ENVIRONMENTAL PRODUCT DECLARATION

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

Owner of the Declaration	VdL - Verband der deutschen Lack- und Druckfarbenindustrie e.V.
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-VDL-20260186-CBP1-EN
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Valid to	10/08/2031

Water-based stoving coatings for industrial applications

Verband der deutschen Lack- und Druckfarbenindustrie e.V. (VdL)

Institut Bauen und Umwelt e.V.

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General Information

Verband der deutschen Lack- und Druckfarbenindustrie e.V. (VdL)

Programme holder

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

Declaration number

EPD-VDL-20260186-CBP1-EN

This declaration is based on the product category rules:

Coatings with organic binders, 01/08/2021
(PCR checked and approved by the SVR)

Issue date

10/11/2026

Valid to

10/08/2031

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

Dr. Martina Bender
(Managing Director Institut Bauen und Umwelt e.V.)

Water-based stoving coatings for industrial applications

Owner of the declaration

VdL - Verband der deutschen Lack- und Druckfarbenindustrie e.V.
Mainzer Landstraße 55
60329 Frankfurt a. M.
Germany

Declared product / declared unit

1 kg coating material as supplied

Scope:

This is an association EPD of the Verband der deutschen Lack- und Druckfarbenindustrie e.V. (German Paint and Printing Ink Association, VdL) for a defined group of water-based stoving coatings. For the Life Cycle Assessment calculation, a marketable, actually produced worst-case formulation was used, which has the highest recorded environmental impacts.
The worst-case declaration is based on the product data provided by the members of the VdL sector group for industrial coatings. It applies exclusively to the products represented by this formulation from European production sites and is valid for a period of five years from the date of issue.
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 evidence.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard is abbreviated 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
☐ internal ☒ external

Matthias Schulz,
(Independent verifier)

Product

Product description/Product definition

Water-based stoving coatings consist of organic binders based on synthetic and/or natural resins, mineral fillers, pigments, and water.
Stoving coatings are versatile coating systems that are widely used in industry. These coatings benefit from a combination of thermal cross-linking (> 110 °C) and chemical curing, which gives them high mechanical stability and resistance to external influences. The reactive resin components (alkyd/melamine, polyester or acrylate resins) and, where applicable, cross-linking agents (blocked isocyanates) provide a flexible basis for a range of requirements, whilst additives and fillers can be used to optimise the coatings for specific applications. Although water-based stoving coatings are not entirely solvent-free, a significant proportion of the volatile organic compounds (VOCs) is replaced by water.
For the LCA calculation, a real worst-case formulation was selected from a defined range of actually produced and commercially available water-based stoving coatings. This formulation has the highest environmental impact within the product spectrum analysed and serves as the basis for this declaration.
Product for which no legal provisions for harmonisation of the EU exist: For the use and application of the product, the respective national provisions at the place of use apply, in Germany for example the *building regulations of the federal states* and the corresponding national specifications.

Application

Water-based stoving coatings are used on heat-resistant substrates, such as metal and glass, as single-coat paints, primers and topcoats for coating large domestic appliances (e.g. white goods), building elements (e.g. façade elements, roof coverings) and components (e.g. luminaire housings, hinges, appliance covers), as well as in coil-coating applications for decorative, functional or protective purposes. They are applied to substrates by spraying, dip-coating, or squeegee application.
The *31st BImSchV* applies to the application of industrial coatings in coating plants.

Technical data

The requirements of the *Decopaint Directive* and the nationally implementing *ChemVOCFarbV* Ordinance apply:

- for topcoats and primers from Decopaint product group d,
- for varnishes and stains in Decopaint product group e,
- for special coatings in Decopaint group i

whose viscosity is adjusted with the aid of water,
and for water-based stoving coatings that do not fall under the scope of the *Decopaint Directive*.

The following technical data is relevant for the declared product.

Name	Value	Unit
Density	1000 - 1400	kg/m^3
Solids content	20 - 55	%
pH value	6 - 9	
Viscosity (coatings)	100 - 5000	m^{2}s^{-1}
Curing time	1 - 30	min
Curing temperature	130 - 240	°C

Further technical data according to the *PCR: Coatings with organic binders* are not relevant for the product.

Product for which no legal provisions for harmonisation of the EU exist: Performance data of the product with respect to its characteristics in accordance with the relevant technical provision (no CE-marking).

