



# SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

**15206-10-1068**

## MineralAktiv Fassadenfarbe

Product group: Paints / Varnishes / Oils / Glaze - Mineral paints (Silicate/Lime paints)

Knauf Gips KG  
Am Bahnhof 7  
97346 Iphofen



### Product qualities:









*Köttner*

Helmut Köttner  
Scientific Director

Freiburg, 12 March 2026



## Contents

 QNG - Qualitätssiegel Nachhaltiges Gebäude	1
 DGNB New Construction 2023	2
 DGNB New Construction 2018	3
 BNB-BN Neubau V2015	4
 EU taxonomy	5
 BREEAM DE Neubau 2018	6
Product labels	7
Legal notices	8
Technical data sheet/attachments	9

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





Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## 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	5.2 Facade paints including primers	VOC/ / biocides / heavy metals	QNG ready

**Verification:** Sicherheitsdatenblatt vom 21.05.2022



Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## **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)	5 Coating substances for mineral surfaces outdoors such as concrete	VOC, biocides	Quality level 4
<b>Verification:</b> Sicherheitsdatenblatt vom 21.05.2022			

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	5 Coating substances for mineral surfaces outdoors	VOC, biocides	Quality level 4
<b>Verification:</b> Sicherheitsdatenblatt vom 21.05.2022			



Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## **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	5 Coating materials for exterior mineral surfaces such as concrete	VOC	Quality level 4
<b>Verification:</b> Sicherheitsdatenblatt vom 21.05.2022			



Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## **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	6a Exterior wall paints including primers (according to Decopaint Directive, Category C)	VOC / biocides / heavy metals	Quality level 5
<b>Verification:</b> Sicherheitsdatenblatt vom 21.05.2022			



Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## 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		Substances according to Annex C	EU taxonomy compliant

**Verification:** Sicherheitsdatenblatt vom 21.05.2022



Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## 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			Not relevant for assessment



Product:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## 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.



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:

**MineralAktiv Fassadenfarbe**

SHI Product Passport no.:

**15206-10-1068**



## Legal notices

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

---

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

---

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



### Publisher

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



## MineralAktiv Fassadenfarbe

Hybrid-Fassadenfarbe mit optimiertem Feuchtmanagement

### Produktbeschreibung

Strukturerhaltende, mineralische Fassadenfarbe auf Hybrid-Bindemittelbasis ohne Zusatz von Weichmachern sowie Konservierungs- und Lösemitteln.

### Zusammensetzung

Mineralisches Bindemittel, Siliconharz-Emulsion, Polymerdispersion, Wasser, Titandioxid, Calciumcarbonate, silikatische Füllstoffe, Additive.

### Lagerung

Kühl und frostfrei im Originalgebinde 18 Monate lagerfähig. Anbruchgebinde dicht verschließen.

### Qualität

Das Produkt unterliegt der ständigen, werkseigenen Produktionskontrolle und entspricht der EN 1062-1 sowie der DIN 18363 Abs. 2.4.1.

### Eigenschaften und Mehrwert

- Für außen
- Mineralisch matter Charakter
- Optimiertes Feuchtmanagement für Algen- und Pilzprävention
- Ohne biozide Filmkonservierer
- Hoch diffusionsoffen
- Sehr hohes Deckvermögen
- Wasserverdünnbar
- Weiß (ca. RAL 9016)
- Nach Farbtonfächer Knauf ColorConcept eingeschränkt tönbar



### Anwendungsbereich

Als Egalisationsanstrich oder Beschichtungssystem auf allen mineralischen Untergründen anwendbar.

Durch das optimierte Feuchtmanagement ist MineralAktiv Fassadenfarbe zur Algen- und Pilzprävention bestens geeignet. MineralAktiv Fassadenfarbe ist hoch ergiebig und hat ein edles, mineralisches Erscheinungsbild.

Durch das sehr hohe Deckvermögen und die leichte Verarbeitung kann MineralAktiv Fassadenfarbe wirtschaftlich angewendet werden.

MineralAktiv Fassadenfarbe ist zum Streichen, Rollen und Spritzen auf folgenden Untergründen geeignet:

- Auf MineralAktiv Scheibenputz / MineralAktiv Scheibenputz Dry
- Auf mineralischen Oberputzen
- Auf organischen Oberputzen
- Auf Silikatputzen
- Auf Sanierputzen
- Auf Altanstrichen auf Silikatbasis

### Ausführung

#### Untergrund und Vorbehandlung

Untergrund	Vorbehandlung
Putze der Mörtelgruppe P II und P III	Grob poröse, sandende, stark saugende Untergründe mit Grundol vorbehandeln
Kalksandstein-Sichtmauerwerk	Evtl. Salzausblühungen trocken abbürsten
Alte bzw. lose Kalk- und Dispersionsanstriche	Gründlich durch Abstoßen und Hochdruckreinigen entfernen und nachwaschen. Ggf. Grundierung mit Grundol
Neue, mineralische Oberputze (z. B. MineralAktiv Scheibenputz, Noblo, SP 260 Pro)	Nach ausreichender Standzeit (mindestens 7 Tagen) können helle bis pastelle Farbtöne ohne Grundierung beschichtet werden. Bei intensiven Farbtönen ist ein Voranstrich mit Casiol Grund im annähernd gleichen Farbton zu empfehlen
Mineralische Altputze	Hohlstellen heraus schlagen, Putzgrund gründlich säubern und entsprechend dem vorhandenen Material und der Struktur aufputzen. Neuputzstellen ausreichend trocknen lassen, ggf. flutieren und nachwaschen
Tragfähige, aber kreadende oder sandende Oberflächen	Mit Grundol vorbehandeln. Der Tiefengrund muss vollständig einziehen
Nicht tragfähige Farbschichten	Vollständig entfernen

#### Vorarbeiten

Putzgrund nach VOB Teil C, DIN 18350, DIN 18345, Abs. 3.1 bzw. nach VOB Teil B, DIN 1961 § 4 Ziffer 3 prüfen. Putzgrund von Staub und losen Teilen säubern und grobe Unebenheiten beseitigen.

Schmutzempfindliche Bauteile vor Beginn entsprechend dem Merkblatt „Abklebe- und Abdekarbeiten für Maler- und Stuckateurarbeiten“ des Bundesverbandes Ausbau und Fassade schützen. Wetterseitige Arbeitsflächen vor Niederschlag und direkter Sonneneinstrahlung schützen.

