



SHI-PRODUKTPASS

Produkte finden - Gebäude zertifizieren

SHI-Produktpass-Nr.:

12074-10-1001

Sperrgrund

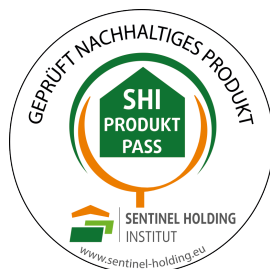
Warengruppe: Grundierungen - Trocken- und Innenausbau



Knauf Bauprodukte GmbH & Co. KG
Am Bahnhof 7
97346 Iphofen



Produktqualitäten:



Köttner

Helmut Köttner
Wissenschaftlicher Leiter
Freiburg, den 29.09.2025



Inhalt

 SHI-Produktbewertung 2024	1
 QNG - Qualitätssiegel Nachhaltiges Gebäude	2
 DGNB Neubau 2023	3
 DGNB Neubau 2018	4
 BNB-BN Neubau V2015	5
 EU-Taxonomie	6
 BREEAM DE Neubau 2018	7
Produktsiegel	8
Rechtliche Hinweise	9
Technisches Datenblatt/Anhänge	10

Wir sind stolz darauf, dass die SHI-Datenbank, die erste und einzige Datenbank für Bauprodukte ist, die ihre umfassenden Prozesse sowie die Aktualität regelmäßig von dem unabhängigen Prüfunternehmen SGS-TÜV Saar überprüfen lässt.





Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

SHI-Produktbewertung 2024

Seit 2008 etabliert die Sentinel Holding Institut GmbH (SHI) einen einzigartigen Standard für schadstoffgeprüfte Produkte. Experten führen unabhängige Produktprüfungen nach klaren und transparenten Kriterien durch. Zusätzlich überprüft das unabhängige Prüfunternehmen SGS regelmäßig die Prozesse und Aktualität.

Kriterium	Produktkategorie	Schadstoffgrenzwert	Bewertung
SHI-Produktbewertung	Anstrich- und Beschichtungsstoffe	TVOC $\leq 300 \mu\text{g}/\text{m}^3$ Formaldehyd $\leq 24 \mu\text{g}/\text{m}^3$	Schadstoffgeprüft
Gültig bis: 26.01.2026			



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

QNG - Qualitätssiegel Nachhaltiges Gebäude

Das Qualitätssiegel Nachhaltiges Gebäude, entwickelt durch das Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen (BMWSB), legt Anforderungen an die ökologische, soziokulturelle und ökonomische Qualität von Gebäuden fest. Das Sentinel Holding Institut prüft Bauprodukte gemäß den QNG-Anforderungen für eine Zertifizierung und vergibt das QNG-ready Siegel. Das Einhalten des QNG-Standards ist Voraussetzung für den KfW-Förderkredit. Für bestimmte Produktgruppen hat das QNG derzeit keine spezifischen Anforderungen definiert. Diese Produkte sind als nicht bewertungsrelevant eingestuft, können jedoch in QNG-Projekten genutzt werden.

Kriterium	Pos. / Bauproduktgruppe	Betrachtete Stoffe	QNG Freigabe
3.1.3 Schadstoffvermeidung in Baumaterialien	5.3 Beschichtungen auf mineralischen Oberflächen (Beton, Mauerwerk, Estrich, Zementplatten, Gipsplatten, Putzen und Vliesen) in Innenräumen	VOC / Emissionen	QNG-ready
Nachweis: Sicherheitsdatenblatt vom 23.05.2025 (Überarbeitungsdatum)			



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

DGNB Neubau 2023

Das DGNB-System (Deutsche Gesellschaft für Nachhaltiges Bauen) bewertet die Nachhaltigkeit von Gebäuden verschiedener Art. Das System ist sowohl anwendbar für private und gewerbliche Großprojekte als auch für kleinere Wohngebäude. Die Version 2023 setzt hohe Standards für ökologische, ökonomische, soziokulturelle und funktionale Aspekte während des gesamten Lebenszyklus eines Gebäudes.

Kriterium	Pos. / Relevante Bauteile / Bau-Materialien / Flächen	Betrachtete Stoffe / Aspekte	Qualitätsstufe
ENV 1.2 Risiken für die lokale Umwelt, 03.05.2024 (3. Auflage)	3 Beschichtungen auf überwiegend mineralischen Untergründen im Innenraum	VOC	Qualitätsstufe: 4
Nachweis: Sicherheitsdatenblatt vom 23.05.2025 (Überarbeitungsdatum)			

Kriterium	Bewertung
SOC 1.2 Innenraumluftqualität (*)	Kann Gesamtbewertung positiv beeinflussen

Kriterium	Pos. / Relevante Bauteile / Bau-Materialien / Flächen	Betrachtete Stoffe / Aspekte	Qualitätsstufe
ENV 1.2 Risiken für die lokale Umwelt, 29.05.2025 (4. Auflage)	3 Beschichtungen auf überwiegend mineralischen Untergründen im Innenraum	VOC	Qualitätsstufe: 4
Nachweis: Sicherheitsdatenblatt vom 23.05.2025 (Überarbeitungsdatum)			



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

DGNB Neubau 2018

Das DGNB-System (Deutsche Gesellschaft für Nachhaltiges Bauen) bewertet die Nachhaltigkeit von Gebäuden verschiedener Art. Das System ist sowohl anwendbar für private und gewerbliche Großprojekte als auch für kleinere Wohngebäude.

Kriterium	Pos. / Relevante Bauteile / Bau-Materialien / Flächen	Betrachtete Stoffe / Aspekte	Qualitätsstufe
ENV 1.2 Risiken für die lokale Umwelt	3 Beschichtungen auf überwiegend mineralischen Untergründen im Innenraum wie Beton, Mauerwerk, Mörtel und Spachtel (z. B. Betonspachtel). Nicht betrachtet werden Bodenflächen mit speziellen	VOC	Qualitätsstufe: 4
Nachweis: Sicherheitsdatenblatt vom 23.05.2025 (Überarbeitungsdatum)			



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

BNB-BN Neubau V2015

Das Bewertungssystem Nachhaltiges Bauen ist ein Instrument zur Bewertung von Büro- und Verwaltungsgebäuden, Unterrichtsgebäuden, Laborgebäuden sowie Außenanlagen in Deutschland. Das BNB wurde vom damaligen Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB) entwickelt und unterliegt heute dem Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen.