Base materials/auxiliary materials

Water-based stoving coatings generally consist of at least one organic binder (natural or synthetic polymers) that is dissolved or dispersed in water. The polymeric binders are usually based on acrylate, polyester, and/or alkyd/melamine resins. Other components include mineral fillers (e.g. chalk) and organic or inorganic pigments (light-fast, temperature-resistant), as well as water in varying proportions. To fine-tune the product properties, auxiliaries such as crosslinking agents (e.g. blocked isocyanates), film-forming aids, thickeners, defoamers, wetting and dispersing agents and, where applicable, preservatives (biocides) are used.

Name	Value	Unit
Binders (dispersion / emulsion)	9 - 35	% by mass
Organic solvents	0 - 15	% by mass
Water	14 - 60	% by mass
Pigments	0 - 30	% by mass
Fillers / matting agents	0 - 40	% by mass
Hardener	0 - 15	% by mass
Wetting / dispersing agents	0 - 0.5	% by mass
Thickening agents	0 - 1	% by mass
Defoamers	0 - 0.6	% by mass
Auxiliary materials	0 - 10	% by mass

The following auxiliary materials are used: biocides < 0.2 %, rust inhibitors < 0.2 %, water-repellent agents < 0.6 %, UV stabilisers < 0.5 %, neutralising agents < 0.2 %, rheological additives < 0.5 %, levelling agents < 0.3 %, other auxiliary materials < 2 % each.

More detailed information on the products and ingredients can be found in the respective manufacturer's specifications (e.g. safety data sheets or product data sheets).

1) This product contains substances listed in the *ECHA candidate list* of substances of very high concern (SVHC) for authorisation (date: 25 June 2025) exceeding 0.1 percentage by mass: no

2) This product contains other CMR substances in categories 1A or 1B which are not on the *candidate list*, exceeding 0.1 percentage by mass: yes
For melamine-based products: formaldehyde

3) Biocidal products were added to this product or it has been treated with biocidal products (this then concerns a treated product as defined by the *Biocidal Products Regulation* No. 528/2012): yes;
In-can preservatives: Bis(3-aminopropyl)(dodecyl)amine (BDA); benzisothiazolinone (BIT); bronopol (BNPD); chloromethylisothiazolinone (CIT); chloromethylisothiazolinone (CIT) / methylisothiazolinone (MIT) 3:1; dibromodicyanobutane (DBDCB); (ethylene dioxy)-dimethanol (EDDM); 3-iodo-2-propynyl butylcarbamate (IPBC); methylisothiazolinone (MIT); sodium pyrithione; silver chloride; tetramethylolacetylene diurea (TMAD); zinc pyrithione.
Film preservatives: Diuron (DMCU), isoproturon, terbutryn, dichloroctylisothiazolinone (DCOIT), octylisothiazolinone (OIT), 3-iodo-2-propynyl butylcarbamate (IPBC), zinc pyrithione.

Manufacturing
Paints and coatings are generally manufactured discontinuously in batch processes, i.e. individual batches or series of individual batches are mixed from the constituent materials, the solids contained therein are ground, and the finished products are filled into delivery containers. The quality of the products and their safe handling are ensured by relevant regulations such as the *REACH Regulation*, the German Ordinance on Industrial Safety and Health (*BetrSichV*), the German Federal Water Act (*WHG*), and the German Federal Immission Control Act (*BImSchG*). The companies are also subject to external monitoring (e.g. *ISO 9001* or *ISO14001*). The raw materials are stored in accordance with *TRGS 509* and *TRGS 510*. When storing and handling preservatives, the *Biocidal Products Regulation* and the manufacturer's instructions are observed. In the chemical industry, safety goggles, gloves, safety footwear, workwear suitable for the process and, where necessary, a safety helmet are compulsory.

Depending on the operational structure, the raw materials are dosed either automatically or manually, whilst ensuring that appropriate health and safety measures are observed.

Reference service life
Water-based stoving coatings serve a variety of purposes in enhancing the appearance of surfaces and providing corrosion protection.
Their use significantly improves serviceability and considerably extends the original service life. When used as intended in accordance with the rules of technology, there is no experience of limitations to the service life due to ageing. The manufacturer's instructions on maintenance and care must be observed where applicable. The anticipated reference service life depends on the specific installation situation and the associated exposure of the product. It can be influenced by weathering as well as mechanical or chemical loads. The average service life is between 4 and 20 years.

LCA: Calculation rules

Declared unit
The association EPD refers to the production of 1 kg liquid coating. The consumption of products that are applied over a large area can be between 50 and 250 g/m².
For the Life Cycle Assessment calculation, a marketable, actually produced worst-case formulation was used, which has the highest environmental impacts within the specified product range.