Alle Untergründe müssen tragfähig, trocken, eben, fett- und staubfrei sowie frei von haftmindernden Rückständen sein. Untergrundvorbehandlung

gemäß Tabelle Untergrund und Vorbehandlung. Vorhandene Beschichtungen (Anstriche und Altputze) auf Tragfähigkeit und Verträglichkeit mit MineralAktiv Fassadenfarbe prüfen.

#### Achtung

Bei Anwendung der MineralAktiv Fassadenfarbe auf Produkten mit SPRINT-Technologie sind die Technischen Merkblätter der entsprechenden SPRINT-Produkte zu berücksichtigen.

#### Verarbeitung

Vor Arbeitsbeginn Farb- und Chargennummer bei allen Gebinden kontrollieren sowie Farbton durch Probeanstrich auf Richtigkeit prüfen. Unterschiedliche Gebinde nicht an einer Hausseite verarbeiten oder vorher in einem sauberen Gefäß miteinander mischen. Bei Nachbestellungen die Kommissionsnummer der vorherigen Lieferung angeben.

Inhalt der Gebinde gut aufrühren. MineralAktiv Fassadenfarbe wird mit bis zu 3 % Wasser verarbeitungsfertig eingestellt. Bei Airless-Verarbeitung mit ca. 5 % Wasser verdünnen. Als Voranstrich kann mit bis zu 10 % Wasser verdünnt werden. Bei zu starker Verdünnung verschlechtern sich das Deckvermögen sowie die zugesicherten Eigenschaften.

MineralAktiv Fassadenfarbe dünn, gleichmäßig, ansatzfrei und nass in nass auf die Putzfläche (Oberputz/Anstrich) auftragen. Zusammen einsehbare Flächen immer am gleichen Tag fertigstellen. Innerhalb einer Fläche nicht absetzen. Immer so arbeiten, dass an Gerüstübergängen nass in nass gerollt oder gestrichen wird.

Die Verarbeitung erfolgt von Hand mit Farbrolle oder Malerbürste. Große Flächen lassen sich auch mit einem Airless-Gerät spritzen, sofern Verunreinigungen durch den Farbnebel nicht störend sind.

#### Verarbeitungstemperatur/-klima

Nicht unter +5 °C und über +30 °C Luft-, Material- und/oder Untergrundtemperaturen verarbeiten. Frische Beschichtungen vor Feuchtigkeitseinwirkungen (z. B. Regen) und vor zu schnellem Wasserentzug, z. B. durch direkte Sonneneinstrahlung oder starken Wind, durch geeignete Maßnahmen wie Schutzplanen schützen. MineralAktiv Fassadenfarbe nicht auf vorgeheizte Untergründe auftragen.

#### Trocknung

MineralAktiv Fassadenfarbe ist bei +20 °C und 65 % relativer Luftfeuchtigkeit nach ca. 8 Stunden oberflächentrocken. Bei niedrigerer Temperatur und/oder höherer Luftfeuchtigkeit verlängern sich diese Zeiten. Zwischen den Anstrichen mindestens 12 Stunden Trocknungszeit einhalten, jedoch maximal 7 Tage. Durchgetrocknet und belastbar nach mindestens 3 Tagen.

#### Hinweise

Für die Anstrichausführung gelten DIN 18363 VOB Teil C Absatz 3 sowie die allgemein anerkannten Regeln der Bautechnik und gültige Richtlinien. Zur Vermeidung von Ansätzen nass in nass in einem Arbeitsgang beschichten.

Auf Grund unterschiedlichster Witterungs- und Baustellenbedingungen können ggf. Farbton- und Oberflächenschattierungen auftreten.

Bei mechanischer Beanspruchung von Oberflächen mit dunklen oder intensiven Farbtönen kann sich an den betroffenen Stellen der Farbton verändern (Weißbruch) – die Produktqualität und Funktionalität wird dadurch nicht beeinflusst.

<b>Hinweise</b>	MineralAktiv Fassadenfarbe ist frei von einer Filmkonservierung. Ein dauerhaftes Ausbleiben von Algen- oder Pilzbefall kann nicht zugesichert werden, da die Anfälligkeit von den örtlichen Gegebenheiten und den vorherrschenden Umweltbedingungen abhängt.
	Bei dunklen Farbtönen kann ein unterschiedliches Saugverhalten des Untergrundes bei Feuchtigkeitsaufnahme zu temporären Farbtonabweichungen führen. Dieser Effekt ist reversibel und für mineralische Systeme nicht unüblich. Nach Trocknung der Beschichtung ist dieser Effekt in der Regel verschwunden.

### Technische Daten

Bezeichnung	Norm	Einheit	MineralAktiv Fassadenfarbe
Glanz	EN ISO 2813	Klasse	G3 (matt)
Trockenschichtdicke	EN 1062-1	Klasse	E3
Korngröße	EN ISO 1524	Klasse	S1 (fein)
Wasserdampf-Diffusionsstromdichte	EN ISO 7783-2	Klasse	V1 (hoch)
Durchlässigkeit für Wasser	EN 1062-3	Klasse	W2 (mittel)
Farbtonbeständigkeit	BFS-Merkblatt Nr. 26	Klasse	A
Dichte	–	g/cm <sup>3</sup>	ca. 1,46
Farbton	–	–	Weiß (ca. RAL 9016)
VOC-Gehalt	Richtlinie 2004/42/EG, Anhang II, Tabelle A (Grenzwert Produktunterkategorie c: 40 g/l)	g/l	≤ 1

Die technischen Daten wurden nach den jeweils gültigen Prüfnormen ermittelt. Abweichungen davon sind unter Baustellenbedingungen möglich.

### Materialbedarf und Verbrauch

Untergrund	Auftrag	Verbrauch l/m <sup>2</sup>	Ergiebigkeit m <sup>2</sup> /Eimer	
			12,5 l	5,0 l
Glatt	Einfach	ca. 0,18	ca. 69	ca. 28
Glatt	Zweifach	ca. 0,28	ca. 45	ca. 18
Rau	Einfach	ca. 0,25	ca. 50	ca. 20
Rau	Zweifach	ca. 0,40	ca. 32	ca. 12,5

Der exakte Materialbedarf ist durch einen Probeauftrag am Objekt zu ermitteln.

