stelle
UKCA	EN 14041:2004+AC:2005+AC:2006	Approved body
Garantie	Wohnzwecke	Siehe Garantiebedingungen
	Gewerbliche Nutzung	Siehe Garantiebedingungen

ALLGEMEINE ANGABEN

METHODE	PARAMETER	NORMANFORDERUNGEN	MODULEO WERTE
Geradlinigkeit und Rechtwinkligkeit	EN 17539:2021-08	$q_{max} \leq 0,20 \text{ mm} \mid s_{max} \leq 0,30 \text{ mm/m}$	OK
Lichtechtheit	EN ISO 105-B02:2014-08	Klasse ≥ 6	Klasse > 7
Maßänderung	EN ISO 23999:2021-11	$\leq 0,15 \%$	OK
Schüsselung	EN ISO 23999:2021-11	$\leq 2 \text{ mm}$	Durchschnittswert: $\leq 1 \text{ mm}$
Abriebbeständigkeit	ISO 24338:2022-03, Procedure B	$\geq 5000 \text{ Zyklen}$	Durchschnittswert: $\geq 7000 \text{ Zyklen}$
Schlagfestigkeit	EN 13329:2006+A1:2008-08, Annex F	$\geq 1600 \text{ mm}$	Durchschnittswert: $\geq 1800 \text{ mm}$
Kratzbeständigkeit	EN 16094:2021-06, method A and B	$I \leq 1,5 \text{ Unit change I at } 60^\circ$	$\Delta R' \leq 1$
Bürostühle	EN ISO 4918:2021-03	25000 Zyklen	$\leq \text{MSR-B2}$
Möbelfußverschiebung	EN ISO 16581:2019-06	Fuß 0,1 mm / 32 kg	OK
Eindruck	EN ISO 24343-1:2012-01	$\leq 0,2 \text{ mm}$	OK
Fleckenunempfindlichkeit	EN 438-2:2016+A1:2018-12	Aceton - Kaffee - NaOH - H2O2 - Schuhcreme	Durchschnittswert: $\leq 0,05 \text{ mm}$
Schwellung	ISO 24336:2005-03	$\leq 18\%$	Klasse 5 (Keine Änderung)
Schließkraft	ISO 24334:2019-07	$F_{max} \text{ Längsseite} \geq 1,0 \text{ kN/m}$ $F_{max} \text{ kurzen Seite} \geq 1,5 \text{ kN/m}$	Keine Schwellung
Wasserbeständigkeit	ISO 4760:2022-05	Qualitative Bewertung für die Quellung nach der Erholung Quantitative Bewertung für Quellung nach der Erholung	OK
Trittschalldämmung	DIN EN ISO 717-2:2013-06	Trittschallverringerng	OK
Fußbodenheizung		Geeignet für alle standardisierten Warmwasser-Fußbodenheizungen in zementären Untergründen. Nur bedingt geeignet für elektrische oder alternative Fußbodenheizungen. Maximale Temperatur $\leq 27^\circ\text{C}$ in den Belagrücken einwirkend. Bitte beachten	Klasse 1 (Keine Änderung) $\leq 0,02 \text{ mm}$ $\Delta L_w = 21 \text{ dB}$

UMWELT, SICHERHEIT UND GESUNDHEIT

	METHODE	PARAMETER	NORMANFORDERUNGEN	MODULEO WERTE
AFFSET				A+
Floorscore				SCS-FS-02828
Finnish Building Emission			M1:Sehr emissionsarm, geruchlos	OK
Formaldehydemission	EN 717-1:2004-10	Kein Formaldehyd während der Produktion z E1 ($\leq 0,124 \text{ mg/m}^3$)		< Nachweisgrenze
TVOC 28 Tage	ISO 16000 part 9-6	AgBB-Anforderung nach 28 Tagen $<1000 \mu\text{g} / \text{m}^3$		< $20 \mu\text{g/m}^3$
Brandklasse	EN 13501-1:2018			Bfl-s1
Wärmewiderstand	EN 12667:2001-01			$0,035 \text{ m}^2 \text{ K/W}$
Rutschfestigkeit	EN 13893:2002-11		$\mu \geq 0,30$	DS
	EN 16165:2021 Annex B			R9 - R10
	BS EN 16165:2021 Annex C (UKSRG)	Nass	PTV ₉₆	Niedriges Rutschpotential (PTV96 ≥ 36)
		Trocken	PTV ₉₆	Niedriges Rutschpotential (PTV96 ≥ 36)
	UNE-EN 16165:2022 Annex C			
	Anexo Nacional A (ES)	Trocken	PTV ₉₆	PTV ₉₆ ≥ 54
Inhalt	Schwermetalle+ Blei / Cadmium			NICHT vorhanden
Gefährliche Stoffe	Karzinogene, mutagene oder reprotoxische Stoffe Klasse 1A und 1B (Kandidatenliste)			NICHT vorhanden
REACH	Regulation (EC)			Konform
Weichmacher	Ortho-phthalatfreie Weichmacher			OK
Recycling-Inhalt	Nur INTERNAL Recycling-Material verwendet			$\geq 20\%$



TECHNISCHES DATENBLATT

Ausgabe 06/2024

ABMESSUNGEN

FORMAT		Planken	Fliesen
Breite	EN 17539:2021-08	189 mm	303 mm
Länge	EN 17539:2021-08	1251 mm	610 mm
Anzahl der Paneele pro Packung		9	10
m² pro Packung		2,128 m²	1,848 m²
Gewicht pro Packung		13,24 kg	13,17 kg
Gesamtgewicht per Verpackungseinheit	EN ISO 23997:2012-02	6558 g/m² [-10%; +13%]	
Gesamtstärke	EN 17539:2021-08	5 mm (= 4+1 mm attached underlay)	
Veredelung		Superguard Prime®	
Nut und Feder		Uniclic-Uniclic	

WERKSGARANTIE

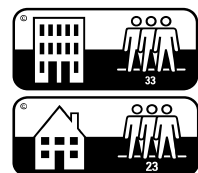
	METHODE	PARAMETER	WERTE	
Beanspruchungsklasse	EN ISO 10874		Klasse	23 - 33
Produktnorm	EN 16511:2023-05			
CE	EN 14041:2004+AC:2005+AC:2006	Notifizierte Stelle	NB 2401 - CRET	DOP: siehe Endetikett auf Packung
UKCA	EN 14041:2004+AC:2005+AC:2006	Approved body	AB 0321 - Satra UK	DOP: siehe Endetikett auf Packung
Garantie	Wohnzwecke	Siehe Garantiebedingungen	20	Jahre
	Gewerbliche Nutzung	Siehe Garantiebedingungen	0 Jahre - auf Anfrage bis 5 Jahre	

ALLGEMEINE ANGABEN

	METHODE	PARAMETER	NORMANFORDERUNGEN	WERTE
Geradlinigkeit und Rechtwinkligkeit	EN 17539:2021-08		$q_{max} \leq 0,20 \text{ mm} \mid s_{max} \leq 0,30 \text{ mm/m}$	OK
Lichtechtheit	EN ISO 105-B02:2014-08	Blau Referenz	Klasse ≥ 6	OK
Maßänderung	EN ISO 23999:2021-11	6 Stunden bei 80°C	$\leq 0,15\%$	OK
Schüsselung	EN ISO 23999:2021-11		$\leq 2\text{ mm}$	OK
Abriebbeständigkeit	ISO 24338:2022-03, Procedure B		≥ 5000 Zyklen	OK
Schlagfestigkeit	EN 13329:2006+A1:2008-08, Annex F		$\geq 1600 \text{ mm}$	OK
Kratzbeständigkeit	EN 16094:2021-06, method A and B		$I \leq 1,5$ Unit change I at 60°	OK
				$\leq \text{MSR-B2}$
Bürostühle	EN ISO 4918:2021-03	25000 Zyklen	Keine Delamination, keine Störung	OK
Möbelfußverschiebung	EN ISO 16581:2019-06	Fuß 0,1 mm / 32 kg	Keine sichtbaren Schäden	OK
Eindruck	EN ISO 24343-1:2012-01		$\leq 0,2 \text{ mm}$	OK
Fleckennempfindlichkeit	EN 438-2:2016+A1:2018-12	Aceton - Kaffee - NaOH - H2O2 - Schuhcreme		OK
Schließkraft	ISO 24334:2019-07	Fmax Längsseite	$\geq 1,0 \text{ kN/m}$	OK
		Fmax kurzen Seite	$\geq 1,5 \text{ kN/m}$	OK
Trittschalldämmung	DIN EN ISO 717-2:2013-06	Trittschallverringernug		$\Delta L_p = 19 \text{ dB}$
Fußbodenheizung		Geeignet für alle standardisierten Warmwasser-Fußbodenheizungen in zementären Untergründen. Nur bedingt geeignet für elektrische oder alternative Fußbodenheizungen. Maximale Temperatur $\leq 27^\circ\text{C}$ in den Belagrücken einwirkend. Bitte beachten Sie die Verlegeempfehlung.		

