

ENVIRONMENTAL PRODUCT DECLARATION

in accordance with *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	Bundesverband der Gipsindustrie e.V. / Industriegruppe Estrichstoffe
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-BVG-20230135-IBE1-EN
Issue date	29 August 2023
Valid until	28 August 2028

Compounds for Calcium Sulphate Screed Bundesverband der Gipsindustrie / Industriegruppe Estrichstoffe

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



1. General information

Bundesverband der Gipsindustrie / Industriegruppe Estrichstoffe

Programme holder

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

Declaration number

EPD-BVG-20230135-IBE1-EN

This Declaration is based on the product category rules:

Mineral factory mortar, 01.08.2021
 (PCR checked and approved by the independent Expert Council (SVR))

Issue date

29 August 2023

Valid until

28 August 2028



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



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

Calcium sulphate flowing screed and conventional calcium sulphate screed

Holder of the Declaration

Bundesverband der Gipsindustrie e.V. /
 Industriegruppe Estrichstoffe
 Kochstrasse 6-7
 10969 Berlin
 Germany

Declared product/unit

1 kg calcium sulphate binder (dry, prior to adding water), delivered in bulk in a silo, truck mixer or mobile mixer

Scope:

This EPD is an association EPD for all member companies of the Bundesverband der Gipsindustrie e.V. and the Industriegruppe Estrichstoffe in accordance with the list of members on www.gips.de.

The LCA results comprise the manufacture of compounds for calcium sulphate screed in Germany and can be used in particular for planning purposes prior to awarding contracts. The market for screeds with calcium sulphate as a binding agent is well covered by the members of the Bundesverband der Gipsindustrie e.V. and the Industriegruppe Estrichstoffe.

The technical data was taken from the publications of the Bundesverband der Gipsindustrie e.V. and the Industriegruppe Estrichstoffe currently available as well as the manufacturers represented there.

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

This EPD was drawn up in accordance with the specifications of the EN 15804+A2 standard. This standard is referred to as *EN 15804* hereinafter.

Verification

The EN 15804 European standard serves as the core PCR.

Independent verification of the Declaration and information provided in accordance with ISO 14025:2011

internally externally



Angela Schindler
 (Independent verifier)

2. Product

2.1 Product description / Product definition

This Declaration describes compounds for calcium sulphate flowing screeds and conventional calcium sulphate screeds based on standard recipes and standard production processes.

The declared unit is 1 kg of the dry mixture prior to adding water and aggregates (e.g. standard sand) on the construction site. This dry mixture has a dry density of approx. 1200 kg/m³.

The primary binding agent is bindable calcium sulphate, which is hydrated to form gypsum after adding aggregate and water on the construction site.

Regardless of the fact that cement can also be added to the compounds as a component, this Declaration does not apply for cementitious screed where cement is used as the primary binding agent.

This Declaration only applies for binding compounds delivered in bulk in transport containers (silos), i.e. not in bags. Directive (EU) No 305/2011 (*Construction Products Regulation*) applies for placing the product on

the market in the EU/EFTA (with the exception of Switzerland).

The products require a Declaration of Performance taking consideration of the harmonised *DIN EN 13454-1:2005-01, Binders, composite binders and factory-made mixtures for floor screeds based on calcium sulphate – Part 1: Definitions and requirements*, and *DIN EN 13813:2002, Screed material and floor screeds – Screed materials – Properties and requirements*, and *CE marking*.

Application of the products is subject to the respective national guidelines.

2.2 Application

Compounds for calcium sulphate flowing screeds and conventional calcium sulphate screeds are used in the manufacture of screeds on construction sites,

whereby the product complies with the following requirements of the *EN 15804* with regard to sole consideration of the life cycle phases A1–A3:

During installation, the product is physically bonded with other products (in this case aggregate) in such a way that it cannot be physically separated from them

		Calcium sulphate screed CA (moist application)	Calcium sulphate flowing screed CAF
Density	kg/dm ³	1.8 - 2.1	1.8 - 2.1
Modulus of elasticity	N/mm ²	approx. 20,000	15,000 - 20,000
Water vapour diffusion resistance coefficient		approx. 10	approx. 10
Thermal conductivity	W/mK	approx. 1.2	1.2 - 1.8
Coefficient of thermal expansion	mm/mK	approx. 0.010	0.010 - 0.016
Reaction to fire		Non-combustible (building product class A1 acc. to DIN 4102); in the event of a fire, calcium sulphate offers additional fire resistance on account of the evaporated water of crystallisation.	