### Lieferprogramm

Bezeichnung	Ausführung	Farbe	Verpackungseinheit	Artikelnummer	EAN
MineralAktiv Fassadenfarbe	12,5 l	Weiß	32 Eimer/Palette	00525717	4003950101847
		Getönt	32 Eimer/Palette	00525719	4003950101854
	5,0 l	Weiß	68 Eimer/Palette	00778805	4003950144028
		Getönt	68 Eimer/Palette	00778813	4003950144080

### Nachhaltigkeit und Umwelt

Kurzbeschreibung	Einheit	Wert
Anforderungen des AgBB-Schemas	–	Erfüllt
VOC-Gehalt nach RL2004/42/EG	g/l	≤ 1g/l
Lösemittel- und weichmacherfrei nach VdL-RL01 (Revision 7)	–	Erfüllt



**Sicherheitsdatenblatt beachten!**

Sicherheitsdatenblätter und CE-Kennzeichnung siehe [pd.knauf.de](http://pd.knauf.de)



Videos für Knauf Systeme und Produkte sind unter folgendem Link zu finden:  
[youtube.com/knauf](https://youtube.com/knauf)



Ausschreibungstexte für alle Knauf Systeme und Produkte mit Exportfunktionen für Word, PDF und GAEB  
[ausschreibungcenter.com](http://ausschreibungcenter.com)



Im [Download Center](http://www.knauf.com) der [www.knauf.com](http://www.knauf.com) stehen alle Dokumente der Knauf Gips aktuell und übersichtlich zur Verfügung.

**Knauf Direkt**

Technischer Auskunft-Service:

▶ **Tel.: 09323 916 3222 \***

▶ [knauf-direkt@knauf.com](mailto:knauf-direkt@knauf.com)

▶ [www.knauf.com](http://www.knauf.com)

**Knauf Gips KG** Am Bahnhof 7, 97346 Iphofen

\* Unser Technischer Auskunft-Service steht nur für gewerbliche Anliegen zur Verfügung. Sie können sich mit ihren Firmendaten hierfür registrieren.  
Nähere Informationen finden Sie hier: [www.knauf.de/tas](http://www.knauf.de/tas)

Technische Änderungen vorbehalten. Es gilt die jeweils aktuelle Auflage. Die enthaltenen Angaben entsprechen unserem derzeitigen Stand der Technik. Die allgemein anerkannten Regeln der Bautechnik, einschlägige Normen, Richtlinien und handwerklichen Regeln müssen vom Ausführenden neben den Verarbeitungsvorschriften beachtet werden. Unsere Gewährleistung bezieht sich nur auf die einwandfreie Beschaffenheit unseres Materials. Verbrauchs-, Mengen- und Ausführungsangaben sind Erfahrungswerte, die im Falle abweichender Gegebenheiten nicht ohne weiteres übertragen werden können. Alle Rechte vorbehalten. Änderungen, Nachdruck und fotomechanische sowie elektronische Wiedergabe, auch auszugsweise, bedürfen unserer ausdrücklichen Genehmigung.

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878  
Ausgabedatum: 12.05.2022 Überarbeitungsdatum: 12.05.2022 Ersetzt Version vom: 25.11.2021 Version: 5.0



### ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

#### 1.1. Produktidentifikator

Produktform : Gemisch  
Produktname : MineralAktiv Fassadenfarbe  
Produkt-Code : 13745\_0010

#### 1.2. Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird

##### 1.2.1. Relevante identifizierte Verwendungen

Hauptverwendungskategorie : Gewerbliche Nutzung. Verwendung durch Verbraucher.  
Verwendung des Stoffs/des Gemischs : Beschichtungsstoff

##### 1.2.2. Verwendungen, von denen abgeraten wird

Keine weiteren Informationen verfügbar

#### 1.3. Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt

##### Lieferant

Knauf Gips KG  
Am Bahnhof, 7  
DE- 97346 Iphofen – Bayern  
Germany

T 09323/31-0 - F 09323/31-277

[zentrale@knauf.de](mailto:zentrale@knauf.de) - [www.knauf.de](http://www.knauf.de)

E-Mail-Adresse der für das SDB zuständigen sachkundigen Person :

[sds-info@knauf.com](mailto:sds-info@knauf.com)

##### Technische Auskunft

Technischer Auskunft-Service Putz und Fassade  
T +49 (0)9001/31-2000 (see section 16)

[knauf-direkt@knauf.de](mailto:knauf-direkt@knauf.de)

#### 1.4. Notrufnummer

Keine weiteren Informationen verfügbar

### ABSCHNITT 2: Mögliche Gefahren

#### 2.1. Einstufung des Stoffs oder Gemischs

##### Einstufung gemäß Verordnung (EG) Nr. 1272/2008 [CLP]

Nicht eingestuft

##### Schädliche physikalisch-chemische, gesundheitliche und Umwelt-Wirkungen

Keine weiteren Informationen verfügbar

#### 2.2. Kennzeichnungselemente

##### Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008 [CLP]

EUH Sätze : EUH210 - Sicherheitsdatenblatt auf Anfrage erhältlich.  
EUH211 - Achtung! Beim Sprühen können gefährliche lungengängige Tröpfchen entstehen.  
Aerosol oder Nebel nicht einatmen.  
Zusätzliche Sätze : GRENZWERTE FÜR DEN VOC-HÖCHSTGEHALT VON FARBEN UND LACKEN.  
Produktunterkategorie: c (Typ: Wb): 40 g/l.  
VOC-Gehalt: < 0,1 % (< 1 g/L).

#### 2.3. Sonstige Gefahren

Enthält keine PBT/vPvB-Stoffe  $\geq 0,1\%$ , bewertet gemäß REACH Anhang XIII

Das Gemisch enthält keine Stoffe, die aufgrund endokrin wirkender Eigenschaften gemäß REACH Artikel 59 Absatz 1 in der Liste enthalten sind, oder es wurde gemäß den Kriterien der Delegierten-Verordnung (EU) 2017/2100 oder der Verordnung (EU) 2018/605 der Kommission festgestellt, dass es keine Stoffe mit endokrin wirkenden Eigenschaften in einer Konzentration von mindestens 0,1 % aufweist.

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

### ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

#### 3.1. Stoffe

Nicht anwendbar

#### 3.2. Gemische

Dieses Gemisch enthält keine anzeigepflichtigen Substanzen gemäß den Kriterien aus 3.2 des Anhangs II der REACH-Verordnung

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

#### 4.1. Beschreibung der Erste-Hilfe-Maßnahmen

Erste-Hilfe-Maßnahmen nach Einatmen	: Die Person an die frische Luft bringen und für ungehinderte Atmung sorgen.
Erste-Hilfe-Maßnahmen nach Hautkontakt	: Haut mit viel Wasser abwaschen.
Erste-Hilfe-Maßnahmen nach Augenkontakt	: Augen vorsorglich mit Wasser ausspülen. Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
Erste-Hilfe-Maßnahmen nach Verschlucken	: Bei Unwohlsein Giftinformationszentrum oder Arzt anrufen. Den Mund mit Wasser ausspülen.