UMWELT, SICHERHEIT UND GESUNDHEIT

	METHODE	PARAMETER	NORMANFORDERUNGEN	WERTE
AFFSET				A+
Floorscore				SCS-FS-09272
Finnish Building Emission			M1: Sehr emissionsarm, geruchlos	OK
Formaldehydmission	EN 717-1:2004-10	Kein Formaldehyd während der Produktion zugef E1 ($\leq 0,124 \text{ mg/m}^3$)		< Nachweisgrenze
TVOC 28 Tage	ISO 16000 part 9-6	AgBB-Anforderung nach 28 Tagen $< 1000 \mu\text{g} / \text{m}^3$		< $20 \mu\text{g/m}^3$
Brandklasse	EN 13501-1:2018			Bfl-s1
Wärmewiderstand	EN 12667:2001-01			0,033 m² K/W
Rutschfestigkeit	EN 13893:2002-11		$\mu \geq 0,30$	DS
	EN 16165:2021-10 Annex B			R9 - R10
Inhalt	Schwermetalle+ Blei / Cadmium			NICHT vorhanden
Gefährliche Stoffe	Karzinogene, mutagene oder reprotoxische Stoffe Klasse 1A und 1B (Kandidatenliste)			NICHT vorhanden
REACH	Regulation (EC)			Konform
Weichmacher	Ortho-phthalatfreie Weichmacher			OK
Recycling-Inhalt	Nur INTERNAL Recycling-Material verwendet			$\geq 20\%$



TECHNISCHES DATENBLATT

Ausgabe 06/2024

ABMESSUNGEN

FORMAT		Planken	Fliesen
Breite	EN 17539:2021-08	189 mm	303 mm
Länge	EN 17539:2021-08	1251 mm	610 mm
Anzahl der Paneele pro Packung		9	10
m ² pro Packung		2,128 m ²	1,848 m ²
Gewicht pro Packung		13,24 kg	13,17 kg
Gesamtgewicht per Verpackungseinheit	EN ISO 23997:2012-02	6558 g/m ² [-10%; +13%]	
Gesamtstärke	EN 17539:2021-08	5 mm (= 4+1 mm attached underlay)	
Veredelung		Superguard Prime®	
Nut und Feder		Uniclic-Uniclic	

WERKSGARANTIE

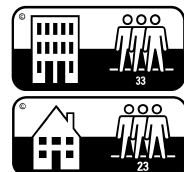
	METHODE	PARAMETER	WERTE	
Beanspruchungsklasse	EN ISO 10874		Klasse	23 - 33
Produktnorm	EN 16511:2023-05			
CE	EN 14041:2004+AC:2005+AC:2006	Notifizierte Stelle	NB 2401 - CRET	DOP: siehe Endetikett auf Packung
UKCA	EN 14041:2004+AC:2005+AC:2006	Approved body	AB 0321 - Satra UK	DOP: siehe Endetikett auf Packung
Garantie	Wohnzwecke	Siehe Garantiebedingungen	20	Jahre
	Gewerbliche Nutzung	Siehe Garantiebedingungen	0 Jahre - auf Anfrage bis 5 Jahre	

ALLGEMEINE ANGABEN

	METHODE	PARAMETER	NORMANFORDERUNGEN	WERTE
Geradlinigkeit und Rechtwinkligkeit	EN 17539:2021-08		$q_{max} \leq 0,20 \text{ mm} \mid s_{max} \leq 0,30 \text{ mm/m}$	OK
Lichtechtheit	EN ISO 105-B02:2014-08	Blau Referenz	Klasse ≥ 6	OK
Maßänderung	EN ISO 23999:2021-11	6 Stunden bei 80°C	$\leq 0,15\%$	OK
Schüsselung	EN ISO 23999:2021-11		$\leq 2\text{ mm}$	OK
Abriebbeständigkeit	ISO 24338:2022-03, Procedure B		≥ 5000 Zyklen	OK
Schlagfestigkeit	EN 13329:2006+A1:2008-08, Annex F		$\geq 1600 \text{ mm}$	OK
Kratzbeständigkeit	EN 16094:2021-06, method A and B		$I \leq 1,5$ Unit change I at 60°	OK
				$\leq \text{MSR-B2}$
Bürostühle	EN ISO 4918:2021-03	25000 Zyklen	Keine Delamination, keine Störung	OK
Möbelfußverschiebung	EN ISO 16581:2019-06	Fuß 0,1 mm / 32 kg	Keine sichtbaren Schäden	OK
Eindruck	EN ISO 24343-1:2012-01		$\leq 0,2 \text{ mm}$	OK
Fleckeneempfindlichkeit	EN 438-2:2016+A1:2018-12	Aceton - Kaffee - NaOH - H2O2 - Schuhcreme		OK
Schließkraft	ISO 24334:2019-07	Fmax Längsseite	$\geq 1,0 \text{ kN/m}$	OK
		Fmax kurzen Seite	$\geq 1,5 \text{ kN/m}$	OK
Trittschalldämmung	DIN EN ISO 717-2:2013-06	Trittschallverringerng		$\Delta L_p = 19 \text{ dB}$
Fußbodenheizung		Geeignet für alle standardisierten Warmwasser-Fußbodenheizungen in zementären Untergründen. Nur bedingt geeignet für elektrische oder alternative Fußbodenheizungen. Maximale Temperatur $\leq 27^\circ\text{C}$ in den Belagrücken einwirkend. Bitte beachten Sie die Verlegeempfehlung.		

UMWELT, SICHERHEIT UND GESUNDHEIT

	METHODE	PARAMETER	NORMANFORDERUNGEN	WERTE
AFFSET				A+
Floorscore				SCS-FS-09272
Formaldehydmission	EN 717-1:2004-10	Kein Formaldehyd während der Produktion zugef. E1 ($\leq 0,124 \text{ mg/m}^3$)		< Nachweisgrenze
TVOC 28 Tage	ISO 16000 part 9-6	AgBB-Anforderung nach 28 Tagen $<1000 \mu\text{g} / \text{m}^3$		$< 20 \mu\text{g/m}^3$
Brandklasse	EN 13501-1:2018			Bfl-s1
Wärmewiderstand	EN 12667:2001-01			0,033 m ² K/W
Rutschfestigkeit	EN 13893:2002-11		$\mu \geq 0,30$	DS
	EN 16165:2021-10 Annex B			R9 - R10
Inhalt	Schwermetalle+ Blei / Cadmium			NICHT vorhanden
Gefährliche Stoffe	Karzinogene, mutagene oder reprotoxische Stoffe Klasse 1A und 1B (Kandidatenliste)			NICHT vorhanden
REACH	Regulation (EC)			Konform
Weichmacher	Ortho-phthalatfreie Weichmacher			OK
Recycling-Inhalt	Nur INTERNAL Recycling-Material verwendet			$\geq 20\%$



Textura Acoustic



TECHNISCHES DATENBLATT

Ausgabe 06/2024

ABMESSUNGEN

FORMAT		Fischgrät	Mittelgroße Planke	Mittelgroße Fliese
Breite	EN 17539:2021-08	126 mm	209 mm	428 mm
Länge	EN 17539:2021-08	630 mm	1494 mm	856 mm
Anzahl der Paneele pro Packung		10	6	6
m ² pro Packung		0,794 m ²	1,873 m ²	2,198 m ²
Gewicht pro Packung		7,04 kg	16,00 kg	19,44 kg
Nut und Feder		Unizip	Uniclic-Uniclic	Uniclic-Uniclic
Gesamtgewicht per Verpackungseinheit	EN ISO 23997:2012-02	8109 g/m ² [-10%; +13%]		
Gesamtstärke	EN 17539:2021-08	6 mm (= 5+1 mm attached underlay)		
Veredelung		Superguard Prime®		

WERKSGARANTIE

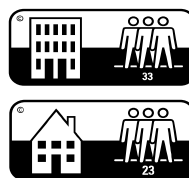
	METHODE	PARAMETER	WERTE	
Beanspruchungsklasse	EN ISO 10874		Klasse	23 - 33
Produktnorm	EN 16511:2023-05			
CE	EN 14041:2004+AC:2005+AC:2006	Notifizierte Stelle	NB 2401 - CRET	DOP: siehe Endetikett auf Packung
UKCA	EN 14041:2004+AC:2005+AC:2006	Approved body	AB 0321 - Satra UK	DOP: siehe Endetikett auf Packung
Garantie	Wohnzwecke	Siehe Garantiebedingungen	25	Jahre
	Gewerbliche Nutzung	Siehe Garantiebedingungen	0 Jahre - auf Anfrage bis 10 Jahre	

ALLGEMEINE ANGABEN

	METHODE	PARAMETER	NORMANFORDERUNGEN	WERTE
Geradlinigkeit und Rechtwinkligkeit	EN 17539:2021-08		$q_{max} \leq 0,20 \text{ mm} \mid s_{max} \leq 0,30 \text{ mm/m}$	OK
Lichtechtheit	EN ISO 105-B02:2014-08	Blau Referenz	Klasse ≥ 6	OK
Maßänderung	EN ISO 23999:2021-11	6 Stunden bei 80°C	$\leq 0,15\%$	OK
Schüsselung	EN ISO 23999:2021-11		$\leq 2\text{ mm}$	OK
Abriebbeständigkeit	ISO 24338:2022-03, Procedure B		≥ 5000 Zyklen	OK
Schlagfestigkeit	EN 13329:2006+A1:2008-08, Annex F		$\geq 1600 \text{ mm}$	OK
Kratzbeständigkeit	EN 16094:2021-06, method A and B		$l \leq 1,5 \text{ Unit change l at } 60^\circ$	OK
				$\leq \text{MSR-B2}$
Bürostühle	EN ISO 4918:2021-03	25000 Zyklen	Keine Delamination, keine Störung	OK
Möbelfußverschiebung	EN ISO 16581:2019-06	Fuß 0,1 mm / 32 kg	Keine sichtbaren Schäden	OK
Eindruck	EN ISO 24343-1:2012-01		$\leq 0,2 \text{ mm}$	OK
Fleckenuempfindlichkeit	EN 438-2:2016+A1:2018-12	Aceton - Kaffee - NaOH - H2O2 - Schuhcreme		OK
Schließkraft	ISO 24334:2019-07	Fmax Längsseite	$\geq 1,0 \text{ kN/m}$	OK
		Fmax kurzen Seite	$\geq 1,5 \text{ kN/m}$	OK
Trittschalldämmung	DIN EN ISO 717-2:2013-06	Trittschallverringernug		$\Delta L_w = 21 \text{ dB}$
Fußbodenheizung		Geeignet für alle standardisierten Warmwasser-Fußbodenheizungen in zementären Untergründen. Nur bedingt geeignet für elektrische oder alternative Fußbodenheizungen. Maximale Temperatur $\leq 27^\circ\text{C}$ in den Belagrücken einwirkend. Bitte beachten Sie die Verlegeempfehlung.		