Name	Value	Unit
Gross density	1000 - 1400	kg/m^3
Declared unit	1	kg

Other declared units may be used provided that the conversion is clearly shown.

Data quality
The data quality can be described as good. The primary data was collected in full, taking all relevant flows into account. The background data was taken from the *Sphera MLC* databases. The databases were last updated in 2025.

System boundary
The declaration type corresponds to the recorded life cycle stages as specified in Section 5.2 of *EN 15804*: cradle to factory gate with options, modules C1-C4 and module D (A1-A3 + C + D) and additional modules A4 and A5.

- A1 - Production of primary products
- A2 - Transport to the plant (EURO 6, 27 tonnes total load, 61 % capacity utilisation)
- A3 - Production incl. energy supply, production of packaging, auxiliary and operating materials, and waste treatment. The following processes are included:
  - -Supply processes for primary products and energy,
  -- Manufacturing processes of the products,
  -- Incineration of production waste (solid waste) without credits
  - Production of packaging.
- A4 - Transport to the warehouse and installation site (EURO 6, 27 tonnes total load, 61 % capacity utilisation)
- A5 - Installation (disposal of packaging and product residues (1 %) as well as emissions during installation). The energy consumption associated with the incineration of stoving paints is taken into account in A5. Module A5 also considers the treatment of waste from product packaging. This section examines the incineration of plastic buckets with energy recovery. The energy generated during disposal is awarded as a credit in module D.
- C1 - Dismantling or demolition is carried out manually and free of loads.
- C2 - Transport (C2) covers a distance of 50 km with a diesel truck (EURO 6, 27 tonnes total load, 61 % capacity utilisation)
- C3 - Incineration of the product
- C4 - No expenses
- D - Credits from the incineration of packaging materials. As a conservative scenario, no credits, i.e. energy credits from the incineration of coated substrate, are awarded.

The electricity mix consists of the German residual electricity mix (0.879 kg CO_2 equiv./kWh).

Period under review
The formulation data corresponds to the practical mass data that was drawn up with the members of the VdL sector group for industrial coatings in 2025. The production data refers to the year 2024.

Geographic representativeness
Country or region in which the declared product system is manufactured, used or handled at the end of the product's life span: Europe

Comparability
Basically, a comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to *EN 15804* and the building context and product-specific performance characteristics are taken into account. The Sphera LCA for Experts (formerly GaBi Software System) software version 10.9 in combination with the associated databases Managed LCA Content (MLC CUP) was used. The background data comes from the *Sphera MLC* database CUP 2025.1.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

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

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO_2.

The following technical information is the basis for the declared modules or can be used for the development of specific scenarios in the context of a building assessment if modules are not declared (MND).

Transport (A4)

Transport to the installation site is divided into two routes: from the plant to an interim storage facility or to a distribution centre (route 1) and from the interim storage facility to the installation site (route 2). Delivery to the installation site is made at short notice on call, for which a capacity utilisation of 3 % is assumed.

Name	Value	Unit
Transport distance - Route 1	250	km
Capacity utilisation (including empty runs) - Route 1	61	%
Transport distance - Route 2	50	km
Capacity utilisation (including empty runs) - Route 2	3	%

Installation (A5)

Name	Value	Unit
Material loss (water vapour)	0.14	kg
Output substances following waste treatment on site	0.01	kg
Dust in the air	-	kg
VOC in the air	0.1	kg
Plastic (packaging)	0.05	kg

Reference Lifetime

Name	Value	Unit
Reference service life	4 - 20	a

End of Life (C1-C4)

Name	Value	Unit
Collected as mixed waste	0.75	kg
For incineration	0.75	kg

Reuse, recovery, and recycling potential (D), relevant scenario information

Module D contains the credits from the incineration processes from A5 (packaging waste). An R1 value of > 0.6 is assumed for the waste incineration plant.