#### 4.2. Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Keine weiteren Informationen verfügbar

#### 4.3. Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Symptomatisch behandeln.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

#### 5.1. Löschmittel

Geeignete Löschmittel : Wassersprühstrahl. Trockenlöschpulver. Schaum.

#### 5.2. Besondere vom Stoff oder Gemisch ausgehende Gefahren

Gefährliche Zerfallsprodukte im Brandfall : Mögliche Freisetzung giftiger Rauchgase.

#### 5.3. Hinweise für die Brandbekämpfung

Schutz bei der Brandbekämpfung : Nicht versuchen ohne geeignete Schutzausrüstung tätig zu werden. Umgebungsluft-unabhängiges Atemschutzgerät. Vollständige Schutzkleidung.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

#### 6.1. Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

##### 6.1.1. Nicht für Notfälle geschultes Personal

Notfallmaßnahmen : Verunreinigten Bereich lüften.

##### 6.1.2. Einsatzkräfte

Schutzausrüstung : Nicht versuchen ohne geeignete Schutzausrüstung tätig zu werden. Weitere Angaben: siehe Abschnitt 8 "Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstung".

#### 6.2. Umweltschutzmaßnahmen

Freisetzung in die Umwelt vermeiden.

#### 6.3. Methoden und Material für Rückhaltung und Reinigung

Reinigungsverfahren : Verschüttete Flüssigkeit mit Absorptionsmittel aufnehmen.  
Sonstige Angaben : Stoffe oder Restmengen in fester Form einer zugelassenen Anlage zuführen.

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

### 6.4. Verweis auf andere Abschnitte

Weitere Angaben siehe Abschnitt 13.

## ABSCHNITT 7: Handhabung und Lagerung

### 7.1. Schutzmaßnahmen zur sicheren Handhabung

- Schutzmaßnahmen zur sicheren Handhabung : Für eine gute Belüftung des Arbeitsplatzes sorgen. Persönliche Schutzausrüstung tragen. Beim Versprühen Einatmen des Aerosols vermeiden. Bereich gründlich lüften. Unbefugten Personen den Zutritt verwehren.
- Hygienemaßnahmen : Bei Gebrauch nicht essen, trinken oder rauchen. Nach Handhabung des Produkts immer die Hände waschen.

### 7.2. Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten

- Lagerbedingungen : An einem gut belüfteten Ort aufbewahren. Kühl halten.
- Wärme- oder Zündquellen : PRODUKT FERNHALTEN VON: Wärmequellen. Zündquellen.

### 7.3. Spezifische Endanwendungen

Keine weiteren Informationen verfügbar

## ABSCHNITT 8: Begrenzung und Überwachung der Exposition/persönliche Schutzausrüstungen

### 8.1. Zu überwachende Parameter

#### 8.1.1 Nationale Grenzwerte für die berufsbedingte Exposition und biologische Grenzwerte

Keine weiteren Informationen verfügbar

#### 8.1.2. Empfohlene Überwachungsverfahren

Keine weiteren Informationen verfügbar

#### 8.1.3. Freigesetzte Luftverunreinigungen

Keine weiteren Informationen verfügbar

#### 8.1.4. DNEL- und PNEC-Werte

Keine weiteren Informationen verfügbar

#### 8.1.5. Control banding

Keine weiteren Informationen verfügbar

### 8.2. Begrenzung und Überwachung der Exposition

#### 8.2.1. Geeignete technische Steuerungseinrichtungen

##### Geeignete technische Steuerungseinrichtungen:

Für eine gute Belüftung des Arbeitsplatzes sorgen.

#### 8.2.2. Persönliche Schutzausrüstung

##### Persönliche Schutzausrüstung - Symbol(e):



##### 8.2.2.1. Augen- und Gesichtsschutz

Augenschutz			
Typ	Einsatzbereich	Kennzeichnungen	Norm
Schutzbrille mit Seitenschutz	Spritzschutzbrille tragen, wenn Augenkontakt durch Verspritzen möglich ist		

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

Augenschutz			
Typ	Einsatzbereich	Kennzeichnungen	Norm
Bei Staubentwicklung: dichtschießende Schutzbrille			

### 8.2.2.2. Hautschutz

#### Haut- und Körperschutz:

Bei der Arbeit geeignete Schutzkleidung tragen

#### Handschutz:

Schutzhandschuhe

Handschutz					
Typ	Material	Permeation	Dicke (mm)	Durchdringung	Norm
Undurchlässige Schutzhandschuhe	Nitrilkautschuk (NBR)				

### 8.2.2.3. Atemschutz

#### Atemschutz:

Bei unzureichender Belüftung geeignete Atemschutzausrüstung tragen. Bei Einwirkungen von Dämpfen, Stäuben und Aerosolen ist Atemschutz zu verwenden. Beim Versprühen geeignete Atemschutzausrüstung tragen

Atemschutz			
Gerät	Filtertyp	Bedingung	Norm
Bei Staubbildung: Staubmaske	Typ P2	Schleifen, Fräsen und ähnliche Arbeiten	

### 8.2.2.4. Thermische Gefahren

Keine weiteren Informationen verfügbar

### 8.2.3. Begrenzung und Überwachung der Umweltexposition

#### Begrenzung und Überwachung der Umweltexposition:

Freisetzung in die Umwelt vermeiden.

#### Begrenzung und Überwachung der Verbrauchereexposition:

Bei Tätigkeiten mit starker Dispersion, die zu einem erheblichen Aerosol-oder Dampf-Ausstoß führen könnten, z.B. durch Sprühen, sind sonstige Schutzmaßnahmen wie die Abtrennung der Tätigkeit, die Personalminimierung, das Tragen von Atemschutzgeräten, flüssigkeitsabweisenden Schutzanzügen und eines Gesichtsschutzes vorzusehen.