UMWELT, SICHERHEIT UND GESUNDHEIT

	METHODE	PARAMETER	NORMANFORDERUNGEN	WERTE
AFFSET				A+
Floorscore				SCS-FS-02828
Finnish Building Emission			M1: Sehr emissionsarm, geruchlos	OK
Formaldehydemission	EN 717-1:2004-10	Kein Formaldehyd während der Produktion zugef E1 ($\leq 0,124 \text{ mg/m}^3$)		< Nachweisgrenze
TVOC 28 Tage	ISO 16000 part 9-6	AgBB-Anforderung nach 28 Tagen $<1000 \mu\text{g} / \text{m}^3$		< $20 \mu\text{g/m}^3$
Brandklasse	EN 13501-1:2018			Bfl-s1
Wärmewiderstand	EN 12667:2001-01			0,035 m ² K/W
Rutschfestigkeit	EN 13893:2002-11		$\mu \geq 0,30$	DS
	EN 16165:2021-10 Annex B			R9 - R10
Inhalt	Schwermetalle+ Blei / Cadmium			NICHT vorhanden
Gefährliche Stoffe	Karzinogene, mutagene oder reprotoxische Stoffe Klasse 1A und 1B (Kandidatenliste)			NICHT vorhanden
REACH	Regulation (EC)			Konform
Weichmacher	Ortho-phthalatfreie Weichmacher			OK
Recycling-Inhalt	Nur INTERNAL Recycling-Material verwendet			$\geq 20\%$



TECHNISCHES DATENBLATT

Ausgabe 07/2024

ABMESSUNGEN

FORMAT		BLOOM [AVMPU(-)] Mittelgroße Planke	CIRO [AVHBU(-)] Fischgrät	ILLUME [AVMTU(-)] Mittelgroße Fliese
Breite	EN 17539:2021-08	209 mm	126 mm	428 mm
Länge	EN 17539:2021-08	1494 mm	630 mm	856 mm
Anzahl der Paneele pro Packung		6	10	6
m² pro Packung		1,873 m²	0,794 m²	2,198 m²
Gewicht pro Packung		16,00 kg	7,04 kg	19,44 kg
Nut und Feder		Uniclic®-Verbindung	Unizip®-Verbindung	Uniclic®-Verbindung
Gesamtgewicht per Verpackungseinheit	EN ISO 23997:2012-02	1350±50 kg/m³		
Gesamtstärke	EN 17539:2021-08	6 mm (= 5+1 mm attached underlay)		
Veredelung		Erweiterte PU-Beschichtung mit Scratch & Stain Guard-Technology		
Fasen		Genuine		

PANELAUFBAU



- 1 Oberflächenvergütung
- 2 PVC-Nutzschicht
- 3 PVC-Dekorschicht
- 4 PVC-Schaumschicht
- 5 PVC-Rücken mit Glasfibreinlagen
- 6 Pad: 1 mm vernetzte Polyethylen-Unterlage

WERKSGARANTIE

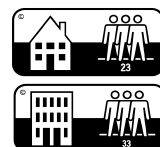
	METHODE	PARAMETER	WERTE
Beanspruchungsklasse	EN ISO 10874	Klasse	23 - 33
Produktnorm	EN 16511:2023-05		
CE	EN 14041:2004+AC:2005+AC:2006	Notifizierte Stelle	NB 2401 - CRET
UKCA	EN 14041:2004+AC:2005+AC:2006	Approved body	AB 0321 - Satra UK
Garantie	Wohnzwecke	Siehe Garantiebedingungen	Lebenslang
	Gewerbliche Nutzung	Siehe Garantiebedingungen	5 Jahre - auf Anfrage bis 15 Jahre

ALLGEMEINE ANGABEN

	METHODE	PARAMETER	NORMANFORDERUNGEN	QUICK-STEP WERTE
Geradlinigkeit und Rechtwinkligkeit	EN 17539:2021-08		$q_{max} \leq 0,20 \text{ mm} \mid s_{max} \leq 0,30 \text{ mm/m}$	OK
Lichtechtheit	EN ISO 105-B02:2014-08	Blau Referenz	Klasse ≥ 6	Klasse > 7
Maßänderung	EN ISO 23999:2021-11	6 Stunden bei 80°C	$\leq 10,15\%$	OK
Schüsselung	EN ISO 23999:2021-11		$\leq 12 \text{ mm}$	Durchschnittswert: $\leq 11 \text{ mm}$
Abriebbeständigkeit	ISO 24338:2022-03, Procedure B		$\geq 5000 \text{ Zyklen}$	Durchschnittswert: $\geq 7000 \text{ Zyklen}$
Schlagfestigkeit	EN 13329:2006+A1:2008-08, Annex F		$\geq 1600 \text{ mm}$	Durchschnittswert: $\geq 1800 \text{ mm}$
Kratzbeständigkeit	EN 16094:2021-06, method A and B		$1 \leq 1,5 \text{ Unit change I at } 60^\circ$	$\Delta R' = 0$ MSR-B1
Bürostühle	EN ISO 4918:2021-03	25000 Zyklen	Keine Delamination, keine Störung	OK
Möbelfußverschiebung	EN ISO 16581:2019-06	Fuß 0,1 mm / 32 kg	Keine sichtbaren Schäden	OK
Eindruck	EN ISO 24343-1:2012-01		$\leq 0,2 \text{ mm}$	Durchschnittswert: $\leq 0,05 \text{ mm}$
Fleckenunempfindlichkeit	EN 438-2:2016+A1:2018-12	Aceton - Kaffee - NaOH - H2O2 - Schuhcreme		Klasse 5 (Keine Änderung)
Schwellung	ISO 24336:2005-03		$\leq 18\%$	Keine Schwellung
Schließkraft	ISO 24334:2019-07	Fmax Längsseite	$\geq 1,0 \text{ kN/m}$	OK
		Fmax kurzen Seite	$\geq 1,5 \text{ kN/m}$	OK
Wasserbeständigkeit	ISO 4760:2022-05	Qualitative Bewertung für die Quellung nach der Erholung Quantitative Bewertung für Quellung nach der Erholung Wasserdurchlässige mechanische Verbindung		Klasse 1 (Keine Änderung) $\leq 0,02 \text{ mm}$ Beständigkeit mechanischer Verbindungen g
Trittschalldämmung	DIN EN ISO 717-2:2013-06	Trittschallverringerng		$\Delta L_w = 21 \text{ dB}$
Fußbodenheizung		Geeignet für alle standardisierten Warmwasser-Fußbodenheizungen in zementären Untergründen. Nur bedingt geeignet für elektrische oder alternative Fußbodenheizungen. Maximale Temperatur $\leq 27^\circ\text{C}$ in den Belagrücken einwirkend. Bitte beachten Sie die Verlegeempfehlung.		

UMWELT, SICHERHEIT UND GESUNDHEIT

	METHODE	PARAMETER	NORMANFORDERUNGEN	QUICK-STEP WERTE
AFFSET				A+
Floorscore				SCS-FS-05158
Finnish Building Emission			M1:Sehr emissionsarm, geruchlos	OK
Formaldehydemission	EN 717-1:2004-10	Kein Formaldehyd während der Produktion zugefügt ($\leq 0,124 \text{ mg/m}^3$)		< Nachweisgrenze
TVOC 28 Tage	ISO 16000 part 9-6	AgBB-Anforderung nach 28 Tagen $<1000 \mu\text{g} / \text{m}^3$		$< 20 \mu\text{g/m}^3$
Brandklasse	EN 13501-1:2018			Bfl-s1
Wärmewiderstand	EN 12667:2001-01			0,035 $\text{m}^2 \text{K/W}$
Rutschfestigkeit	EN 13893:2002-11		$\mu \geq 0,30$	DS
	EN 16165:2021-10 Annex B			R10
	BS EN 16165:2021 Annex C (UKSRG)	Nass	PTV ₉₆	Niedriges Rutschpotential (PTV ₉₆ ≥ 36)
		Trocken	PTV ₉₆	Niedriges Rutschpotential (PTV ₉₆ ≥ 36)
	UNE-EN 16165:2022 Annex C Anexo Nacional A (ES)	Nass	PTV ₅₇	PTV ₅₇ ≥ 22
		Trocken	PTV ₉₆	PTV ₉₆ ≥ 56
Inhalt	Schwermetalle+ Blei / Cadmium			NICHT vorhanden
Gefährliche Stoffe	Karzinogene, mutagene oder reprotoxische Stoffe Klasse 1A und 1B (Kandidatenliste)			NICHT vorhanden
REACH	Regulation (EC)			Konform
Weichmacher	Ortho-phthalatfreie Weichmacher			OK
Recycling-Inhalt	Nur INTERNAL Recycling-Material verwendet			$\geq 20\%$



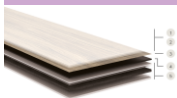
TECHNISCHES DATENBLATT

Ausgabe 07/2024

ABMESSUNGEN

FORMAT		BLOS BASE [AVSPT(-)]	ORO BASE [AVSTT(-)]
		Schmale Planke	Schmale Fliese
Breite	EN 17539:2021-08	189 mm	303 mm
Länge	EN 17539:2021-08	1251 mm	610 mm
Anzahl der Paneele pro Packung		12	15
m² pro Packung		2,837 m²	2,772 m²
Gewicht pro Packung		18,60 kg	18,20 kg
Gesamtgewicht per Verpackungseinheit		1610±50 kg/m³	
Gesamtstärke	EN 17539:2021-08	4 mm	
Veredelung		Erweiterte PU-Beschichtung mit Scratch & Stain Guard-Technology	
Nut und Feder		Uniclic®-Verbindung	
Fasen		Genuine	

PANELAUFBAU



- 1 Oberflächenvergütung
- 2 PVC-Nutzschicht
- 3 PVC-Dekorschicht
- 4 PVC-Schaumschicht
- 5 PVC-Rücken mit Glasfibreinlagen