Kriterium	Pos. / Bauprodukttyp	Betrachtete Schadstoffgruppe	Qualitätsniveau
1.1.6 Risiken für die lokale Umwelt	4 Spachtelmassen (inkl. Q-Spachteln), staubbindende Beschichtungen/ Grundierungen (entspr. Decopaint-RL Kat. G + H), Betonschutzbeschichtungen (ölfest, säurefest, wasserfest, etc.); KEINE EP	VOC / gefährliche Stoffe	Qualitätsniveau 5
Nachweis: Herstellererklärung vom 26.05.2025			



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001



EU-Taxonomie

Die EU-Taxonomie klassifiziert wirtschaftliche Aktivitäten und Produkte nach ihren Umweltauswirkungen. Auf der Produktebene gibt es gemäß der EU-Verordnung klare Anforderungen zu Formaldehyd und flüchtigen organischen Verbindungen (VOC). Die Sentinel Holding Institut GmbH kennzeichnet qualifizierte Produkte, die diesen Standard erfüllen.

Kriterium	Produkttyp	Betrachtete Stoffe	Bewertung
DNSH - Vermeidung und Verminderung der Umweltverschmutzung		Stoffe nach Anlage C	EU-Taxonomie konform

Nachweis: Sicherheitsdatenblatt vom 23.05.2025 (Überarbeitungsdatum)



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) ist ein britisches Gebäudebewertungssystem, welches die Nachhaltigkeit von Neubauten, Sanierungsprojekten und Umbauten einstuft. Das Bewertungssystem wurde vom Building Research Establishment (BRE) entwickelt und zielt darauf ab, ökologische, ökonomische und soziale Auswirkungen von Gebäuden zu bewerten und zu verbessern.

Kriterium	Produktkategorie	Betrachtete Stoffe	Qualitätsstufe
Hea 02 Qualität der Innenraumluft	Farben und Lacken für Innenräume	Emissionen: Formaldehyd, TVOC, Krebserregende Stoffe	normale Qualität
Nachweis: EMICODE EC1+ Zertifikat vom 26.01.2021			



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001

KNAUF

Produktsiegel

In der Baubranche spielt die Auswahl qualitativ hochwertiger Materialien eine zentrale Rolle für die Gesundheit in Gebäuden und deren Nachhaltigkeit. Produktlabels und Zertifikate bieten Orientierung, um diesen Anforderungen gerecht zu werden. Allerdings besitzt jedes Zertifikat und Label eigene Prüfkriterien, die genau betrachtet werden sollten, um sicherzustellen, dass sie den spezifischen Bedürfnissen eines Bauvorhabens entsprechen.



Das EMICODE®-Prüfzeichen des von Herstellern getragenen Vereins GEV – Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e. V. ist vor allem im Bereich der Bodenverlegewerkstoffe relevant. Das EMICODE®-Siegel EC1^{PLUS} setzt als Premiumklasse noch einmal deutlich strengere Emissionsgrenzwerte als die anderen Siegelkategorien.



Dieses Produkt ist schadstoffgeprüft und wird vom Sentinel Holding Institut empfohlen. Gesundes Bauen, Modernisieren und Betreiben von Immobilien erfolgt dank des Sentinel Holding Konzepts nach transparenten und nachvollziehbaren Kriterien.



Produkte mit dem QNG-ready Siegel des Sentinel Holding Instituts eignen sich für Projekte, für welche das Qualitätssiegel Nachhaltiges Gebäude (QNG) angestrebt wird. QNG-ready Produkte erfüllen die Anforderungen des QNG Anhangdokument 3.1.3 "Schadstoffvermeidung in Baumaterialien". Das KfW-Kreditprogramm Klimafreundlicher Neubau mit QNG kann eine höhere Fördersumme ermöglichen.



Das IBU ist eine Initiative von Bauprodukt- und Baukomponentenherstellern, die sich dem Leitbild der Nachhaltigkeit im Bauwesen verpflichten. IBU ist Programmbetreiber für Umwelt-Produktdeklarationen (Environmental Product Declaration, kurz: EPD) nach der Norm EN 15804. Das IBU-EPD-Programm steht für umfassende Ökobilanzen und Umweltwirkungen von Bauprodukten und eine unabhängige Überprüfung durch Dritte.



Produkt:

Sperrgrund

SHI Produktpass-Nr.:

12074-10-1001



Rechtliche Hinweise

(*) Die Kriterien dieses Steckbriefs beziehen sich auf das gesamte Bauobjekt. Die Bewertung erfolgt auf der Ebene des Gebäudes. Im Rahmen einer sachgemäßen Planung und fachgerechten Installation können einzelne Produkte einen positiven Beitrag zum Gesamtergebnis der Bewertung leisten. Das Sentinel Holding Institut stützt sich einzig auf die Angaben des Herstellers.

Alle Kriterien finden Sie unter:

<https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfkriterien%20f%C3%BCr%20Produkte>

Wir sind stolz darauf, dass die SHI-Datenbank, die erste und einzige Datenbank für Bauprodukte ist, die ihre umfassenden Prozesse sowie die Aktualität regelmäßig von dem unabhängigen Prüfunternehmen SGS-TÜV Saar überprüfen lässt.



Herausgeber

Sentinel Holding Institut GmbH
Bötzingen Str. 38
79111 Freiburg im Breisgau
Tel.: +49 761 59048170
info@sentinel-holding.eu
www.sentinel-holding.eu

Lizenzerteilung zur Führung des EMICODE

Lizenzierungs-Nummer: 12933/14.03.14
Für den Artikel Knauf Sperrgrund
der Firma Knauf Bauprodukte GmbH & Co. KG
wird auf Antrag vom 22.01.2021

unter Bezugnahme auf die Einstufung gemäß den nach § 10 der
GEV-Zeichensatzung festgelegten Richtlinien

namens der Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe
und Bauprodukte e.V. für den oben genannten Artikel nach § 5 Abs. 4 der GEV-
Zeichensatzung die Lizenz zur Führung des GEV-Zeichens



erteilt. Damit erfüllt dieser Artikel die rückseitig aufgeführten Kriterien.
Die Firma ist ordentliches Mitglied der GEV.