## ABSCHNITT 9: Physikalische und chemische Eigenschaften

### 9.1. Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

Aggregatzustand	: Flüssig
Farbe	: Verschiedene Farben.
Geruch	: Schwacher Geruch. Charakteristisch.
Geruchsschwelle	: Nicht verfügbar
Schmelzpunkt	: 0 °C
Gefrierpunkt	: Nicht verfügbar
Siedepunkt	: 100 °C
Entzündbarkeit	: Nicht verfügbar
Explosive Eigenschaften	: Das Produkt ist nicht explosionsgefährlich.
Explosionsgrenzen	: Nicht verfügbar
Untere Explosionsgrenze	: Nicht verfügbar
Obere Explosionsgrenze	: Nicht verfügbar
Flammpunkt	: Nicht verfügbar
Zündtemperatur	: Nicht selbstentzündlich
Zersetzungstemperatur	: Nicht verfügbar

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

pH-Wert	: 11 (20 °C)
Viskosität, kinematisch	: Nicht verfügbar
Löslichkeit	: Wasser: vollkommen mischbar
Verteilungskoeffizient n-Oktanol/Wasser (Log Kow)	: Nicht verfügbar
Dampfdruck	: 23 hPa
Dampfdruck bei 50 °C	: Nicht verfügbar
Dichte	: 1,46 g/cm <sup>3</sup>
Relative Dichte	: Nicht verfügbar
Relative Dampfdichte bei 20 °C	: Nicht verfügbar
Partikeleigenschaften	: Nicht anwendbar

### 9.2. Sonstige Angaben

#### 9.2.1. Angaben über physikalische Gefahrenklassen

Keine weiteren Informationen verfügbar

#### 9.2.2. Sonstige sicherheitstechnische Kenngrößen

VOC-Gehalt : < 0,1 % (< 1 g/L)

## ABSCHNITT 10: Stabilität und Reaktivität

### 10.1. Reaktivität

Das Produkt ist nicht reaktiv unter normalen Gebrauchs-, Lagerungs- und Transportbedingungen.

### 10.2. Chemische Stabilität

Stabil unter normalen Bedingungen.

### 10.3. Möglichkeit gefährlicher Reaktionen

Unter normalen Verwendungsbedingungen sind keine gefährlichen Reaktionen bekannt.

### 10.4. Zu vermeidende Bedingungen

Keine unter den empfohlenen Lagerungs- und Handhabungsbedingungen (siehe Abschnitt 7).

### 10.5. Unverträgliche Materialien

Keine weiteren Informationen verfügbar

### 10.6. Gefährliche Zersetzungsprodukte

Unter normalen Lager- und Anwendungsbedingungen sollten keine gefährlichen Zersetzungsprodukte gebildet werden.

## ABSCHNITT 11: Toxikologische Angaben

### 11.1. Angaben zu den Gefahrenklassen im Sinne der Verordnung (EG) Nr. 1272/2008

Akute Toxizität (Oral)	: Nicht eingestuft
Akute Toxizität (Dermal)	: Nicht eingestuft
Akute Toxizität (inhalativ)	: Nicht eingestuft
Ätz-/Reizwirkung auf die Haut	: Nicht eingestuft pH-Wert: 11 (20 °C)
Schwere Augenschädigung/-reizung	: Nicht eingestuft pH-Wert: 11 (20 °C)
Sensibilisierung der Atemwege/Haut	: Nicht eingestuft
Keimzell-Mutagenität	: Nicht eingestuft
Karzinogenität	: Nicht eingestuft
Reproduktionstoxizität	: Nicht eingestuft
Spezifische Zielorgan-Toxizität bei einmaliger Exposition	: Nicht eingestuft
Spezifische Zielorgan-Toxizität bei wiederholter Exposition	: Nicht eingestuft

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

Aspirationsgefahr : Nicht eingestuft

### 11.2. Angaben über sonstige Gefahren

Keine weiteren Informationen verfügbar

## ABSCHNITT 12: Umweltbezogene Angaben

### 12.1. Toxizität

Gewässergefährdend, kurzfristige (akut) : Nicht eingestuft  
Gewässergefährdend, langfristige (chronisch) : Nicht eingestuft

### 12.2. Persistenz und Abbaubarkeit

Keine weiteren Informationen verfügbar

### 12.3. Bioakkumulationspotenzial

Keine weiteren Informationen verfügbar

### 12.4. Mobilität im Boden

Keine weiteren Informationen verfügbar

### 12.5. Ergebnisse der PBT- und vPvB-Beurteilung

Keine weiteren Informationen verfügbar

### 12.6. Endokrinschädliche Eigenschaften

Keine weiteren Informationen verfügbar

### 12.7. Andere schädliche Wirkungen

Keine weiteren Informationen verfügbar

## ABSCHNITT 13: Hinweise zur Entsorgung

### 13.1. Verfahren der Abfallbehandlung

Verfahren der Abfallbehandlung : Inhalt/Behälter gemäß den Sortieranweisungen des zugelassenen Einsammlers entsorgen.  
Ausgehärtete Produktrückstände möglichst staubfrei handhaben.  
EAK-Code : 08 01 12 - Farb- und Lackabfälle mit Ausnahme derjenigen, die unter 08 01 11 fallen  
17 09 04 - gemischte Bau- und Abbruchabfälle mit Ausnahme derjenigen, die unter 17 09 01, 17 09 02 und 17 09 03 fallen

## ABSCHNITT 14: Angaben zum Transport

Gemäß ADR / IMDG / IATA / ADN / RID

### 14.1. UN-Nummer oder ID-Nummer

UN-Nr. (ADR) : Nicht anwendbar  
UN-Nr. (IMDG) : Nicht anwendbar  
UN-Nr. (IATA) : Nicht anwendbar  
UN-Nr. (ADN) : Nicht anwendbar  
UN-Nr. (RID) : Nicht anwendbar

### 14.2. Ordnungsgemäße UN-Versandbezeichnung

Offizielle Benennung für die Beförderung (ADR) : Nicht anwendbar  
Offizielle Benennung für die Beförderung (IMDG) : Nicht anwendbar  
Offizielle Benennung für die Beförderung (IATA) : Nicht anwendbar  
Offizielle Benennung für die Beförderung (ADN) : Nicht anwendbar  
Offizielle Benennung für die Beförderung (RID) : Nicht anwendbar