WERKSGARANTIE

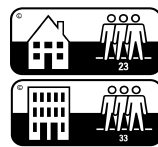
	METHODE	PARAMETER	WERTE
Beanspruchungsklasse	EN ISO 10874	Klasse	23 - 33
Produktnorm	EN 16511:2023-05		
CE	EN 14041:2004+AC:2005+AC:2006	Notifizierte Stelle	NB 2401 - CRET
UKCA	EN 14041:2004+AC:2005+AC:2006	Approved body	AB 0321 - Satra UK
Garantie	Wohnzwecke	Siehe Garantiebedingungen	Lebenslang
	Gewerbliche Nutzung	Siehe Garantiebedingungen	5 Jahre - auf Anfrage bis 15 Jahre

ALLGEMEINE ANGABEN

	METHODE	PARAMETER	NORMANFORDERUNGEN	QUICK-STEP WERTE
Geradlinigkeit und Rechtwinkligkeit	EN 17539:2021-08		$q_{max} \leq 0,20 \text{ mm} \mid s_{max} \leq 0,30 \text{ mm/m}$	OK
Lichtechtheit	EN ISO 105-B02:2014-08	Blau Referenz	Klasse ≥ 6	Klasse > 7
Maßänderung	EN ISO 23999:2021-11	6 Stunden bei 80°C	$\leq 10,15\%$	OK
Schüsselung	EN ISO 23999:2021-11		$\leq 12 \text{ mm}$	Durchschnittswert: $\leq 11 \text{ mm}$
Abriebbeständigkeit	ISO 24338:2022-03, Procedure B		$\geq 5000 \text{ Zyklen}$	Durchschnittswert: $\geq 7000 \text{ Zyklen}$
Schlagfestigkeit	EN 13329:2006+A1:2008-08, Annex F		$\geq 1600 \text{ mm}$	Durchschnittswert: $\geq 1800 \text{ mm}$
Kratzbeständigkeit	EN 16094:2021-06, method A and B		$1 \leq 1,5 \text{ Unit change I at } 60^\circ$	$\Delta R' = 0$ MSR-B1
Bürostühle	EN ISO 4918:2021-03	Ohne Unterlag	Keine Delamination, keine Störung	$\geq 25000 \text{ Zyklen}$
		Auf einer HEAT Unterlage	Keine Delamination, keine Störung	$\geq 25000 \text{ Zyklen}$
		<u>nur für den Wohnbereich geeignet</u> Auf einer COMFORT Unterlage	Keine Delamination, keine Störung	$\geq 10000 \text{ Zyklen}$
Möbelfußverschiebung	EN ISO 16581:2019-06	Fuß 0,1 mm / 32 kg	Keine sichtbaren Schäden	OK
Eindruck	EN ISO 24343-1:2012-01		$\leq 0,1 \text{ mm}$	Durchschnittswert: $\leq 0,05 \text{ mm}$
Fleckenunempfindlichkeit	EN 438-2:2016+A1:2018-12	Aceton - Kaffee - NaOH - H2O2 - Schuhcreme		Klasse 5 (Keine Änderung)
Schwellung	ISO 24336:2005-03		$\leq 18\%$	Keine Schwellung
Schließkraft	ISO 24334:2019-07	Fmax Längsseite	$\geq 1,0 \text{ kN/m}$	OK
		Fmax kurzen Seite	$\geq 1,5 \text{ kN/m}$	OK
Wasserbeständigkeit	ISO 4760:2022-05	Qualitative Bewertung für die Quellung nach der Erholung		Klasse 1 (Keine Änderung)
		Quantitative Bewertung für Quellung nach der Erholung		$\leq 0,02 \text{ mm}$
		Wasserdurchlässige mechanische Verbindung		Beständigkeit mechanischer Verbindungen g
Trittschalldämmung	DIN EN ISO 717-2:2013-06	Trittschallverringern	Auf einer HEAT Unterlage	$\Delta L_w = 14 \text{ dB}$
			Auf einer COMFORT Unterlage	$\Delta L_w = 18 \text{ dB}$
			Auf einer TRANSIT Unterlage	$\Delta L_w = 18 \text{ dB}$
Fußbodenheizung		Geeignet für alle standardisierten Warmwasser-Fußbodenheizungen in zementären Untergründen. Nur bedingt geeignet für elektrische oder alternative Fußbodenheizungen. Maximale Temperatur $\leq 27^\circ\text{C}$ in den Belagrücken einwirkend. Bitte beachten Sie die Verlegeempfehlung.		

UMWELT, SICHERHEIT UND GESUNDHEIT

	METHODE	PARAMETER	NORMANFORDERUNGEN	QUICK-STEP WERTE
AFFSET				A+
Floorscore				SCS-FS-05158
Finnish Building Emission			M1: Sehr emissionsarm, geruchlos	OK
Formaldehydemission	EN 717-1:2004-10	Kein Formaldehyd während der Produktion zugefügt E1 ($\leq 0,124 \text{ mg/m}^3$)		< Nachweisgrenze
TVOC 28 Tage	ISO 16000 part 9-6	AgBB-Anforderung nach 28 Tagen $< 1000 \mu\text{g} / \text{m}^3$		< $20 \mu\text{g/m}^3$
Brandklasse	EN 13501-1:2018			Bfl-s1
Wärmewiderstand	EN 12667:2001-01	Ohne Unterlag Auf einer HEAT Unterlage Auf einer COMFORT Unterlage Auf einer TRANSIT Unterlage		0,013 $\text{m}^2 \text{K/W}$ 0,023 $\text{m}^2 \text{K/W}$ 0,033 $\text{m}^2 \text{K/W}$ 0,058 $\text{m}^2 \text{K/W}$
Rutschfestigkeit	EN 13893:2002-11 EN 16165:2021-10 Annex B BS EN 16165:2021 Annex C (UKSRG)	Nass Trocken	$\mu \geq 0,30$ PTV ₉₆ PTV ₉₆	DS R10 Niedriges Rutschpotential (PTV ₉₆ ≥ 36) Niedriges Rutschpotential (PTV ₉₆ ≥ 36)
	UNE-EN 16165:2022 Annex C Anexo Nacional A (ES)	Nass Trocken	PTV ₅₇ PTV ₉₆	PTV ₅₇ ≥ 22 PTV ₉₆ ≥ 58
Inhalt	Schwermetalle+ Blei / Cadmium			NICHT vorhanden
Gefährliche Stoffe	Karzinogene, mutagene oder reprotoxische Stoffe Klasse 1A und 1B (Kandidatenliste)			NICHT vorhanden
REACH	Regulation (EC)			Konform
Weichmacher	Ortho-phthalatfreie Weichmacher			OK
Recycling-Inhalt	Nur INTERNAL Recycling-Material verwendet			$\geq 20\%$



Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial
Registration number REACH : Not applicable (article)
Product type REACH : Article

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses

Vinyl flooring

1.2.2 Uses advised against

No uses advised against

1.3. Details of the supplier of the Product Safety Information Sheet:

Supplier of the Product Safety Information Sheet

UNILIN Group
Ooigemstraat 3
B-8710 Wielsbeke-Ooigem
☎ +32 56 67 52 11
Technical.services@unilin.com

all brands produced and distributed by Unilin Group

1.4. Emergency telephone number

During business hours, 9:00-16:00 (CET) :
+32 56 67 52 11

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.2. Label elements

Labelling does not apply to articles

2.3. Other hazards

During processing dust may be released for which exposure limits are set out in the community

SECTION 3: Composition/information on ingredients

This article does not contain any notifiable substances

This article does not contain a substance of very high concern (SVHC) in accordance with Article 59(1) of Regulation (EC) No 1907/2006 at a concentration above 0,1 % (w/w)

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

If you feel unwell, consult a doctor/medical service.

After inhalation:

Not applicable. Measures apply only in case of excessive dust production when processing the material. Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

Not applicable.

After eye contact:

Not applicable. Measures apply only in case of excessive dust production when processing the material. Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms

After inhalation:

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No effects known.

After skin contact:

No effects known.

After eye contact:

No effects known.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

4.3. Indication of any immediate medical attention and special treatment needed

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Class A foam extinguisher, Water (quick-acting extinguisher, reel).

Major fire: Water, Class A foam.

5.1.2 Unsuitable extinguishing media:

Small fire: Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (hydrogen chloride, carbon monoxide - carbon dioxide).

5.3. Advice for firefighters

5.3.1 Instructions:

Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See section 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

6.2. Environmental precautions

No data available

6.3. Methods and material for containment and cleaning up

Pick-up the material.

6.4. Reference to other sections

See section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Store in a dry area. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

Not applicable

Publication date: 2022-09-28

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

Belgium

Chlorure de polyvinyle (fraction alvéolaire)	Time-weighted average exposure limit 8 h	1 mg/m ³
Verres (fibres ou poussières de)	Time-weighted average exposure limit 8 h	10 mg/m ³

France

Fibres de verre	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1 fibers/cm ³
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Austria

Polyvinylchlorid (Alveolarstaub)	Tagesmittelwert (MAK)	5 mg/m ³
	Kurzzeitwert 60(Miw) 2x (MAK)	10 mg/m ³

UK

MMMF (Machine-made mineral fibre) (except for refraction ceramic fibres and special purpose fibres)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	5 mg/m ³
Polyvinyl chloride inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m ³
Polyvinyl chloride respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m ³

USA (TLV-ACGIH)

Polyvinyl chloride	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m ³ (R)
Synthetic vitreous fibers: Continuous filam glass fibers	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 fibers/cm ³ (F)
Synthetic vitreous fibers: Glass wool fibers	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 fibers/cm ³ (F)

(R): Respirable fraction

(F): Respirable fibers: length > 5 µm; aspect ratio ≥ 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

If applicable and available it will be listed below.

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Avoid raising dust. Keep away from naked flames/heat. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

a) Respiratory protection:

Dust production: dust mask with filter type P1.

b) Hand protection:

Not required for normal conditions of use.

c) Eye protection:

Not required for normal conditions of use.

d) Skin protection:

Not required for normal conditions of use.