OM 104 26.01.2021
gültig bis 26.01.2026

Der Geschäftsführer
Gemeinschaft Emissionskontrollierte Verlegewerkstoffe,
Klebstoffe und Bauprodukte e.V.
Völklinger Straße 4 · D-40219 Düsseldorf

Hinweise zu den Voraussetzungen über die Vergabe der Lizenz für den EMICODE

Das gemäß vorseitiger Lizenz eingestufte Produkt hat nach der Satzung und den Richtlinien des Technischen Beirats der GEV u.a. den folgenden Kriterien zu genügen:

- Das Produkt entspricht allen gesetzlichen Bestimmungen, insbesondere denen des Chemikalienrechtes und seiner Verordnungen.
- Das Produkt ist nach der Definition der TRGS 610 lösemittelfrei, sofern es sich nicht um ein Oberflächenprodukt handelt. Soweit es einer Produktgruppe nach GISCODE zuzuordnen ist, wird diese angegeben.
- Für das Produkt wird ein Sicherheitsdatenblatt nach lokalem Recht in der jeweils aktuellen Fassung erstellt.
- Krebserregende, erbgutverändernde oder fruchtschädigende Stoffe der Klassen 1A und 1B werden dem Produkt bei der Herstellung nicht zugesetzt.
- Die Prüfung des Produktes erfolgt nach der definierten „GEV-Prüfmethode“. Die VOC-Bestimmung wird dabei in einer Prüfkammer nach dem Tenax-Thermodesorptions-Verfahren mit nachgeschalteter GC/MS-Analyse durchgeführt.
- Die Einstufung in EMICODE-Klassen erfolgt entsprechend den nachstehenden Bezeichnungen und TVOC/TSVOC-Konzentrationsbereichen. Zur Produktkennzeichnung ist die zutreffende EMICODE-Klasse zu verwenden:

1) Verlegewerkstoffe, Klebstoffe und Bauprodukte

Parameter	EC 1 ^{PLUS}	EC 1	EC 2
	max. zulässige Konzentration [µg/m³]		
TVOC nach 3 Tagen	≤ 750	≤ 1000	≤ 3000
TVOC nach 28 Tagen	≤ 60	≤ 100	≤ 300
TSVOC nach 28 Tagen	≤ 40	≤ 50	≤ 100
R-Wert basierend auf AgBB-NIK-Werten nach 28 Tagen	1	-	-
Summe der nicht bewertbaren VOC	≤ 40	-	-
Formaldehyd nach 3 Tagen	≤ 50	≤ 50	≤ 50
Acetaldehyd nach 3 Tagen	≤ 50	≤ 50	≤ 50
Summe von Form- und Acetaldehyd	≤ 0,05 ppm	≤ 0,05 ppm	≤ 0,05 ppm
Summe von flüchtigen K1A/K1B Stoffen nach 3 Tagen	≤ 10	≤ 10	≤ 10
Jeder flüchtige K1A/K1B Stoff nach 28 Tagen	≤ 1	≤ 1	≤ 1

2) Oberflächenbehandlungsmittel für Parkett, mineralische Böden und elastische Bodenbeläge

Parameter	EC 1 ^{PLUS}	EC 1	EC 2
	max. zulässige Konzentration [µg/m³]		
Summe TVOC + TSVOC nach 28 Tagen	≤ 100 davon max. 40 SVOC	≤ 150 davon max. 50 SVOC	≤ 450 davon max. 100 SVOC
Formaldehyd nach 3 Tagen	≤ 50	≤ 50	≤ 50
Acetaldehyd nach 3 Tagen	≤ 50	≤ 50	≤ 50
Jeder flüchtige K1A/K1B Stoff nach 3 Tagen	≤ 10	≤ 10	≤ 10
Jeder flüchtige K1A/K1B Stoff nach 28 Tagen	≤ 1	≤ 1	≤ 1



Knauf Bauprodukte GmbH & Co.KG · Am Bahnhof 7 · 97346 Iphofen

Sentinel Holding Institut GmbH
Natalie Szczyglowski
Bötzingen Straße 38
79111 Freiburg i. Br.

Produktmanagement

Daniel Vieregge
daniel.vieregge@knauf.com

Betreff:
Renovierfarbe Knauf Sperrgrund
Sehr geehrte Frau Szczyglowski,

26.05.2025

Vielen Dank für Ihr Interesse an unserem Produkt Knauf Sperrgrund.

Knauf Sperrgrund ist als lösemittelfrei und weichmacherfrei nach VdL-RL 01 eingestuft.

Bei Rückfragen stehen wir Ihnen jederzeit gerne zur Verfügung.

Mit freundlichen Grüßen

Knauf Bauprodukte GmbH & Co. KG
Produktmanagement

Mit freundlichen Grüßen

i.A. Daniel Vieregge
Produktmanager Trockenbau

KNAUF



gültig bis
07.06.2027

EPD-DBC-20220146-IBF1-EN

Grundierungen

Deklarierte Produkte

- › Tiefengrund
- › Spezialhaftgrund
- › Sperrgrund
- › Estrichgrund
- › Putzgrund
- › Rotband Universalgrundierung

www.knauf.com



Build on us.

ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	DBC, EFCC, FEICA, IVK
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-DBC-20220146-IBF1-EN
Issue date	08.06.2022
Valid to	07.06.2027

Dispersion-based products, group 1

DBC - Deutsche Bauchemie e.V.

EFCC - European Federation for Construction Chemicals

FEICA - Association of the European Adhesive and Sealant Industry

IVK - Industrieverband Klebstoffe e.V.

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



ECO PLATFORM

EPD
VERIFIED



1. General Information

DBC - Deutsche Bauchemie e.V.
EFCC - European Federation for
Construction Chemicals
FEICA - Association of the European
Adhesive and Sealant Industry
IVK - Industrieverband Klebstoffe e.V.

Programme holder

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

Declaration number

EPD-DBC-20220146-IBF1-EN

This declaration is based on the product category rules:

Dispersion adhesives and primers for floor coverings,
01.2019
(PCR checked and approved by the SVR)

Issue date

08.06.2022

Valid to

07.06.2027



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



Dr. Alexander Röder
(Managing Director Institut Bauen und Umwelt e.V.)

Dispersion-based products, group 1

Owner of the declaration

DBC, Mainzer Landstr. 55, D-60329 Frankfurt a.M.
EFCC, 172 Boulevard du Triomphe, B-1160 Brussels
FEICA, Rue Belliard 40, B-1040 Brussels
IVK, Völklingerstr. 4, D-40219 Düsseldorf

Declared product / declared unit

1 kg / 1 kg; density 1,000 - 1,500 kg/m³

Scope:

This verified EPD entitles the holder to bear the symbol of the Institut Bauen und Umwelt e.V. It exclusively applies to products produced in Europe and applies to a period of five years from the date of issue. This EPD may be used by members of DBC, EFCC, FEICA and IVK and their members provided it has been proven that the respective product can be represented by this EPD. For this purpose, a guideline is available at the secretariats of the four associations. The members of the associations are listed on their respective websites.