LCA: Results

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

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 kg Water-based stoving coatings for industrial applications

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq	4.44E+00	7.96E-02	6.41E-01	0	2.99E-03	1.72E+00	0	-8.35E-02
GWP-fossil	kg CO_2 eq	4.32E+00	7.63E-02	6.36E-01	0	2.86E-03	1.72E+00	0	-8.29E-02
GWP-biogenic	kg CO_2 eq	1.14E-01	1.32E-03	4.89E-03	0	4.96E-05	1.02E-04	0	-5.33E-04
GWP-luluc	kg CO_2 eq	2.46E-03	1.99E-03	1.07E-04	0	7.5E-05	4.4E-05	0	-3.28E-05
ODP	kg CFC11 eq	2.13E-11	2.16E-14	5.5E-14	0	8.15E-16	2.82E-13	0	-1E-12
AP	mol H^+ eq	9.09E-03	1.16E-04	5.99E-04	0	3.94E-06	5.09E-04	0	-8.83E-05
EP-freshwater	kg P eq	1.68E-05	1.47E-07	4.33E-08	0	5.53E-09	4.59E-08	0	-1.1E-07
EP-marine	kg N eq	2.76E-03	4.53E-05	1.97E-04	0	1.5E-06	1.57E-04	0	-3.11E-05
EP-terrestrial	mol N eq	2.84E-02	5.08E-04	2.23E-03	0	1.67E-05	2.43E-03	0	-3.44E-04
POCP	kg NMVOC eq	9.88E-03	1.08E-04	1.01E-01	0	3.68E-06	4.1E-04	0	-7.81E-05
ADPE	kg Sb eq	9.51E-06	1.04E-08	3.94E-09	0	3.9E-10	2.77E-09	0	-8.71E-09
ADPF	MJ	7.87E+01	1E+00	5.18E+00	0	3.78E-02	4.56E-01	0	-1.23E+00
WDP	m^3 world eq deprived	6.86E-01	2.95E-04	1.79E-02	0	1.11E-05	1.75E-01	0	-9.71E-04

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 Water-based stoving coatings for industrial applications

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.03E+01	8.66E-02	3.13E-02	0	3.26E-03	1.29E-01	0	-4.44E-01
PERM	MJ	0	0	0	0	0	0	0	0
PERT	MJ	1.03E+01	8.66E-02	3.13E-02	0	3.26E-03	1.29E-01	0	-4.44E-01
PENRE	MJ	6.4E+01	1E+00	7.61E+00	0	3.78E-02	1.28E+01	0	-1.23E+00
PENRM	MJ	1.47E+01	0	-2.42E+00	0	0	-1.24E+01	0	0
PENRT	MJ	7.87E+01	1E+00	5.18E+00	0	3.78E-02	4.56E-01	0	-1.23E+00
SM	kg	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0
FW	m^3	1.91E-02	6.16E-05	1.05E-03	0	2.32E-06	4.13E-03	0	-1.59E-04

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 kg Water-based stoving coatings for industrial applications

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	2.22E-08	5.23E-11	7.94E-11	0	1.97E-12	2.79E-10	0	-9.68E-10
NHWD	kg	3.15E+00	1.49E-04	2.93E-03	0	5.62E-06	3.67E-02	0	-6.49E-04
RWD	kg	1.43E-03	1.45E-06	7.51E-05	0	5.47E-08	1.28E-05	0	-4.45E-05
CRU	kg	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0
EEE	MJ	0	0	2.85E-01	0	0	0	0	0
EET	MJ	0	0	6.57E-01	0	0	0	0	0

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

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1 kg Water-based stoving coatings for industrial applications

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	1.35E-07	1.02E-09	6.04E-09	0	3.57E-11	2.82E-09	0	-6.35E-10
IR	kBq U235 eq	1.95E-01	1.43E-04	5.86E-03	0	5.4E-06	1.28E-03	0	-4.46E-03
ETP-fw	CTUe	6.14E+01	1.11E+00	1.65E+00	0	4.18E-02	1.68E-01	0	-1.46E-01
HTP-c	CTUh	9.44E-10	1.59E-11	2.02E-11	0	5.99E-13	1.74E-11	0	-1.03E-11
HTP-nc	CTUh	3.75E-08	6.15E-10	7.25E-09	0	2.32E-11	7.85E-10	0	-2.72E-10
SQP	SQP	6.75E+00	5.26E-01	7.92E-02	0	1.98E-02	1.28E-01	0	-2.83E-01

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 (carcinogenic); HTP-nc = Potential comparative toxic unit for humans (not carcinogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator 'Potential human exposure efficiency relative to U235'. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.
Disclaimer 2 – for the indicators 'abiotic depletion potential for non-fossil resources', 'abiotic depletion potential for fossil resources', 'water (user) deprivation potential, deprivation-weighted water consumption', 'potential comparative toxic unit for ecosystems', 'potential comparative toxic unit for humans – carcinogenic', 'Potential comparative toxic unit for humans - not carcinogenic', 'potential soil quality index'. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