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Flexible solid material
Odour	Almost odourless
Odour threshold	No data available in the literature
Colour	Variable in colour, depending on the composition

Publication date: 2022-09-28

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

Particle size	No data available in the literature
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (article)
Dynamic viscosity	Not applicable (solid)
Kinematic viscosity	Not applicable (solid)
Melting point	No data available in the literature
Boiling point	No data available in the literature
Relative vapour density	Not applicable (solid)
Vapour pressure	No data available in the literature
Solubility	Water : insoluble
Relative density	1.7 - 2.0
Absolute density	1700 kg/m ³ - 2000 kg/m ³
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	Not applicable (solid)
pH	No data available in the literature

9.2. Other information

Softening point	80 °C
Evaporation rate	Not applicable (solid)

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Avoid raising dust. Keep away from naked flames/heat.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (hydrogen chloride, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Test results

Acute toxicity

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Corrosion/irritation

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Respiratory or skin sensitisation

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Specific target organ toxicity

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Mutagenicity (in vitro)

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Mutagenicity (in vivo)

Publication date: 2022-09-28

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Carcinogenicity

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Reproductive toxicity

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

Toxicity other effects

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

No (test)data available

12.2. Persistence and degradability

Water

Biodegradability in water: no data available

12.3. Bioaccumulative potential

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (article)			

Conclusion

No bioaccumulation data available

12.4. Mobility in soil

No (test)data on mobility of the component(s) available

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

No data available

Publication date: 2022-09-28

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

14.1. UN number	Transport	Not subject
14.2. UN proper shipping name		
14.3. Transport hazard class(es)		
	Hazard identification number	
	Class	
	Classification code	
14.4. Packing group		
	Packing group	
	Labels	
14.5. Environmental hazards		
	Environmentally hazardous substance mark	no
14.6. Special precautions for user		
	Special provisions	
	Limited quantities	
14.7. Maritime transport in bulk according to IMO instruments		
	Annex II of MARPOL 73/78	Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
	No data available in the literature

National legislation Belgium

No data available

National legislation The Netherlands

Waterbezwaarlijkheid	Not applicable (article)
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National legislation France

Catégorie cancérigène	Fibres de verre; (2); Certains ou tous ces composées sont classés C1A, C1B ou C2.
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National legislation Germany

WGK	Not applicable (article)
-----	--------------------------

National legislation Austria

No data available

National legislation United Kingdom

No data available

Other relevant data

TLV - Carcinogen	Synthetic vitreous fibers: Continuous filam glass fibers; A4
	Synthetic vitreous fibers: Glass wool fibers; A3
	Polyvinyl chloride; A4

15.2. Chemical safety assessment

No chemical safety assessment is required.

SECTION 16: Other information

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration

Publication date: 2022-09-28

Vinyl: Unilin, Quick-Step, Pergo, IVC Commercial

STP
vPvB

Sludge Treatment Process
very Persistent & very Bioaccumulative

The information in this Product Safety Information Sheet informs on the properties of certain substances, preparations or mixtures incorporated in the article. The Product Safety Information Sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this Product Safety Information Sheet does not release the user from the obligation to take all measures dictated by common sense, regulations, the guidelines of the manufacturer and recommendations or which are necessary and/or useful based on the real applicable circumstances. The Product Safety Information Sheet constitutes merely of guidelines and recommendations. The information in this Product Safety Information Sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. New Product Safety Information Sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the Product Safety Information Sheet, the information does not apply to other, even similar products. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This Product Safety Information Sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this Product Safety Information Sheet is subject to the licence and liability limiting conditions as stated in the agreement between BIG and the manufacturer of this product or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Publication date: 2022-09-28

Lenzburg, 14.03.2025

Betreff: Stellungnahme u.a. zur Erfüllung der EU-Taxonomie Verordnung von Unilin-Fußbodenbelägen

Sehr geehrte Damen und Herren,

generell achten wir bei unseren Produkten auf das Emissionsverhalten und halten die strengen Anforderungen des AgBB-Bewertungsschemas (Ausschuss zur gesundheitlichen Bewertung von Bauprodukten) Stand Juni 2021 ein. Die dort zugrunde gelegte NIK-Liste (Niedrigste Interessierende Konzentration), in der jeder Einzelstoff auf Grund seiner toxikologischen Bedeutung berücksichtigt wird, ist die aktuelle Bewertungsgrundlage. Das Unterschreiten des AgBB-Bewertungsschemas ist eine Grundvoraussetzung für die Verwendung in Innenräumen, welche für den dauerhaften Aufenthalt von Personen gedacht sind. Der Urheber für dieses Bewertungsschema ist das deutsche Umweltbundesamt mit Sitz in Dessau-Roßlau.

Darüber hinaus halten wir auch die Anforderung der DGNB (ENV1.2 QS4), sowie die Anforderungen der Schadstoffvermeidung in Baumaterialien nach Anhangdokument 313 ein. Dadurch sind die Anforderungen unserer Bodenbeläge für den Einsatz in DGNB- und QNG-Zertifizierte Gebäude eingehalten.

Um für einen wirksamen Verbraucherschutz zu sorgen hat die Europäische Union mit der Verordnung (EG) Nr. 1907/2006 (REACH-Verordnung) eine in ganz Europa geltende gesetzliche Regelung erlassen. Dieser Verordnung müssen sich zwingend alle Hersteller und Importeure unterwerfen. Es bedeutet, dass die zur Herstellung verwendeten Stoffe und Chemikalien vor dem Importieren und/oder dem Verarbeiten registriert werden müssen. Diese wiederum müssen durch entsprechende Studien oder Tests ihre Unbedenklichkeit nachgewiesen haben. Wir erklären Ihnen hiermit, dass Unilin ausschließlich Rohstoffe verarbeitet, die REACH-Verordnung 1907/2006 unterliegen und entsprechen.

Der Artikel 33 dieser REACH-Verordnung regelt die Informationspflicht innerhalb der Lieferkette und gegenüber dem Verbraucher. Dabei geht es darum ob in einem Produkt eine besorgniserregende Substanz (SVHC) enthalten ist oder nicht. Diese muss auf Anfrage benannt werden. Dazu erklären wir, dass unsere Fußbodenbeläge keine besorgniserregenden Substanzen (SVHC) eingesetzt werden. Die Anforderungen am Gehalt an Formaldehyd sind nach EU-Taxonomie Verordnung $< 0,06 \text{ mg/m}^3$ und an krebserregenden Stoffen $< 0,001 \text{ mg/m}^3$ definiert. Ebenfalls halten wir CMR-Stoffe der Kategorien 1A und 1B $< 0,1 \%$ ein und Chlorparaffine (SCCPs + MCCPs + LCCPs) sowie Blei und Zinnverbindungen sind kein Bestandteil unserer Formulierungen. Auch die Emissionsanforderungen der DE-UZ120 halten wir deutlich ein.


Benjamin Albus – Technischer Leiter DACH

Unilin Swiss GmbH – Tannengutweg 10 – 5600 Lenzburg – Switzerland

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	Unilin BV, division flooring
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-UNI-20230479-IBC1-EN
Issue date	15/01/2024
Valid to	14/01/2029

Luxury Vinyl Tiles (LVT) Unilin BV, division flooring

www.ibu-epd.com | <https://epd-online.com>



1. General Information

Unilin BV, division flooring

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-UNI-20230479-IBC1-EN

This declaration is based on the product category rules:

Floor coverings, 01/08/2021
(PCR checked and approved by the SVR)

Issue date

15/01/2024

Valid to

14/01/2029



Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)



Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

Luxury Vinyl Tiles (LVT)

Owner of the declaration

Unilin BV, division flooring
Ooigemstraat 3
8710 Wielsbeke
Belgium

Declared product / declared unit

1m² of Luxury Vinyl Tiles (LVT) floating floor (5 mm thickness without underlay) with mechanical locking.

Scope:

In this EPD semi flexible LVT floating floor with mechanical locking according to *EN 16511:2023* Modular mechanical locked floor coverings (MMF) - Specification, requirements and test method for multilayer modular panels for floating installation are declared.

The results are representative of production in UNILIN B.V. Division Flooring, Avelgem site (Belgium).

This EPD covers printed laminate polyvinyl chloride floor coverings produced by Unilin under following brands:

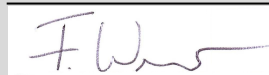
- Quick-Step (Alpha Vinyl, Alpha Vinyl pad, Paso Rigid Click, Lima Rigid Click, Rigid Vinyl, Sens by Quick-Step)
- Quick-Step Howdens (Plank, Hybrid, Rigid Vinyl Pad Plank, Rigid Vinyl Pad Tile)
- Pergo (Rigid Click Pro, Rigid click PAD Pro, Saimaa pro, Vibrance by Pergo)
- Moduleo (Next, LAYRED)
- LOC (Tender, Tender Base)
- Vitality (Amuse, Amuse base)
- Elka (Rigid, Rigid Pad)
- Unilin (Vinyl Rigid, Vinyl Rigid Pad)
- ORIGIN (30 & 55)
- Engineered click acoustic
- Textura acoustic

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

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR	
Independent verification of the declaration and data according to ISO 14025:2011	
☐	internally
☒	externally



Dr. Frank Werner,
(Independent verifier)

2. Product

2.1 Product description/Product definition

Rigid vinyl floorings also called Luxury Vinyl Tiles (LVT) are made up of several layers. On the top side, there is a PVC decor layer (2) with a transparent PVC wear-resistant contact surface coated with a PU lacquer for a mat aspect with an excellent stain and friction resistance (1); in the middle, for extra acoustic and walking comfort an additional soft PVC layer (3) and on the back side, there is a core layer (4) made of 2 rigid PVC layers reinforced with unwoven glass- fibers and separated by a foamed PVC layer for acoustic and comfort reasons to guarantee floor stability and to avoid telegraphing effect from subfloor irregularities. Some references are produced with a 1mm pre-attached underlay to make the installation faster and easier. The decorative PVC layer of LVT floor covering can be printed with any design and gives the floor its individual appearance. The planks have a mechanical and patented connection (Uniclic, Unidrop, Unizip).