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

### 14.3. Transportgefahrenklassen

#### ADR

Transportgefahrenklassen (ADR) : Nicht anwendbar

#### IMDG

Transportgefahrenklassen (IMDG) : Nicht anwendbar

#### IATA

Transportgefahrenklassen (IATA) : Nicht anwendbar

#### ADN

Transportgefahrenklassen (ADN) : Nicht anwendbar

#### RID

Transportgefahrenklassen (RID) : Nicht anwendbar

### 14.4. Verpackungsgruppe

Verpackungsgruppe (ADR) : Nicht anwendbar

Verpackungsgruppe (IMDG) : Nicht anwendbar

Verpackungsgruppe (IATA) : Nicht anwendbar

Verpackungsgruppe (ADN) : Nicht anwendbar

Verpackungsgruppe (RID) : Nicht anwendbar

### 14.5. Umweltgefahren

Umweltgefährlich : Nein

Meeresschadstoff : Nein

Sonstige Angaben : Keine zusätzlichen Informationen verfügbar

### 14.6. Besondere Vorsichtsmaßnahmen für den Verwender

#### Landtransport

Nicht anwendbar

#### Seeschifftransport

Nicht anwendbar

#### Lufttransport

Nicht anwendbar

#### Binnenschifftransport

Nicht anwendbar

#### Bahntransport

Nicht anwendbar

### 14.7. Massengutbeförderung auf dem Seeweg gemäß IMO-Instrumenten

Nicht anwendbar

## ABSCHNITT 15: Rechtsvorschriften

### 15.1. Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch

#### 15.1.1. EU-Verordnungen

Enthält keinen Stoff, der den Beschränkungen von Anhang XVII der REACH-Verordnung unterliegt

Enthält keinen REACH-Kandidatenstoff

Enthält keinen in REACH-Anhang XIV gelisteten Stoff

# MineralAktiv Fassadenfarbe

## Sicherheitsdatenblatt

gemäß REACH-Verordnung (EG) 1907/2006 einschließlich Änderungsverordnung (EU) 2020/878

Enthält keine Stoffe, die der Verordnung (EU) 649/2012 des Europäischen Parlaments und des Rates vom 4. Juli 2012 über die Aus- und Einfuhr gefährlicher Chemikalien unterliegen.

Enthält keine Stoffe, die der Verordnung (EU) Nr. 2019/1021 des europäischen Parlaments und des Rates vom 20. Juni 2019 über persistente organische Schadstoffe unterliegen

Enthält keine Stoffe, die der VERORDNUNG (EG) Nr. 1005/2009 DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 16. September 2009 über Stoffe, die zum Abbau der Ozonschicht führen unterliegen.

Enthält keinen Stoff, der der Verordnung (EU) 2019/1148 des Europäischen Parlaments und des Rates vom 20. Juni 2019 über das Inverkehrbringen und die Verwendung von Vorläuferstoffen für Sprengstoffe unterliegt.

VOC-Gehalt : < 0,1 % (< 1 g/L)

Enthält keine Stoffe, die auf der Liste der Drogenausgangsstoffe aufgeführt sind (EG-Verordnung EG 273/2004 zu Drogenausgangsstoffen)

### 15.1.2. Nationale Vorschriften

#### Deutschland

Beschäftigungsbeschränkungen : Beschränkungen gemäß Mutterschutzgesetz (MuSchG) beachten  
Beschränkungen gemäß Jugendarbeitsschutzgesetz (JArbSchG) beachten

Wassergefährdungsklasse (WGK) : WGK 1, Schwach wassergefährdend (Einstufung nach AwSV, Anlage 1)

Störfall-Verordnung (12. BImSchV) : Unterliegt nicht der Störfall-Verordnung (12. BImSchV)

Lagerklasse (LGK, TRGS 510) : LGK 12 - Nicht brennbare Flüssigkeiten

GISCODE : BSW10 - Beschichtungsstoffe, wasserbasiert, konservierungsmittelarm

### 15.2. Stoffsicherheitsbeurteilung

Keine weiteren Informationen verfügbar

## ABSCHNITT 16: Sonstige Angaben

Änderungshinweise			
Abschnitt	Geändertes Element	Modifikation	Anmerkungen
	Enthält	Hinzugefügt	
3	Zusammensetzung/Angaben zu Bestandteilen	Geändert	

### Vollständiger Wortlaut der H- und EUH-Sätze:

EUH210	Sicherheitsdatenblatt auf Anfrage erhältlich.
EUH211	Achtung! Beim Sprühen können gefährliche lungengängige Tröpfchen entstehen. Aerosol oder Nebel nicht einatmen.

Knauf SDB EU (REACH Anhang II)

Diese Informationen basieren auf unserem aktuellen Wissen und sollen das Produkt nur im Hinblick auf Gesundheit, Sicherheit und Umweltbedingungen beschreiben. Sie dürfen also nicht als Garantie für spezifische Eigenschaften des Produktes ausgelegt werden.

# KNAUF



valid until  
07.06.2027

**EPD-DBC-20220147-IBF1-EN**

## ***Facade paint***

*Declared Products*

- › *Faserfarbe*
- › *MineralAktiv Fassadenfarbe, white*
- › *Siliconharz-EG-Farbe, white*

[www.knauf.com](http://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-20220147-IBF1-EN
Issue date	08.06.2022
Valid to	07.06.2027

## Dispersion-based products, group 2

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](http://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.

Dispersion-based products, group 2

**Programme holder**

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

**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

**Declaration number**

EPD-DBC-20220147-IBF1-EN

**Declared product / declared unit**

1 kg / 1 kg; density 1,000 - 1,500 kg/m<sup>3</sup>

**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)

**Scope:**

This verified EPD entitles the holder to bear the symbol of the Institut Bauen und Umwelt e.V. It exclusively applies for products produced in Europe and for 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 the respective websites.

**Issue date**

08.06.2022

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*.

**Valid to**

07.06.2027

**Verification**

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

internally  externally

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

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

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  $\leq 1\%$  (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/cm<sup>3</sup>, 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 CO<sub>2</sub> (*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 (m<sup>3</sup>) 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/m<sup>2</sup> 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 2; applied into the building with a density of 1,000 - 1,500 kg/m<sup>3</sup> 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 <sup>3</sup>

### 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 CO<sub>2</sub> (0.016 kg C \* 3.67 = 0.059 kg CO<sub>2</sub>-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)