Standards

EN 15804
DIN EN 15804:2012+A2:2019+AC:2021, Sustainability of construction works – Environmental product declarations – Core rules for the product category construction products

EN 16402
DIN EN 16402:2019-08, Paints and varnishes – Assessment of emissions of substances from coatings into indoor air – Sampling, conditioning and testing

ISO 9001
DIN EN ISO 9001:2025-09, Quality management systems – Requirements (ISO 9001:2015)

ISO 14001
DIN EN ISO 14001:2026-06, Environmental management systems – Requirements with guidance for use (ISO 14001:2015)

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

Further references

Building regulations of the federal states
http://www.bauordnungen.de/html/deutschland.html (May 2025).

BetrSichV
Ordinance on industrial safety and health; Ordinance on Safety and Health Protection in the Provision of Work Equipment and its Use at Work, on Safety in the Operation of Installations Requiring Monitoring, and on the Organisation of Occupational Health and Safety, December 2025

BImSchG
Federal Immission Control Act; Act on protection against harmful environmental impacts from air pollution, noise, vibrations, and similar processes, August 2025

BImSchV
31st Ordinance implementing the Federal Clean Air Act (Ordinance on the limitation of emissions of volatile organic compounds arising from the use of organic solvents in certain installations, 31st BImSchV), January 2024

Biocidal Products Regulation
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, May 2012

ChemVOCFarbV
Chemicals Ordinance on the limitation of emissions of volatile organic compounds (VOC) by restricting the placing on the market of solvent-based paints and varnishes (Solvent-based paints and varnishes ordinance, ChemVOCFarbV), December 2004

Decopaint Directive
Directive 2004/42/EC of the European Parliament and of 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, April 2004

ECHA
European Chemicals Agency (ECHA): List of substances of very high concern for authorisation, Helsinki: European Chemicals Agency, 25 June 2025; https://echa.europa.eu/de/candidate-list-table

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Product category rules for building-related products and

services. Part A: Calculation rules for the Life Cycle Assessment and requirements for the project report, Berlin: Institut Bauen und Umwelt e.V. (ed.), Version 1.4, April 2024 (www.ibu-epd.com)

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Product category rules for building-related products and services. Part B: Requirements for the EPD for coatings with organic binders, Institut Bauen und Umwelt e.V., www.ibu-epd.com, Version 11, August 2024

Sphera LCA software and database
Sphera LCA For Experts (formerly GaBi Software System) with the associated databases Managed LCA Content MLC (formerly GaBi databases), Sphera Solutions GmbH. CUP version: 2025.1. University of Stuttgart, Leinfelden Echterdingen, MLC data documentation at https://sphera.com/productsustainabilitygabidatasearch/ (March 2024)

TRGS 509
Technical Rules for Hazardous Substances (TRGS), Rule 509: Storage of liquid and solid hazardous substances in stationary containers and filling and emptying points for transportable containers, June 2022, Federal Institute for Occupational Safety and Health

TRGS 510
Technical Rules for Hazardous Substances (TRGS), Rule 510: Storage of hazardous substances in transportable containers, December 2020, Federal Institute for Occupational Safety and Health

WHG
Water Resources Act; Act on the Regulation of Water Resources, January 2026

The following companies (production sites) from the industrial coatings section of the German Paint and Printing Ink Association (VdL) are involved in the creation of the EPD:
Axalta Coating Systems Germany GmbH & Co. KG: Wuppertal (DE), Köln (DE)
BASF Coatings GmbH: Münster, Würzburg (DE)
Becker Industrielack GmbH: Dormagen (DE)
Berger-Lacke GmbH Industrial Coatings: Grünstadt a. d. Weinstraße (DE)
Bergolin GmbH & Co. KG: Osterholz-Scharmbeck (DE)
Bomix Chemie GmbH: Telgte (DE)
brocolor® LACKFABRIK GmbH: Gronau (DE)
CoaTIB GmbH: Mannheim (DE)
Dörken Coatings GmbH & Co. KG: Herdecke (DE)
Dr. Demuth Derisol Lackfarben GmbH & Co. KG: Northeim (DE)
ELANTAS Europe GmbH: Hamburg (DE)
Emil Frei GmbH & Co. KG: Bräunlingen-Döggingen (DE), Birminghan (UK), Paarp (SE), Torun (PL), Lázne Belohrad (CZ), Izmir (TR)
Farben-Kiroff-Technik e. K.: Fürth (DE)
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Marius Schütz, 66636 Tholey, 30 September 2026

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