For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 (CPR) applies. The product needs a declaration of performance taking into consideration *EN 14041:2004 AC 2006 Resilient, textile and laminate floor coverings - Essential characteristics* and the CE-marking.

For the application and use the respective national provisions apply.

2.2 Application

According to *EN ISO 10874* the area of application for resilient floor coverings is indicated by use classes. The declared product group covers the use classes between 32 and 33.

2.3 Technical Data

Constructional data

Name	Value	Unit
Product minimum thickness	4	mm
Product maximum thickness	5+1	mm
Product minimum mass	6.7	kg/m ²
Product maximum mass	8.7	kg/m ²
Product form	Planks and Tiles	

- Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *EN 14041:2004 AC 2006 Resilient, textile and laminate floor coverings - Essential characteristics* and the CE marking.

- Voluntary data: The product complies with the requirements of the following standard, too *EN 16511:2023 Modular mechanical locked floor coverings (MMF) - Specification, requirements and test method for multilayer modular panels for floating installation*. For the application and use the respective national provisions apply.

2.4 Delivery status

LVT floor covering is delivered in planks or tiles.

Typical standard dimensions are as follows (length - width thickness)

- 1251mm x 189mm x 5mm (4+1mm)
- 610mm x 303mm x 5mm (4+1mm)
- 630mm x 126mm x 6mm (5+1mm)
- 1494mm x 209mm x 6mm (5+1mm)
- 856mm x 428mm x 6mm (5+1mm)
- 630mm x 126mm x 6mm (5+1mm)
- 1253mm x 189mm x 6mm (5+1mm)
- 1317mm x 189mm x 6mm (5+1mm)
- 610mm x 303mm x 6mm (5+1mm)
- 1251mm x 189mm x 4mm
- 610mm x 303mm x 4mm

2.5 Base materials/Ancillary materials

The product group has the following composition:

- Filler 51%
- Polymers (PVC) 36%
- Plasticizer and stabilizer 8%
- Other 5%

This product contains substances listed in the Candidate List of Substances of Very High Concern for Authorisation *REACH* (date: 16.11.2023) exceeding 0.1 percentage by mass: **NO**

This product contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1 percentage by mass: **NO**

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the (EU) Ordinance on Biocide Products No. 528/2012): **NO**

2.6 Manufacture

The material efficiency is 99% as all production waste are internally recycled as raw material.

In production a certified *ISO 9001* quality control system is in place.

2.7 Environment and health during manufacturing

The production conditions do not demand any special health protection measures over and beyond the legal requirements.

Water

Production is using river water for cooling. The use of water in the LVT flooring production process is negligible.

Where water is needed, it is re-used in the internal water loop and eventually reinjected in the river after controlling quality and temperature.

Air

The constitutional valid regulations are observed. The emissions to air are far below the legally required thresholds.

Soil

There is no impact on soil.

In production a certified *ISO 14001* environmental management system is in place.

2.8 Product processing/Installation

UNILIN LVT click floor coverings are generally installed floating. This means that the floor covering is not fixed to the sub-floor using glue, nails etc. The floor covering panels are mainly mechanically assembled glue-less by means of tongue and groove. Underlay material is needed when installing LVT click floor coverings in order to achieve a leveling effect, thermal or acoustical insulation.

2.9 Packaging

LVT tiles are packed together. The packs are protected using cardboard 6-sided boxes. The packaging cardboard is fully recyclable.

The packs are palletized on wooden pallets using wood from controlled origin. The pallets can be re-used (Euro pallets) or recycled as wood category 03 01 05 according to the European Waste Catalogue.

2.10 Condition of use

A Polyurethan-based lacquer is used for the production of the flooring panels. After exposure to a strong UV light under anaerobic conditions, this coating is 3D crosslinked by an irreversible reaction and completely closing the flooring surface. Under normal conditions, the coating is chemically stable and mechanically firmly bonded to the PVC wearlayer.

2.11 Environment and health during use

Environmental protection

When the products are used as designated and according to the current state of knowledge, there are no hazards for water, air and soil.

Health protection

When used normally and in accordance with the designated purpose, no health risks or restrictions are to be anticipated by UNILIN LVT floor coverings. This is in line with the current state of knowledge.

2.12 Reference service life

The BBSR gives a general useful life of **20 years** for floor coverings of component group 352.711. Due to the comparatively high resistance of the LVT floorings, Unilin grants an additional **warranty** (based on the floor owner life according to the manufacturer's warranty conditions) for the declared product. In order to increase the life duration of the floor covering, the manufacturer's instructions concerning warranty and care must be observed, available for download at www.unilin.com/en/flooring. The use stage is declared in this EPD for a one year usage.

2.13 Extraordinary effects

Fire

The reaction to fire is determined according to *EN 13501-1*. The class for LVT floors produced by UNILIN BV division Flooring, in combination with all underlays of the sales program is Bfl-s1.

Fire protection

Name	Value
Building material class	Bfl
Smoke gas development	s1

Water

In case of a leak or a flood where the flooring has been soaked

the flooring will most probably be OK as no visible damage are expected.

If the water came under the floorcovering (floating installation) it may be necessary to unclic the panels and let dry the subfloor and the underlay. It should be given the time to come to equilibrium moisture content before reinstallation of the dried panels.

Most of the LVT ranges offer a special watertightness between planks/tiles. During the installation, the periphery needs to be treated with a foam strip and a special sealant to avoid infiltration. In case of water spillage on the surface, it will evaporate before having the chance to penetrate between planks/tiles.

Mechanical destruction

Small damages in the flooring surface can be repaired by using colored solvent-free melt waxes. Scratches in the transparent wear layer can be repaired with an adapted new coating 1 or 2 compound following the manufacturer instructions. In case of more severe damage the damaged panels can be replaced. Procedures to repair or replace a damaged plank are available on request. The damaged panels go into the normal end-of-life treatment.

2.14 Re-use phase

A LVT click floor covering which is not at the end-of-life stage may be un-installed and re-used as a floor covering. Post-consumer LVT click floor covering waste can be recycled as PVC-based products. When appropriate recycling facilities do not exist, LVT click floor coverings shall be thermally valorized.

2.15 Disposal

Post-installation and post-consumer flooring panels are considered as PVC waste. The European Waste Code *EW*C is 070213. It can be disposed in any regulated municipal waste collection point in the combustible waste container. Unilin offers a take-back program named Recover to enable circularity of PVC flooring. Please contact your local Unilin dealer to check the availability of this Recover program in your country.

2.16 Further information

All information about the product composition, technical performance, instructions for installation and maintenance, precautionary instructions for use, CE marking and relevant DOP (declaration of performance) documents, are available either in the packs or can be found on the homepage www.unilin.com/en/flooring or can be requested at Unilin BV division flooring info@unilin.com.

3. LCA: Calculation rules

3.1 Declared Unit

1m² of Luxury Vinyl Tiles (LVT) floating floor (5 mm thickness without underlay) with mechanical locking.

Declared unit and mass reference

Name	Value	Unit
Declared unit	1	m ²
Layer thickness	0.005	m
Grammage	8.6	kg/m ²

3.2 System boundary

Type of EPD according to *EN 15804*: cradle to grave.

Modules A1-A3 include processes that provide materials and energy input for the system, manufacturing and transport processes up to the factory gate, as well as waste processing.

Module A4 includes transport of the floor covering to the place of installation. A4 data are based on a weighted average distance for worldwide deliveries.

Module A5 includes the production of offcuts for the installation of the floor covering, and incineration of offcuts and packaging material.

Module B2 is including provision of cleaning agent, energy and water consumption for the cleaning of the floor covering. The LCA results in this EPD are declared for a one-year usage.

Module C2 includes transportation of the postconsumer waste to waste processing.

End of life scenarios are declared for:

- 100% landfilling (Scenario 1, C4/1)
- 100% incineration in a waste incineration plant (WIP) (Scenario 2, C4/2)

Module D includes potential benefits from all net flows given in module A5 and C4 that leave the product boundary system after having passed the end-of-waste state in the form of recovery and/or recycling potentials. Module D is declared for each scenario separately (D/1 and D/2).

3.3 Estimates and assumptions

No additional estimates or assumptions had to be made beyond the information stated in clauses 3 and 4.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, utilised thermal energy, and electric power consumption using best available LCI datasets. Thus material and energy flows contributing less than 1% of mass or energy are also considered.

No flows were cut-off that are known to have significant environmental impacts.

3.5 Background data

Used background data comes from ecoinvent database version 3.8 from 2021. It has been selected to be representative of processes geographic location.

3.6 Data quality

Primary data refer to the year 2021. The data of the foreground processes is based on input-output analyses at the Belgian production sites. The primary data collection was done thoroughly, all relevant flows were considered.

3.7 Period under review

The period under review for primary data is 2021.

3.8 Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Global

3.9 Allocation

The overall production of UNILIN comprises further products beside the product considered in this study. Data for thermal and electrical energy as well as auxiliary material refer to the declared product. During data collection the allocation is done via mass (kg). Specific information on allocation within the background data is given in the ecoinvent documentation.

3.10 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account.

Background database is as described in chapter 3.5.

4. LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

Information on describing the biogenic carbon content at factory gate

Name	Value	Unit
Biogenic carbon content in product	-	kg C
Biogenic carbon content in accompanying packaging	0.3	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

The following technical information is a basis for the declared modules. Scenarios correspond to the worldwide production and consumption.

Transport to the construction site (A4)

Product shipping stage A4 represents weighted average based on worldwide sales.

Name	Value	Unit
Transport distance by truck	686	km
Capacity utilisation (including empty runs) by truck	67	%
transport distance by boat	1319	km

Installation in the building (A5)

Name	Value	Unit
Product installation losses	4.0	%
Product packaging waste	0.66	kg

Maintenance (B2)

Maintenance scenario is:

- 1 vacuum cleaning per week,
- 1 wet cleaning (water and detergent) per month.