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 2

Core Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
GWP-total	[kg CO <sub>2</sub> -Eq.]	2.00E+0	5.11E-2	1.80E-1	2.79E-4	1.24E-2	9.45E-1	-3.98E-1
GWP-fossil	[kg CO <sub>2</sub> -Eq.]	2.05E+0	5.06E-2	9.49E-2	2.66E-4	1.18E-2	4.29E-1	-3.97E-1
GWP-biogenic	[kg CO <sub>2</sub> -Eq.]	-3.96E-2	1.48E-4	8.54E-2	1.24E-5	5.42E-4	5.15E-1	-8.96E-4
GWP-luluc	[kg CO <sub>2</sub> -Eq.]	8.17E-4	4.10E-4	9.68E-6	6.39E-9	2.79E-7	3.50E-5	-2.51E-4
ODP	[kg CFC11-Eq.]	3.53E-14	6.08E-18	3.70E-16	2.84E-20	1.24E-18	3.02E-16	-3.72E-15
AP	[mol H <sup>+</sup> -Eq.]	8.99E-3	1.52E-4	1.14E-4	3.60E-6	3.73E-5	5.25E-4	-5.26E-4
EP-freshwater	[kg P-Eq.]	2.85E-5	1.54E-7	2.88E-7	5.75E-11	2.51E-9	1.04E-7	-4.62E-7
EP-marine	[kg N-Eq.]	1.70E-3	6.75E-5	2.42E-5	1.63E-6	1.72E-5	2.01E-4	-1.39E-4
EP-terrestrial	[mol N-Eq.]	1.95E-2	7.56E-4	3.08E-4	1.79E-5	1.89E-4	2.52E-3	-1.49E-3
POCP	[kg NMVOC-Eq.]	6.25E-3	1.33E-4	8.24E-5	4.91E-6	3.39E-5	5.22E-4	-4.02E-4
ADPE	[kg Sb-Eq.]	7.32E-7	3.63E-9	7.60E-9	8.06E-12	3.52E-10	4.62E-9	-6.06E-8
ADPF	[MJ]	4.44E+1	6.73E-1	4.75E-1	3.81E-3	1.66E-1	5.52E-1	-6.70E+0
WDP	[m <sup>3</sup> world-Eq deprived]	6.36E-2	4.52E-4	1.70E-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 2

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
PERE	[MJ]	6.19E+0	3.79E-2	6.58E-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]	6.77E+0	3.79E-2	7.35E-2	1.20E-5	5.25E-4	9.36E-2	-1.32E+0
PENRE	[MJ]	2.93E+1	6.74E-1	1.43E+0	3.81E-3	1.67E-1	1.48E+1	-6.70E+0
PENRM	[MJ]	1.52E+1	0.00E+0	-9.53E-1	0.00E+0	0.00E+0	-1.42E+1	0.00E+0
PENRT	[MJ]	4.44E+1	6.74E-1	4.76E-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 <sup>3</sup> ]	1.54E-2	4.38E-5	5.38E-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 used as raw materials; 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 2

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
HWD	[kg]	1.51E-8	3.14E-8	1.87E-10	3.70E-13	1.62E-11	1.77E-9	-2.66E-9
NHWD	[kg]	2.75E-1	1.03E-4	4.97E-3	3.90E-7	1.70E-5	1.36E-1	-2.94E-3
RWD	[kg]	1.09E-3	8.34E-7	1.27E-5	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 2

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 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.

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, CO<sub>2</sub> is the most important contributor to Global Warming Potential (GWP). For the Acidification Potential (AP), NO<sub>x</sub> and SO<sub>2</sub> 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 to 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/m<sup>3</sup>
- TSVOC: 100 µg/m<sup>3</sup>

- Each carcinogen: 1 µg/m<sup>3</sup>
- Formaldehyde: 100 µg/m<sup>3</sup>
- 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 <sup>3</sup>	Sum of carcinogens. C1A,CA2 µg/m <sup>3</sup>	Formaldehyde µg/m <sup>3</sup>	Acetaldehyde µg/m <sup>3</sup>	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 <sup>PLUS</sup>	750	10	50	50	50 ppb

	TVOC µg/m <sup>3</sup>	TSVOC µg/m <sup>3</sup>	Each carcinogen C1A,CA2 µg/m <sup>3</sup>	Formalde- hyde µg/m <sup>3</sup>	Acetalde- hyde µg/m <sup>3</sup>	LCI	R value	Specials	Sum of non-LCI & non- identified µg/m <sup>3</sup>
Belgian regulation	1000	100	1	100	200	Belgian list	1	Toluene 300 µg/m <sup>3</sup>	-/-
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 <sup>PLUS</sup>	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 <sup>2</sup> h	-/-	5 µg/m <sup>2</sup> h	50 µg/m <sup>2</sup> 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 geogode gebruiken

#### **Blue Angel**

Environmental label organised by the federal government of Germany [www.blauer-engel.de](http://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](http://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](http://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/agbb.htm](http://www.umweltbundesamt.de/produkte/bauprodukte/agbb.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](http://www.ibu-epd.com)

#### **Indoor Air Comfort**

Product certification by Eurofins, Hamburg, Germany [www.eurofins.com](http://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](mailto:info@ibu-epd.com)  
Web [www.ibu-epd.com](http://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](mailto:info@ibu-epd.com)  
Web [www.ibu-epd.com](http://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](mailto:info@sphera.com)  
Web [www.sphera.com](http://www.sphera.com)

**Owner of the Declaration**

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

Tel +32289720-39  
Fax +32289720-37  
Mail [info@efcc.be](mailto:info@efcc.be)  
Web [www.efcc.eu](http://www.efcc.eu)



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](mailto:info@deutsche-bauchemie.de)  
Web [www.deutsche-bauchemie.de](http://www.deutsche-bauchemie.de)



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](mailto:info@feica.eu)  
Web [www.feica.eu](http://www.feica.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](mailto:info@klebstoffe.com)  
Web [www.klebstoffe.com](http://www.klebstoffe.com)

# KNAUF



valid until  
07.06.2027

**EPD-DBC-20220148-IBF1-EN**

## **Facade paint**

*Declared Products*

- › *Autol*
- › *Autol TSR*
- › *Fassadol*
- › *Fassadol TSR*
- › *MineralAktiv Fassadenfarbe, toned*

[www.knauf.com](http://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-20220148-IBF1-EN
Issue date	08.06.2022
Valid to	07.06.2027

## Dispersion-based products, group 3

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](http://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-20220148-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 3

### 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/m<sup>3</sup>

### Scope:

This verified EPD entitles the holder to bear the symbol of the Institut Bauen und Umwelt e.V. It exclusively applies for products produced in Europe and for 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 the 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  $\leq 10\%$  (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/cm<sup>3</sup>, 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 CO<sub>2</sub> (*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 (m<sup>3</sup>) 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*: <10 %

### (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/m<sup>2</sup> 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 fulfil 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 3; applied into the building with a density of 1,000 - 1,500 kg/m<sup>3</sup> 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 <sup>3</sup>

### 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.

This stage considers VOC emissions during the installation phase. The declared product does not contain substances in the formulation that directly emit as VOC, but VOCs are generated by a chemical reaction that occurs during this phase. 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 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 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 CO<sub>2</sub> (0.016 kg C \* 3.67 = 0.059 kg CO<sub>2</sub>-eq.) of the packaging bound in module A1-A3 is mathematically booked out.