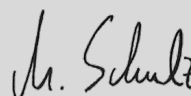
The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

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



Matthias Schulz
(Independent verifier)

2. Product

2.1 Product description/Product definition

This EPD comprises dispersion-based products with a Volatile Organic Compound (VOC) content ≤ 1 % (VOC definition according to *Decopaint Directive*). The products typically consist of organic binding agents based on synthetic and/or natural resins, mineral fillers such as chalk as well as water and smaller volumes of auxiliaries (thickening agents, defoaming agents, surface-active agents, preservatives etc.). They dry physically through evaporation of the water contained therein. They comply with manifold, often specific, functions in the construction, furnishing and repair of buildings. Using dispersion-based products decisively

improves the fitness for use of structures and extends their life expectancy. The product displaying the highest environmental impacts within the class of dispersion-based products considered was used as a representative product for calculating the Life Cycle Assessment results (worst-case approach).

For the placing on the market in the European Union/European Free Trade Association (EU/EFTA) with the exception of Switzerland) products falling under the Regulation (EU) No 305/2011 (*CPR*) need a Declaration of Performance taking into consideration either the relevant harmonised European standard or

the European Technical Assessment and the CE marking. For the application and use of the products the respective national provisions apply.

2.2 Application

Dispersion-based products are used for the following applications:

Module 1: Dispersion adhesives, fixatives, precoatings and primers for floor coverings and parquet flooring

Adhesives for, e.g. tufted carpets with various backings, woven textile coverings, fibre-bonded and natural fibre coverings, resilient coverings (PVC, rubber, PVC-free luxury vinyl tiles), linoleum, insulating bases and underlays, parquet, laminate and wood blocks on surfaces ready for laying. The products are suitable for normal wear in residential and commercial areas, also on heated floor constructions.

Module 2: Dispersion-based tile adhesive

Products for bonding ceramic tiles and paving as well as natural stone for internal and external installations on walls, floors and ceilings

Module 3: Dispersion-based adhesives and sealants

As structural adhesives and sealants: structural and repair adhesives, dispersion filler compounds, joint sealants

Module 4: Dispersion-based products for waterproofing of buildings

Products for waterproofing floors and/or walls in wet rooms inside buildings

Module 5: Dispersion-based primers and bonding agents for concrete and floor screeds

Products to improve the adhesion of e.g. self-levelling compounds or repair mortars on absorbent cement and calcium sulphate screeds, concrete, dry construction boards

Module 6: Dispersion-based products for surface protection of concrete

To increase the durability of concrete and reinforced steel structures as well as for new concrete and for maintenance and repair work (for areas without vehicle traffic)

Module 7: Dispersion-based primers and barrier coatings

Products to protect a substrate from e.g. the immersion of water, thus preventing degradation, corrosion or damage

2.3 Technical Data

The density of the products is between 1,00 and 1,50 g/cm³, other relevant technical data can be found in the manufacturer's technical documentation.

Module 1: Dispersion adhesives, fixatives, precoatings and primers for floor coverings and parquet flooring

Dispersion adhesives for floor coverings have to comply with the requirements of the *EN ISO 22636*. The mechanical requirements of *EN ISO 22636* don't apply to fixatives; their strengths are lower in accordance with their specifications. The performance characteristics of precoatings and primers are subject to the manufacturer's technical

documentation/declaration of performance. Dispersion adhesives for parquet: The test procedures and requirements of the *EN ISO 17178* have to be fulfilled.

Module 2: Dispersion-based tile adhesive

The requirements on essential characteristics according to *EN 12004*, must be maintained. These are:

- Tensile adhesion strength after dry storage (*EN 12004-2*)
 - Tensile adhesion strength after water immersion (*EN 12004-2*)
 - Tensile adhesion strength after heat ageing (*EN 12004*)
 - Tensile adhesion strength after freeze/thaw cycles (*EN 12004-2*)
 - Open time: Tensile strength (*EN 12004-2*)
- Further essential characteristics in accordance with the manufacturer's technical documentation

Module 3: Dispersion-based adhesives and sealants

Performance characteristics in accordance with the manufacturer's technical documentation/declaration of performance

Module 4: Dispersion-based products for waterproofing of buildings

The minimum requirement of *EAD 030352-00-0503* - Liquid applied watertight covering kits for wet room floors and/or walls- must be maintained. The essential characteristics are to be specified in accordance with the European technical assessment (ETA, specification no.).

Module 5: Dispersion-based primers and bonding agents for concrete and floor screeds

Performance characteristics in accordance with the manufacturer's technical documentation

Module 6: Dispersion-based products for surface protection of concrete

The requirements on essential characteristics for all intended uses in accordance with *EN 1504-2*, Tables 1 and 5, must be maintained. These are:

- Permeability to CO₂ (*EN 1062-6*)
- Water vapour permeability (*EN ISO 7783-1/-2*)
- Capillary absorption and permeability to water (*EN 1062-3*)
- Adhesion strength by pull-off test (*EN 1542*)

Further essential characteristics in accordance with the manufacturer's technical documentation/declaration of performance

Module 7: Dispersion-based primers and barrier coatings

The requirements of the *Decopaint Directive* must be maintained.

Essential characteristics in accordance with the manufacturer's technical documentation/declaration of performance.

2.4 Delivery status

Liquid or pasty in containers made of plastic or metal. Typical container sizes contain 1 to 30 kg, usually 10 to 20 kg of product on pallets. For larger applications,

vats with approx. volumes of 200 kg (litres) or IBCs (intermediate bulk containers) with a capacity of 1 tonne (m³) or more are also used. A plastic container was modelled for the Life Cycle Assessment.