Name	Value	Unit
Water consumption	1.33	kg/m ² /year
Detergent	0.0133	kg/m ² /year
Electricity consumption (European mix)	0.54	kWh/m ² /year

Reference service life

Name	Value	Unit
Reference service life according to BBSR	20	a

End of Life (C1-C4)

Name	Value	Unit
Energy recovery from waste (for EoL scenario 2)	8.6	kg
Landfilling (for EoL scenario 1)	8.6	kg

Energy recovery from product waste is assumed in a municipal waste incineration plant with energy efficiency < 60%. In line with *EN 15804*, this is therefore declared as part of module C4.

5. LCA: Results

The results refer to LVT thickness of 5 mm without underlay (8.6 kg/m²). The information on maintenance is declared per year.

LVT floor coverings are available in thicknesses 4 mm and 5mm, with and without underlay. In order to enable the user of the EPD to calculate the results for different thicknesses and use classes the factors in the following table can be used for the calculation. For A1, A2, A3, A4, A5, B2, C4 and D the LCA results of the declared product (thickness 5 mm without underlay) in following tables have to be multiplied with these factors.

LVT thickness	5 mm	5 mm	4 mm	4 mm
Underlay	without underlay	with underlay	without underlay	with underlay
GWP - total	1,00	1,00	0,81	0,82
GWP - fossil	1,00	1,00	0,81	0,82
GWP - biogenic	1,00	1,00	0,88	0,90
GWP - luluc	1,00	1,05	0,96	0,95
ODP	1,00	0,99	0,81	0,81
AP	1,00	0,99	0,81	0,81
EP - freshwater	1,00	0,99	0,81	0,82
EP - marine	1,00	1,01	0,82	0,83
EP - terrestrial	1,00	1,00	0,81	0,82
POCP	1,00	1,00	0,81	0,82
ADPE	1,00	0,97	0,79	0,80
ADPF	1,00	1,01	0,81	0,83
WDP	1,00	1,00	0,82	0,82
PM	1,00	1,00	0,81	0,82
IR	1,00	1,00	0,80	0,81
ETP - fw	1,00	0,99	0,79	0,79
HTP - c	1,00	0,98	0,80	0,80
HTP - nc	1,00	0,98	0,80	0,81
SQP	1,00	1,00	0,80	0,81
PERE	1,00	1,02	0,83	0,84
PERM	1,00	1,01	-0,10	-0,23
PERT	1,00	1,02	0,83	0,84
PENRE	1,00	1,00	0,81	0,82
PENRM	1,00	1,03	0,82	0,84
PENRT	1,00	1,01	0,81	0,83
SM	1,00	1,01	0,80	0,81
RSF	1,00	1,00	1,00	1,00
NRSF	1,00	1,00	1,00	1,00
FW	1,00	1,00	0,82	0,82
HWD	1,00	0,97	0,78	0,79
NHWD	1,00	0,92	0,74	0,74
RWD	1,00	1,00	0,80	0,81
CRU	1,00	1,00	1,00	1,00
MFR	1,00	1,00	0,80	0,81
MER	1,00	1,00	1,00	1,00
EEE	1,00	1,01	0,80	0,81
EET	1,00	1,01	0,80	0,81

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	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	X	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m² LVT floor covering

Parameter	Unit	A1	A2	A3	A4	A5	B2	C1	C2	C3	C4/1	C4/2	D/1	D/2
GWP-total	kg CO ₂ eq	9.99E+00	1.5E-01	4.7E+00	1.14E+00	2.25E+00	2.34E-01	0	3.72E-02	0	6.01E-01	1.09E+01	-4.87E-02	-2.87E+00
GWP-fossil	kg CO ₂ eq	9.91E+00	1.5E-01	5.53E+00	1.14E+00	1.17E+00	2.29E-01	0	3.72E-02	0	6.01E-01	1.09E+01	-4.82E-02	-2.86E+00
GWP-biogenic	kg CO ₂ eq	-8.21E-02	4.88E-05	-8.36E-01	3.48E-04	1.07E+00	1.21E-03	0	1.21E-05	0	8.78E-05	3.11E-03	-4.92E-04	-6.52E-03
GWP-luluc	kg CO ₂ eq	1.54E-01	5.81E-05	1.39E-02	5.04E-04	6.76E-03	3.98E-03	0	1.44E-05	0	1.88E-05	7.9E-04	-4.37E-05	-2.86E-03
ODP	kg CFC11 eq	3.27E-06	3.78E-08	7.67E-07	2.63E-07	1.91E-07	1.24E-08	0	9.35E-09	0	2.67E-08	2.96E-07	-4.76E-09	-3.14E-07
AP	mol H ⁺ eq	4.92E-02	4.83E-04	1.39E-02	6.69E-03	3.27E-03	1.32E-03	0	1.19E-04	0	6.39E-04	5.43E-03	-1.44E-04	-7.84E-03
EP-freshwater	kg P eq	4.07E-04	1.08E-06	1.32E-04	7.81E-06	2.32E-05	2.5E-05	0	2.67E-07	0	6.2E-07	2.53E-05	-2.14E-06	-1.29E-04
EP-marine	kg N eq	8.89E-03	1.06E-04	3.5E-03	1.51E-03	7.13E-04	2.23E-04	0	2.63E-05	0	4.11E-04	1.36E-03	-2.36E-05	-1.24E-03
EP-terrestrial	mol N eq	9E-02	1.18E-03	3.28E-02	1.68E-02	7.27E-03	2.03E-03	0	2.92E-04	0	2.58E-03	1.46E-02	-2.65E-04	-1.4E-02
POCP	kg NMVOC eq	3.67E-02	4.65E-04	9.48E-03	5.16E-03	2.51E-03	5.46E-04	0	1.15E-04	0	8.87E-04	4.16E-03	-8.5E-05	-4.16E-03
ADPE	kg Sb eq	3.46E-04	3.74E-07	3.87E-05	3.93E-06	1.61E-05	2.3E-06	0	9.26E-08	0	2.52E-07	1.16E-05	-7.37E-08	-3.1E-06
ADPF	MJ	2.51E+02	2.47E+00	1.09E+02	1.72E+01	1.6E+01	4.82E+00	0	6.1E-01	0	1.93E+00	1.25E+01	-9.05E-01	-5.44E+01
WDP	m³ world eq deprived	1.32E+01	8.48E-03	2.11E+00	5.04E-02	6.79E-01	7.05E-02	0	2.1E-03	0	9.25E-03	8.7E-01	-6.05E-03	-2.91E-01

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential)

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m² LVT floor covering

Parameter	Unit	A1	A2	A3	A4	A5	B2	C1	C2	C3	C4/1	C4/2	D/1	D/2
PERE	MJ	1.5E+01	3.14E-02	1.16E+01	2.35E-01	2.35E+00	1.04E+00	0	7.76E-03	0	8.38E-02	1.58E+00	2.28E-02	-4.34E+00
PERM	MJ	1.01E+00	0	2.63E-01	0	-1.16E+00	8.77E-04	0	0	0	0	0	0	0
PERT	MJ	1.61E+01	3.14E-02	1.18E+01	2.35E-01	1.2E+00	1.04E+00	0	7.76E-03	0	8.38E-02	1.58E+00	2.28E-02	-4.34E+00
PENRE	MJ	1.44E+02	2.47E+00	1.08E+02	1.72E+01	1.65E+01	4.46E+00	0	6.1E-01	0	1.93E+00	1.19E+02	-9.05E-01	-5.44E+01
PENRM	MJ	1.07E+02	0	3.7E-01	0	-4.76E-01	3.64E-01	0	0	0	0	-1.07E+02	0	0
PENRT	MJ	2.51E+02	2.47E+00	1.09E+02	1.72E+01	1.6E+01	4.82E+00	0	6.1E-01	0	1.93E+00	1.25E+01	-9.05E-01	-5.44E+01
SM	kg	0	0	4.88E-01	0	1.95E-02	3.28E-04	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0
FW	m³	2.18E-01	2.87E-04	6.23E-02	1.83E-03	2.32E-02	4.34E-03	0	7.11E-05	0	2.44E-03	2.78E-01	-3.59E-04	-2.16E-02

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 material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

RESULTS OF THE LCA - WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 m² LVT floor covering

Parameter	Unit	A1	A2	A3	A4	A5	B2	C1	C2	C3	C4/1	C4/2	D/1	D/2
HWD	kg	4.32E-01	1.71E-03	6.32E-01	1.3E-02	1.45E-01	6.23E-03	0	4.22E-04	0	2.22E-03	2.17E+00	-5.8E-04	-2.83E-02
NHWD	kg	6.65E+00	2.43E-01	1.37E+00	9.24E-01	4.07E-01	9.07E-02	0	6.01E-02	0	8.64E+00	4.86E-01	-6.16E-03	-3.56E-01
RWD	kg	5.29E-04	1.67E-05	8.48E-04	1.16E-04	6.49E-05	3.41E-05	0	4.13E-06	0	1.25E-05	6.72E-05	-2.23E-06	-2.02E-04
CRU	kg	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	1.1E-01	0	4.42E-03	4.25E-04	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0	0	0	0	0

EEE	MJ	0	0	6.71E-01	0	1.48E+00	1.48E-03	0	0	0	0	1.07E+01	0	0
EET	MJ	0	0	1.48E+00	0	2.99E+00	2.86E-03	0	0	0	0	2.37E+01	0	0