#### Transport to the building site (A4)

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

#### Installation into the building (A5)

Name	Value	Unit
Material loss	0.01	kg
Other resources for packaging material	0.067	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	0.836	kg
Incineration	0.836	kg

## 5. LCA: Results

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; ND = 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	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 3

Core Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
GWP-total	[kg CO <sub>2</sub> -Eq.]	2.60E+0	5.11E-2	1.86E-1	2.33E-4	1.04E-2	7.90E-1	-3.43E-1
GWP-fossil	[kg CO <sub>2</sub> -Eq.]	2.64E+0	5.06E-2	1.01E-1	2.23E-4	9.90E-3	3.59E-1	-3.42E-1
GWP-biogenic	[kg CO <sub>2</sub> -Eq.]	-4.72E-2	1.48E-4	8.53E-2	1.03E-5	4.54E-4	4.31E-1	-7.74E-4
GWP-luluc	[kg CO <sub>2</sub> -Eq.]	5.01E-3	4.10E-4	5.16E-5	5.35E-9	2.34E-7	2.93E-5	-2.17E-4
ODP	[kg CFC11-Eq.]	7.23E-10	6.08E-18	7.23E-12	2.37E-20	1.04E-18	2.53E-16	-3.22E-15
AP	[mol H <sup>+</sup> -Eq.]	1.33E-2	1.52E-4	1.57E-4	3.01E-6	3.12E-5	4.39E-4	-4.55E-4
EP-freshwater	[kg P-Eq.]	7.54E-5	1.54E-7	7.57E-7	4.81E-11	2.10E-9	8.66E-8	-4.00E-7
EP-marine	[kg N-Eq.]	2.39E-3	6.75E-5	3.12E-5	1.37E-6	1.43E-5	1.68E-4	-1.20E-4
EP-terrestrial	[mol N-Eq.]	2.35E-2	7.56E-4	3.48E-4	1.50E-5	1.58E-4	2.11E-3	-1.29E-3
POCP	[kg NMVOC-Eq.]	7.66E-3	1.33E-4	9.65E-5	4.11E-6	2.83E-5	4.36E-4	-3.47E-4
ADPE	[kg Sb-Eq.]	1.65E-6	3.63E-9	1.68E-8	6.74E-12	2.94E-10	3.86E-9	-5.24E-8
ADPF	[MJ]	4.94E+1	6.73E-1	5.26E-1	3.19E-3	1.39E-1	4.62E-1	-5.79E+0
WDP	[m <sup>3</sup> world-Eq deprived]	4.24E-2	4.52E-4	1.68E-2	4.40E-7	1.92E-5	1.31E-1	-3.20E-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 3

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
PERE	[MJ]	3.95E+0	3.79E-2	6.36E-1	1.00E-5	4.39E-4	7.83E-2	-1.15E+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]	4.54E+0	3.79E-2	5.12E-2	1.00E-5	4.39E-4	7.83E-2	-1.15E+0
PENRE	[MJ]	4.21E+1	6.74E-1	2.53E+0	3.19E-3	1.39E-1	5.81E+0	-5.79E+0
PENRM	[MJ]	7.35E+0	0.00E+0	-2.00E+0	0.00E+0	0.00E+0	-5.35E+0	0.00E+0
PENRT	[MJ]	4.95E+1	6.74E-1	5.26E-1	3.19E-3	1.39E-1	4.62E-1	-5.79E+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 <sup>3</sup> ]	2.02E-2	4.38E-5	5.86E-4	1.80E-8	7.87E-7	3.10E-3	-1.33E-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 used as raw materials; 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 3

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	D
HWD	[kg]	1.55E-5	3.14E-8	1.55E-7	3.09E-13	1.35E-11	1.48E-9	-2.30E-9
NHWD	[kg]	3.84E-1	1.03E-4	6.06E-3	3.26E-7	1.42E-5	1.14E-1	-2.54E-3
RWD	[kg]	1.05E-3	8.34E-7	1.23E-5	3.42E-9	1.49E-7	2.10E-5	-3.91E-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 3

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 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.

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, CO<sub>2</sub> is the most important contributor to Global Warming Potential (GWP). For the Acidification Potential (AP), NO<sub>x</sub> and SO<sub>2</sub> 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 to 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/m<sup>3</sup>
- TSVOC: 100 µg/m<sup>3</sup>

- Each carcinogen: 1 µg/m<sup>3</sup>
- Formaldehyde: 100 µg/m<sup>3</sup>
- 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 <sup>3</sup>	Sum of carcinogens. C1A,CA2 µg/m <sup>3</sup>	Formaldehyde µg/m <sup>3</sup>	Acetaldehyde µg/m <sup>3</sup>	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 <sup>PLUS</sup>	750	10	50	50	50 ppb

	TVOC µg/m <sup>3</sup>	TSVOC µg/m <sup>3</sup>	Each carcinogen C1A,CA2 µg/m <sup>3</sup>	Formalde- hyde µg/m <sup>3</sup>	Acetalde- hyde µg/m <sup>3</sup>	LCI	R value	Specials	Sum of non-LCI & non- identified µg/m <sup>3</sup>
Belgian regulation	1000	100	1	100	200	Belgian list	1	Toluene 300 µg/m <sup>3</sup>	-/-
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 <sup>PLUS</sup>	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 <sup>2</sup> h	-/-	5 µg/m <sup>2</sup> h	50 µg/m <sup>2</sup> 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 geogode gebruiken

#### **Blue Angel**

Environmental label organised by the federal government of Germany [www.blauer-engel.de](http://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](http://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](http://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/agbb.htm](http://www.umweltbundesamt.de/produkte/bauprodukte/agbb.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](http://www.ibu-epd.com)

#### **Indoor Air Comfort**

Product certification by Eurofins, Hamburg, Germany [www.eurofins.com](http://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](mailto:info@ibu-epd.com)  
Web [www.ibu-epd.com](http://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](mailto:info@ibu-epd.com)  
Web [www.ibu-epd.com](http://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](mailto:info@sphera.com)  
Web [www.sphera.com](http://www.sphera.com)

**Owner of the Declaration**

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

Tel +32289720-39  
Fax +32289720-37  
Mail [info@efcc.be](mailto:info@efcc.be)  
Web [www.efcc.eu](http://www.efcc.eu)



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](mailto:info@deutsche-bauchemie.de)  
Web [www.deutsche-bauchemie.de](http://www.deutsche-bauchemie.de)



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](mailto:info@klebstoffe.com)  
Web [www.klebstoffe.com](http://www.klebstoffe.com)



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](mailto:info@feica.eu)  
Web [www.feica.eu](http://www.feica.eu)