2.5 Base materials/Ancillary materials

Dispersion-based products usually comprise at least one synthetic resin dispersion, natural or synthetic resins dispersed in water, mineral fillers (e.g. chalk) and/or pigments. Auxiliaries such as thickening agents, defoaming agents, surface-active and dispersing agents as well as preservatives are used to fine-tune the product features. **Typically**, the products covered by this EPD contain the following range of base materials and auxiliaries (% by mass):

- Synthetic polymer dispersion (solids portion): 5 - 65
- Natural resins, natural resin derivatives: 0 - 25
- Mineral fillers: 0 - 60
- Pigments: 0 - 35
- Water: 15 - 95
- Auxiliaries: 1 - 5
- Thickening agents: < 3
- Dispersing agents/Emulsifying agents: < 2
- Wetting agent: 2
- Other: 0 - 2
- VOC according to *Decopaint Directive*: < 1 %

(mandatory)

These ranges are average values and the composition of products complying with the EPD can deviate from these concentration levels in individual cases. More detailed information is available in the respective manufacturer's documentation (e.g. product data sheets).

Note: For companies to declare their products within the scope of this EPD it is not sufficient to simply comply with the product composition shown above. The application of this EPD is only possible for member companies of DBC, EFCC, FEICA, and IVK member associations and only for specific formulations with a total score below the declared maximum score for a product group according to the associated guidance document.

1. substances from the "Candidate List of Substances of Very High Concern for Authorisation" (SVHC)

If this product contains substances listed in the *candidate list* (latest version) exceeding 0.1 percentage by mass, the relevant information can be found in the safety data sheet of the relevant product covered by this model EPD.

2. CMR substances in categories 1A and 1B

If this product contains other carcinogenic, mutagenic, reprotoxic (CMR) substances in categories 1A or 1B which are not on the *candidate list*, exceeding 0.1 percentage by mass, the relevant information can be found in the safety data sheet of the relevant product covered by this model EPD.

3. Biocide products added to the construction product

If this construction product contains biocide products, the active substances, information on the concentration and/or concentration range, the product type together with information on their hazardous properties are listed in the safety data sheet of the respective product.

2.6 Manufacture

Dispersion-based products are usually mixed discontinuously in batch mode, i.e. in individual batches or a series of individual batches, and filled into the delivery containers.

2.7 Environment and health during manufacturing

As a general rule, no particular environmental or health protection measures other than those specified by law are necessary.

2.8 Product processing/Installation

Dispersion based products are processed on site using suitable tools, usually by hand. The products are applied by trowelling/knife-coating, painting, rolling or spraying. Precautions for safe handling and storage (e.g. air exchange, exhaust ventilation, personal protective measures, conditions for safe storage) must be observed in accordance with the information on the safety data sheet.

Depending on the application and product specifications, between 50 and 1,500 g/m² are applied.

2.9 Packaging

A detailed description of packaging is provided in section 2.4. Empty containers and clean foils can be recycled.

2.10 Condition of use

During the use phase, dispersion-based products are existent as hardened film. They are long-lasting products which protect our buildings in the form of adhesives, primers, coatings or sealants as well as make an essential contribution towards their appearance, function and sustainability.

2.11 Environment and health during use

Option 1 – Products for applications outside indoor areas with permanent stays by people

No risks are known for water, air and soil if the products are used as designated.

Option 2 – Products for applications inside indoor areas with permanent stays by people

When used in indoor areas with permanent stays by people, evidence of the emission performance of construction products in contact with indoor air must be submitted according to national requirements (see chapter 7). No further influences by emissions on the environment and health are known.

2.12 Reference service life

Dispersion-based products fulfill manifold, often specific, functions in the construction or refurbishment of building structures. They decisively improve the usability of building structures and significantly extend their original service lives. The anticipated reference service life depends on the specific installation situation and the exposure associated with the product. It can be influenced by weathering as well as mechanical or chemical load.

2.13 Extraordinary effects

Fire

In terms of the volumes applied, dispersion based products have no or only a marginal influence on the fire performance characteristics of the building structure in which they have been installed.

Water

Dispersion-based products are water-resistant only to a certain degree and their strength can deteriorate when exposed to water for longer periods (of time); detaching from the surface is possible in a worst-case scenario. The components of dispersion-based products are not hazardous to water or only slightly hazardous to water. Owing to the overall low volumes of dispersion-based products used on buildings, no relevant contribution towards environmental damage can be anticipated by buildings featuring dispersion-based products in the event of extraordinary exposure to water.

Mechanical destruction

The mechanical destruction of dispersion-based products does not lead to any decomposition products which are harmful to the environment or health.

2.14 Re-use phase

According to present knowledge, no environmentally hazardous effects in terms of landfilling are to be generally anticipated through dismantling and recycling components to which dispersion-based products have been applied and on which they have dried.

2.15 Disposal

The low amounts of a dispersion-based product applied to a construction product will not interfere with the disposal/recycling of this.

Hardened product residue mechanically removed from substrates must be disposed of as commercial/construction waste. The following waste codes according to the European List of Waste (2000/532/EC) can apply:

Hardened product residue:

080112 Paint and varnish waste with the exception of that covered by 08 01 11

080410 Adhesive and sealant compound waste with the exception of that covered by 08 04 09

2.16 Further information

More information is available on the manufacturer's product or safety data sheets and is available on the manufacturer's websites or on request. Valuable technical information is also available on the associations' websites.

3. LCA: Calculation rules

3.1 Declared Unit

This EPD refers to the declared unit of 1 kg of dispersion-based product, group 1; applied into the building with a density of 1,000 - 1,500 kg/m³ in accordance with the *IBU PCR* part B for dispersion adhesives and primers for floor coverings.

The results of the Life Cycle Assessment provided in this declaration have been selected from the product with the highest environmental impact (worst-case scenario).

Depending on the application, a corresponding conversion factor such as the density to convert volumetric use to mass must be taken into consideration.

The Declaration type is according to *EN 15804*: Cradle to gate with options, modules C1–C3, and module D (A1–A3, C, D) and additional modules (A4–A5).

Declared unit

Name	Value	Unit
Declared unit	1	kg
Gross density	1,000-1,500	kg/m ³

3.2 System boundary

Modules A1, A2 and A3 are taken into consideration in the LCA:

- A1 Production of preliminary products
 - A2 Transport to the plant
 - A3 Production incl. provision of energy, production of packaging as well as auxiliaries and consumables and waste treatment
 - A4 Transport to site
 - A5 Installation, product applied into the building during A5 phase operations and packaging disposal.
- The end of life for the packaging material considered is described below:
- Incineration, for materials like plastic and wood.

-C1-C2-C3-D

The building deconstruction (demolition process) takes place in the C1 module which considers energy production and consumption in terms of diesel and all the emissions connected with the fuel-burning process to run the machines. After the demolition, the product is transported to the end-of-life processing (C2 module) where all the impacts related to the transport processes are considered. For precautionary principle and as a worst-case scenario, thermal treatment is the only end of life scenario considered. This is modelled by the incineration process (module C3) where the product ends its life cycle.