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1 m² LVT floor covering

Parameter	Unit	A1	A2	A3	A4	A5	B2	C1	C2	C3	C4/1	C4/2	D/1	D/2
PM	Disease incidence	3.95E-07	1.76E-08	1.27E-07	8.69E-08	2.93E-08	4.46E-09	0	4.34E-09	0	1.39E-08	3.92E-08	-3.39E-10	-2.11E-08
IR	kBq U235 eq	5.46E-01	1.07E-02	9.78E-01	7.46E-02	6.8E-02	4.11E-02	0	2.65E-03	0	8.85E-03	6.04E-02	-3.05E-03	-2.35E-01
ETP-fw	CTUe	9.22E+01	8.17E-01	8.1E+01	5.91E+00	2.99E+01	8.82E-01	0	2.02E-01	0	3.21E+01	5.41E+02	-6.55E-02	-3.53E+00
HTP-c	CTUh	8.01E-09	5.25E-11	2.83E-09	4.66E-10	5.99E-10	1.12E-10	0	1.3E-11	0	6.02E-11	1.49E-09	-6.09E-12	-4.81E-10
HTP-nc	CTUh	1.95E-07	1.68E-09	3.88E-08	1.05E-08	1.38E-08	3.04E-09	0	4.15E-10	0	1.45E-09	4.67E-08	-1.92E-10	-1.1E-08
SQP	SQP	4.72E+01	2.82E+00	6.26E+01	1.12E+01	5.39E+00	1.13E+00	0	6.98E-01	0	5.02E+00	6.07E+00	4.4E-01	-3.57E+00

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. 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 or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

6. LCA: Interpretation

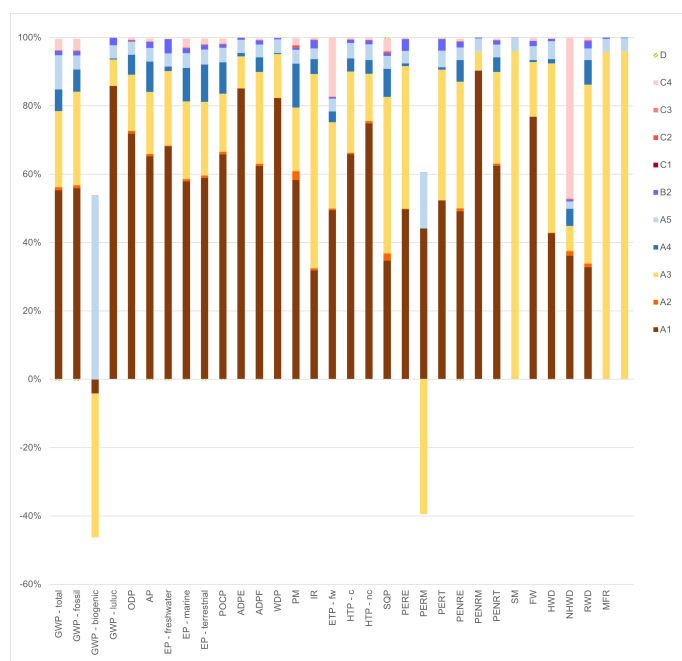


Figure : Indicator results of LVT floor covering over its life cycle (landfiling end-of-life)

The largest part of environmental impacts is caused during production (modules A1-A3) and at waste processing for incineration end-of-life (module C4); comparably small impacts are caused during the transport of the product to the construction site.

Maintenance (module B2) is presented for 1 year of product use, so its impact can be significant over the reference service life depending on the considered indicator.

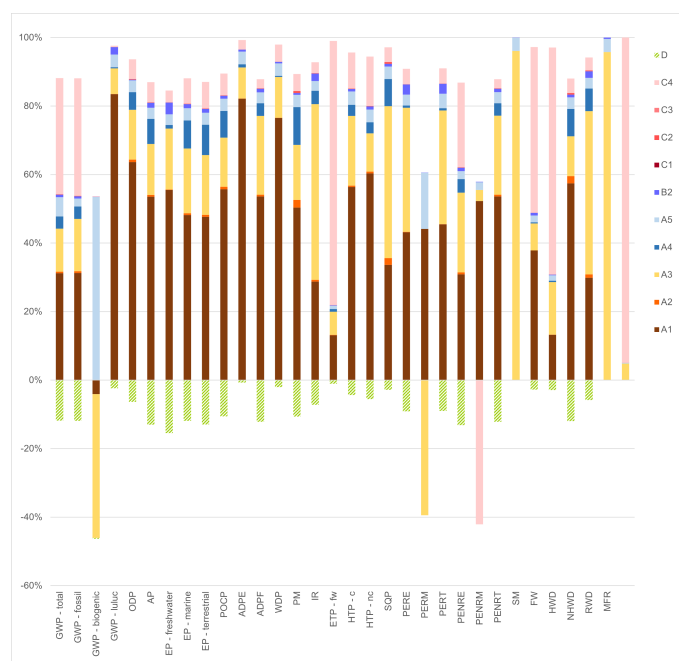


Figure : Indicator results of LVT floor covering over its life cycle (incineration end-of-life)

All the other modules related to the product life cycle are not significant.

For incineration end-of-life, benefits and burdens beyond the system boundary (module D) is about 5 to 15% of the impacts over the product life cycle (modules A-C) and relate to the energy recovery from waste processing in a waste incineration plant that is considered to substitute natural gas (heat) and electricity grid mix.

7. Requisite evidence

7.1 formaldehyde emissions

Determination of the formaldehyde emissions of a rigid LVT flooring according to according to *EN 16516* and evaluation according to different labels. – EPH Laboratory Chemical Testing – Zellescher Weg 24 – 01217 Dresden – Germany. - Test Report nr 2522498/3 on 'Unilin Vinyl Rigid 5 mm CL33'.

Name	Value	Unit
Formaldehyde CAS nr 50-00-0	< 5	µg/m ³

7.2 VOC emissions on 5mm rigid LVT flooring

Determination of the VOC emissions of a rigid LVT flooring according to *EN 16516* and evaluation according to different labels. – EPH Laboratory Chemical Testing – Zellescher Weg 24 – 01217 Dresden – Germany. - Test Report nr 2522498/3 on 'Unilin Vinyl Rigid 5 mm CL33'.

- Compliant with AgBB-Scheme 2018 and 2021
- Compliant with M1 Emission Classification of Building Materials (Testing protocol 15.11.2017)
- Compliant with the French VOC-Regulation: A+

VOC EMISSION RESULTS (AgBB) AFTER 3 DAYS

Measurements are not available.

VOC EMISSION RESULTS (AgBB) AFTER 28 DAYS

Name	Value	Unit
TVOC	< 5	µg/m ³
R (dimensionless)	0	
VOC without LCI	< 5	µg/m ³
Carcinogens	< 1	µg/m ³

7.2 VOC emissions on 5+1mm rigid LVT flooring

Determination of the VOC emissions of a LVT flooring according to according to *EN 16516* and evaluation according to different labels. – Eurofins Product Testing A/S – Smedeskovvej 38 – 8464 Galten - Denmark. - Test Report nr 392-2020-00452501_A_EN from November 24th 2020 on 'Layred 55'.

- Compliant with AgBB-Scheme 2018 and 2019
- Compliant with the French VOC-Regulation: A+

VOC EMISSION RESULTS (AgBB) AFTER 3 DAYS

Name	Value	Unit
TVOC	5,7	µg/m ³
R (dimensionless)	0,082	
VOC without LCI	< 5	µg/m ³
Carcinogens	< 1	µg/m ³

VOC EMISSION RESULTS (AgBB) AFTER 28 DAYS

Name	Value	Unit
TVOC	< 5	µg/m ³
R (dimensionless)	0,000	
VOC without LCI	< 5	µg/m ³
Carcinogens	<3	µg/m ³

8. References

IBU 2021

Institut Bauen und Umwelt e.V.: General Instructions for the EPD programme of Institut Bauen und Umwelt e.V., Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021 www.ibu-epd.com

EN 15804

EN 15804:2012+A2:2019+AC:2021, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

EN ISO 14044

Environmental management - Life cycle assessment - Requirements and guidelines (ISO 14044:2006); German and English version EN ISO 14044

ISO 14025

EN ISO 14025:2011, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.

ISO 14040

ISO 14040:2006, Environmental management - Life cycle assessment - Principles and framework (ISO 14040); German and English version EN ISO 14040

CEN/TR 15941

Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data; German version CEN/TR 15941

ISO 16000-3:2011

ISO 16000-3:2011 – Indoor air – part3: Determination of

formaldehyde and other carbonyl compounds in indoor air and test chamber air – Active sampling method.

ISO 16000-6:2011

ISO 16000-6:2011 – Indoor air – part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax A sorbent, thermal desorption an gas chromatography using MS of MS-FID

ISO 16000-9:2006

ISO 16000-9:2006 – Indoor air – part 9: Determination of the emissions of volatile organic compounds from building products and furnishing – Emission test chamber method.

EN 16511:2023

Modular mechanical locked floor coverings (MMF) - Specification, requirements and test method for multilayer modular panels for floating installation

EN 14041:2004 AC 2006

Resilient, textile, laminate and modular multilayer floor coverings - Essential characteristics

EN ISO 10874:

Resilient, textile and laminate floor coverings -- Classification

BBSR:

Bundesinstitut für Bau-, Stadt- und Raumforschung.

EWG-94/3/EC

Commission Decision of 20 December 1993 establishing a list of wastes pursuant to Article 1a of Council Directive

74/442/EEC on waste, 1993 - European Waste Catalogue and Hazardous Waste List valid from 1 January 2002.

ecoinvent

ecoinvent, Allocation, cut-off by classification, ecoinvent database version 3.8 (2021)

PCR Guidance – Texts for Building-Related Products and Services – Part B: Requirements on the EPD for floor coverings - IBU Published v6 dated 19.10.2023

**Publisher**

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

**Programme holder**

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

**Author of the Life Cycle Assessment**

EVEA
rue Arthur III, 11
44200 Nantes
France

+33 2 28 07 87 00
contact@evea-conseil.com
www.evea-conseil.com/en

**Owner of the Declaration**

Unilin BV, division flooring
Ooigemstraat 3
8710 Wielsbeke
Belgium

+32 56 67 52 11
info@unilin.com
www.unilin.com/en/flooring