Module D accounts for potential benefits that are beyond the defined system boundaries. Credits are generated during the incineration of wastes and related electricity produced that are occurring in the A5 module.

3.3 Estimates and assumptions

For this EPD formulation and production data defined and collected by FEICA were considered. Production waste was assumed to be disposed of by incineration without credits as a worst-case.

An average of plastic containers and wooden pallets was considered in the LCA.

3.4 Cut-off criteria

All raw materials submitted for the formulations and production data were taken into consideration. The manufacture of machinery, plant and other infrastructure required for the production of the products under review was not taken into consideration in the LCA.

Transport of packaging materials is excluded.

3.5 Background data

Data from the *GaBi* database SP40 (2020) was used as background data.

3.6 Data quality

Representative products were applied for this EPD and the product in the group displaying the highest environmental impact was selected for calculating the LCA results. The background datasets used are less than 4 years old.

Production data and packaging are based on details provided by the manufacturer. The formulation used for evaluation refers to a specific product.

The data quality of the background data is considered to be good.

3.7 Period under review

Representative formulations are valid for 2021.

3.8 Allocation

Mass allocation has been applied when primary data have been used and implemented into the LCA model.

3.9 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.

The *GaBi* database SP40 (2020) was used.

4. LCA: Scenarios and additional technical information

Characteristic product properties

Information on biogenic Carbon

The packaging material contains biogenic carbon content which is presented below.

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	0.016	kg C

For the preparation of building life cycle assessments, it must be taken into account that in module A5 (installation in the building) the biogenic amount of CO₂ (0.016 kg C * 3.67 = 0.059 kg CO₂-eq.) of the packaging bound in module A1-A3 is mathematically booked out.

Transport to the building site (A4)

Name	Value	Unit
Transport distance	1000	km
Gross weight	34 - 40	t
Payload capacity	27	t

Installation into the building (A5)

Name	Value	Unit
Other resources for packaging material	0.067	kg
Material loss	0.01	kg

Material loss regards the amount of product not used during the application phase into the building. This amount is 1% of the product, impacts related to the production of this part are charged to the A5 module. This percentage is considered as waste to disposal and impacts of its end of life have been considered in the LCA model and declared in A5.

End of life (C1-C3)

Name	Value	Unit
Collected as mixed construction waste	1	kg
Incineration	1	kg

5. LCA: Results

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

DEVELOPMENT, MNR, MODEL 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	ND	ND	MNR	MNR	MNR	ND	ND	X	X	X	ND	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 kg of dispersion-based product, group 1

Core Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
GWP-total	[kg CO ₂ -Eq.]	1.32E+0	5.11E-2	1.73E-1	2.79E-4	1.24E-2	9.45E-1	-3.98E-1
GWP-fossil	[kg CO ₂ -Eq.]	1.36E+0	5.06E-2	8.81E-2	2.66E-4	1.18E-2	4.29E-1	-3.97E-1
GWP-biogenic	[kg CO ₂ -Eq.]	-5.05E-2	1.48E-4	8.53E-2	1.24E-5	5.42E-4	5.15E-1	-8.96E-4
GWP-luluc	[kg CO ₂ -Eq.]	4.52E-4	4.10E-4	6.04E-6	6.39E-9	2.79E-7	3.50E-5	-2.51E-4
ODP	[kg CFC11-Eq.]	3.00E-14	6.08E-18	3.18E-16	2.84E-20	1.24E-18	3.02E-16	-3.72E-15
AP	[mol H ⁺ -Eq.]	4.90E-3	1.52E-4	7.29E-5	3.60E-6	3.73E-5	5.25E-4	-5.26E-4
EP-freshwater	[kg P-Eq.]	2.65E-5	1.54E-7	2.68E-7	5.75E-11	2.51E-9	1.04E-7	-4.62E-7
EP-marine	[kg N-Eq.]	1.03E-3	6.75E-5	1.75E-5	1.63E-6	1.72E-5	2.01E-4	-1.39E-4
EP-terrestrial	[mol N-Eq.]	1.24E-2	7.56E-4	2.36E-4	1.79E-5	1.89E-4	2.52E-3	-1.49E-3
POCP	[kg NMVOC-Eq.]	3.63E-3	1.33E-4	5.62E-5	4.91E-6	3.39E-5	5.22E-4	-4.02E-4
ADPE	[kg Sb-Eq.]	6.50E-7	3.63E-9	6.77E-9	8.06E-12	3.52E-10	4.62E-9	-6.06E-8
ADPF	[MJ]	3.30E+1	6.73E-1	3.61E-1	3.81E-3	1.66E-1	5.52E-1	-6.70E+0
WDP	[m ³ world-Eq deprived]	4.60E-1	4.52E-4	2.10E-2	5.27E-7	2.30E-5	1.57E-1	-3.70E-2

Caption: 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 kg of dispersion-based product, group 1

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
PERE	[MJ]	4.66E+0	3.79E-2	6.43E-1	1.20E-5	5.25E-4	9.36E-2	-1.32E+0
PERM	[MJ]	5.85E-1	0.00E+0	-5.85E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	[MJ]	5.25E+0	3.79E-2	5.83E-2	1.20E-5	5.25E-4	9.36E-2	-1.32E+0
PENRE	[MJ]	1.78E+1	6.74E-1	1.31E+0	3.81E-3	1.67E-1	1.49E+1	-6.70E+0
PENRM	[MJ]	1.53E+1	0.00E+0	-9.53E-1	0.00E+0	0.00E+0	-1.43E+1	0.00E+0
PENRT	[MJ]	3.30E+1	6.74E-1	3.62E-1	3.81E-3	1.67E-1	5.52E-1	-6.70E+0
SM	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	[MJ]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	[MJ]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	[m ³]	1.19E-2	4.38E-5	5.03E-4	2.16E-8	9.41E-7	3.70E-3	-1.53E-3

Caption: 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 kg of dispersion-based product, group 1

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
HWD	[kg]	8.74E-9	3.14E-8	1.23E-10	3.70E-13	1.62E-11	1.77E-9	-2.66E-9
NHWD	[kg]	1.30E-2	1.03E-4	2.35E-3	3.90E-7	1.70E-5	1.36E-1	-2.94E-3
RWD	[kg]	6.56E-4	8.34E-7	8.31E-6	4.09E-9	1.79E-7	2.51E-5	-4.51E-4
CRU	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MER	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EEE	[MJ]	0.00E+0	0.00E+0	2.77E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EET	[MJ]	0.00E+0	0.00E+0	5.01E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0

Caption: 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 kg of dispersion-based product, group 1

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
PM	[Disease Incidence]	ND	ND	ND	ND	ND	ND	ND
IRP	[kBq U235-Eq.]	ND	ND	ND	ND	ND	ND	ND
ETP-fw	[CTUe]	ND	ND	ND	ND	ND	ND	ND
HTP-c	[CTUh]	ND	ND	ND	ND	ND	ND	ND
HTP-nc	[CTUh]	ND	ND	ND	ND	ND	ND	ND
SQP	[-]	ND	ND	ND	ND	ND	ND	ND

Caption	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
---------	---

Potential Human exposure efficiency relative to U235, Disclaimer 1 – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor 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.

ADP minerals & metals, ADP fossil, WDP, ETF-fw, HTP-c, HTP-nc, SQP, Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

Additional environmental impact indicators (suggested by *EN15804*, table 4) are not declared in the EPD. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high and as there is limited experience with the indicator (see ILCD classification in *EN 15804*, table 5). For this reason, results based on these indicators are not considered suitable for a decision-making process and are thus not declared in the EPD.

6. LCA: Interpretation

The majority of impacts are associated with the production phase (A1-A3). The most significant contribution to the production phase impacts is the upstream production of raw materials as the main driver. Another contributor in the production phase, in the category of Photochemical ozone formation (POCP), is the plastic used as a packaging material. Emissions associated with the manufacturing of products also have some influence on Ozone Depletion Potential (ODP) in the production phase. In all EPDs, CO₂ is the most important contributor to Global Warming Potential (GWP). For the Acidification Potential (AP), NO_x and SO₂ contribute the largest share.

The majority of life cycle energy consumption takes place during the production phase (A1-A3). Significant contributions to Primary Energy Demand – Non-renewable (PENRT) come from the energy resources used in the production of raw materials. The largest contributor to Primary Energy Demand – Renewable (PERT) impacts comes from the consumption of

renewable energy resources required for the generation and supply of electricity. It should be noted that Primary Energy Demand – Renewable (PERT) generally represents a small percentage of the production phase primary energy demand with the bulk of the demand coming from non-renewable energy resources.

Transportation to the construction site (A4) and the installation process (A5) make a low contribution to all impacts. Climate change from land-use change is the only indicator influenced by transport processes, due to the diesel production used as fuel because part of this diesel has been produced from bio-based raw materials.

The installation phase influence mainly climate change indicators, due to the impact related to the incineration processes used for packaging waste treatment and residual product treatment (1 % of the total mass).

The end-of-life phases influence climate change indicators, due to the thermal treatment process of the dispersion-based product occurring in the C3 module.

7. Requisite evidence

VOC

Special tests and evidence have not been carried out or provided within the framework of drawing up this Model EPD. Some member states require special documentation on VOC emissions into indoor air for specific areas of application. This documentation, as well as documentation for voluntary VOC labelling, has to be provided separately and is specific for the product in question.

Evidence pertaining to VOC emissions shall show

- either an attestation of compliance with,
- or documentation of test data that are required in

any of the existing regulations or in any of the existing voluntary labelling programs for low-emitting products, as far as these

(1) include limits for the parameters TVOC, TSVOC, carcinogens, formaldehyde, acetaldehyde, LCI limits for individual substances (including but not limited to the European list of harmonized LCIs), and the R-value;

(2) base their test methods on *EN 16516*;

(3) perform testing and apply the limits after 28 days of storage in a ventilated test chamber, under the conditions specified in *EN 16516*; some regulations and programs also have limits after 3 days, on top of the 28 days limits;

(4) express the test results as air concentrations in the European Reference Room, as specified in EN 16516.

Examples of such regulations are the *Belgian Royal Decree C-2014/24239*, or the *German AgBB/ ABG*. Examples of such voluntary labelling programs are *EMICODE*, *Blue Angel* or *Indoor Air Comfort*.

Relevant test results shall be produced either by an ISO 17025 accredited commercial test lab or by a qualified internal test lab of the manufacturer. Examples for the applied limits after 28 days of storage in a ventilated test chamber are:

- TVOC: 1000 µg/m³
- TSVOC: 100 µg/m³

- Each carcinogen: 1 µg/m³
- Formaldehyde: 100 µg/m³
- LCI: different per substance involved
- R-value: 1 (meaning that, in total, 100 % of the combined LCI values must not be exceeded).

Informative Annexes (2 tables):

Table 1 shown below is an overview of the most relevant regulations and specifications as of October 2021, as regards requirements after 3 days of storage in a ventilated test chamber.

Table 2 provides an overview of the most relevant regulations and specifications as of October 2021, as regards requirements after 28 days of storage in a ventilated test chamber. Some details may be missing in the table due to lack of space. Values given represent maximum values/limits.

	TVOC µg/m ³	Sum of carcinogens. C1A,CA2 µg/m ³	Formaldehyde µg/m ³	Acetaldehyde µg/m ³	Sum of Form- and Acetaldehyde
German AgBB/ABG regulation	10 000	10	-/-	-/-	-/-
Belgian regulation	10 000	10	-/-	-/-	-/-
EMICODE EC1	1 000	10	50	50	50 ppb
EMICODE EC1 ^{PLUS}	750	10	50	50	50 ppb

	TVOC µg/m ³	TSVOC µg/m ³	Each carcinogen C1A,CA2 µg/m ³	Formalde- hyde µg/m ³	Acetalde- hyde µg/m ³	LCI	R value	Specials	Sum of non-LCI & non- identified µg/m ³
Belgian regulation	1000	100	1	100	200	Belgian list	1	Toluene 300 µg/m ³	-/-
French regulations class A+	1000	-/-	-/-	10	200	-/-	-/-	List of 8 VOCs, 4 CMR	-/-
French regulations class A	1500	-/-	-/-	60	300	-/-	-/-	List of 8 VOCs, 4 CMR	-/-
French regulations class B	2000	-/-	-/-	120	400	-/-	-/-	List of 8 VOCs, 4 CMR	-/-
French regulations class C	>2000	-/-	-/-	>120	>400	-/-	-/-	List of 8 VOCs, 4 CMR	-/-
German DIBt/AgBB regulation	1000	100	1	100	300	German AgBB list	1	-/-	100
EMICODE EC1	100	50	1	(after 3 days)	(after 3 days)	-/-	-/-	-/-	-/-
EMICODE EC1 ^{PLUS}	60	40	1	(after 3 days)	(after 3 days)	German AgBB list	1	-/-	40
Finnish M1, sealants	20	-/-	1	10	300	EU LCI list	-/-	Ammonia, odour	-/-
Finnish M1, adhesives	200 µg/m ² h	-/-	5 µg/m ² h	50 µg/m ² h	300	EU LCI list	-/-	Ammonia, odour	-/-

8. References

EN 1062-3

EN 1062-3:2008-04, Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability

EN 1062-6

EN 1062-6:2002-10, Paints and varnishes - Coating materials and coating systems for exterior masonry

and concrete - Part 6: Determination of carbon dioxide permeability

EN 1504-2

EN 1504-2:2004-10, Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete

EN 1542

EN 1542:1999-07, Products and systems for the protection and repair of concrete structures - Test methods - Measurement of bond strength by pull-off

EN ISO 7783-1/-2

EN ISO 7783-1/-2:2019-02, Paints and varnishes - Determination of water-vapour transmission properties - Cup method

EN 12004

EN12004:2012, Adhesives for ceramic tiles

EN 12004-2

EN 12004-2:2017, Adhesives for ceramic tiles - Part 2: Test methods

ISO 14025

DIN EN ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804

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

EN 16516

EN 16516:2017
Construction products - Assessment of release of dangerous substances - Determination of emissions into indoor air

EN ISO 17025

EN ISO 17025: 2018-03
General requirements for the competence of testing and calibration laboratories

EN ISO 17178

EN ISO 17178:2020, Adhesives - Adhesives for bonding parquet to subfloor - Test methods and minimum requirements

EN ISO 22636

EN ISO 22636:2020, Adhesives - Adhesives for floor coverings - Requirements for mechanical and electrical performance

EAD 030352-00-0503

EAD 030352-00-0503:2019-01, Watertight covering kits for wet room floors and or walls Part 1: Liquid Applied Coverings with or without wearing surface Part 2: Kits based on flexible sheets Part 3: Kits based on inherently watertight boards

(EU) No 528/2012

Biocidal Products Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products (current consolidated version: 2021-06)

2000/532/EC

Commission decision dated 3 May 2000 replacing decision 94/3/EC on a waste directory in accordance with Article 1 a) of Council Directive 75/442/EEC on waste and Council decision 94/904/EC on a directory of hazardous waste in terms of Article 1, paragraph 4 of Directive 91/689/EEC on hazardous waste

Belgian Royal Decree C-2014/24239

Belgisch Staatsblad 8 MEI 2014, p. 60603. — Koninklijk besluit tot vaststelling van de drempelniveaus voor de emissies naar het binnenmilieu van bouwproducten voor bepaalde geoogde gebruiken

Blue Angel

Environmental label organised by the federal government of Germany www.blauer-engel.de

Candidate list

Candidate List of substances of very high concern for Authorisation, published in accordance with Article 59(10) of the REACH Regulation, ECHA, www.echa.europa.eu/candidate-list-table

CPR

CPR Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

Decopaint Directive

Directive 2004/42/CE of the European Parliament and the council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC

EMICODE

EMICODE, GEV – Gemeinschaft
Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e. V. (pub.).www.emicode.de

GaBi 10 software & documentation

Data base for Life Cycle Engineering LBP, University of Stuttgart and Sphera, documentation of GaBi 10 data sets <http://documentation.gabi-software.com/>, 2020

German AgBB

Committee for Health-related Evaluation of Building Products: health-related evaluation of emissions of volatile organic compounds (VOC and SVOC) from building products; status: June 2012
www.umweltbundesamt.de/produkte/bauprodukte/agb/b.htm

IBU 2021

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

Indoor Air Comfort

Product certification by Eurofins, Hamburg, Germany
www.eurofins.com

PCR Part A

Product Category Rules for Building-Related Products and Services, Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project report, Version 1.1, Institut Bauen und Umwelt e.V., 2021-01

PCR Part B

Product Category Rules for Construction Products. Part B: Dispersion adhesives and primers for floor coverings, Version 1.7, 2019.

REACH

Directive (EG) No. 1907/2006 of the European Parliament and of the Council dated 18 December

2006 on the registration, evaluation, approval and restriction of chemical substances (REACH), for establishing a European Agency for chemical substances, for amending Directive 1999/45/EC and for annulment of Directive (EEC) No. 793/93 of the Council, Directive (EC) No. 1488/94 of the Commission, Guideline 76/769/EEC of the Council and Guidelines 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC of the Commission.

**Publisher**

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

Tel +49 (0)30 3087748- 0
Fax +49 (0)30 3087748- 29
Mail info@ibu-epd.com
Web www.ibu-epd.com

**Programme holder**

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

Tel +49 (0)30 - 3087748- 0
Fax +49 (0)30 - 3087748 - 29
Mail info@ibu-epd.com
Web www.ibu-epd.com

**Author of the Life Cycle Assessment**

Sphera Solutions GmbH
Hauptstraße 111- 113
70771 Leinfelden-Echterdingen
Germany

Tel +49 711 341817-0
Fax +49 711 341817-25
Mail info@sphera.com
Web www.sphera.com



**Industrieverband
Klebstoffe e.V.**

**Owner of the Declaration**

FEICA - Association of the
European Adhesive and Sealant
Industry
Rue Belliard 40 box 10
1040 Brussels
Belgium

Tel +32 (0)267 673 20
Fax +32 (0)267 673 99
Mail info@feica.eu
Web www.feica.eu

EFCC - European Federation for
Construction Chemicals
Boulevard du Triomphe 172
1160 Brussels
Belgium

Tel +32289720-39
Fax +32289720-37
Mail info@efcc.be
Web www.efcc.eu

Industrieverband Klebstoffe e.V
Völklinger Straße 4
40219 Düsseldorf
Germany

Tel +49 (0)211 67931-10
Fax +49 (0)211 67931-33
Mail info@klebstoffe.com
Web www.klebstoffe.com

Deutsche Bauchemie e.V.
Mainzer Landstr. 55
60329 Frankfurt
Germany

Tel +49 (0)69 2556-1318
Fax +49 (0)69 2556-1319
Mail info@deutsche-bauchemie.de
Web www.deutsche-bauchemie.de