2.4 Delivery status

The declared unit is 1 kg of the dry mixture ex works. This dry mixture has a dry density of approx. 1200 kg/m³. The compound is delivered in bulk in silo trucks or mobile mixers.

Aggregate and water are added on site in mobile mixing plants or in a mixing plant and then delivered to the construction site as fresh mortar in a truck mixer.

2.5 Base materials / Ancillary materials

Calcium sulphate flowing screed compounds basically consist of binders, aggregates and additives already added in the factory.

The primary binder – bindable calcium sulphate – always comes from various calcium sulphates, which are added at a rate of approx. 95% by weight.

Various calcium sulphate raw materials of natural or synthetic origin can be used and various manufacturing methods applied for achieving the binding capacity. These are outlined in the Code of Practice "Die Rohstoffe für Calciumsulfat-Fließestriche" (Raw materials for calcium sulphate flowing screeds) (*IGE raw materials*).

This Declaration takes consideration of all primary binding agents, i.e. natural anhydrite, alpha-hemihydrate, thermal anhydrite and HF anhydrite, and their upstream chains (FGD gypsum as a by-product of

during disposal; the original consistency as a powder is transformed into a solid matrix.

The product or material is no longer identifiable on disposal due to physical or chemical transformation processes, as it undergoes a chemical transformation to gypsum and at the same time forms physical bonds with aggregate.

The product does not contain any biogenic carbon.

2.3 Technical data

Technical construction data is based on information provided by the manufacturers. As the declared unit refers to delivery to the construction site, this technical data is not listed here. Reference is made to the Code of Practice "Calciumsulfat-Fließestriche" (Calcium sulphate flowing screeds), which provides information for planning (*IGE Planning*), and the manufacturers' websites.

The general technical data is outlined in the following overview from the *Gypsum Data Book* and refers to the condition after using the binding compound:

electricity production and HF anhydrite as a by-product of hydrofluoric acid production).

Cement with up to 4% by weight is used as an aggregate, which is already added in the factory.

Additives are applied to the products under review in percentages < 1% by weight in total and/or < 0.02% by weight in terms of individual additives in relation to the total mass of the dry mixture.

Details on SVHC, CMR substances cat. 1A or 1B, and biocides:

The product contains substances from the ECHA candidate list of Substances of Very High Concern (SVHC) (date: 07.03.2023) exceeding 0.1% by mass (*ECHA*): no

The product contains other CMR substances in categories 1A or 1B which are not on the candidate list exceeding 0.1% by mass in at least one partial product: no

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

This Declaration does not apply to cement-based compounds with cement as the primary binder,

irrespective of the fact that small quantities of cement may be added as an additive.

2.6 Manufacture

Various manufacturing processes can be used for the products.

The plant with the greatest capacity for using natural anhydrite, alpha-hemihydrate, thermal anhydrite and HF anhydrite, respectively, as primary binding agents was modelled for this EPD.

Each of these manufacturing processes was given an equal weighting of 25% in the overall balance.

2.7 Environment and health during manufacturing

The products are manufactured in plants approved according to the Federal Immission Control Act (*BImSchG*) or the Federal Mining Act (*BBergG*). Health protection is ensured via occupational health and safety management systems.

2.8 Product processing / Installation

The processing of the compounds into calcium sulphate screed takes place on the construction site or in the mixing plant and is not the subject of this Declaration ex works of the manufacturer of these compounds. For more detailed information, please refer to the EPD for calcium sulphate flowing screeds and conventional calcium sulphate screeds

2.9 Packaging

Compounds are delivered as bulk goods in silo trucks or mobile mixers to the place of processing (e.g. mixing plant) or to the construction site (mobile mixing plant). No packaging waste is incurred.

2.10 Condition of use

The compounds under review are intermediate products which are further processed on the construction site or in the mixing plant.

The manufacturer's instructions must be observed with regard to the latest possible processing.

The calcium sulphate screed produced with the compounds is not used for any other purposes.

2.11 Environment and health during use

If used as designated, especially with regard to avoiding the inhalation of dust, no particular hazard for humans and the environment is to be expected during mixing and further production.

In the event of an alkaline product, setting regulations in hazardous substances must be observed if there is a possibility of the compound coming into contact with skin or eyes.

A safety data sheet is available for these products.

2.12 Reference service life

It is unnecessary to specify a life cycle duration for the intermediate product to be further processed, as this is only required for construction products in their installed state.

According to the table "Nutzungsdauern von Bauteilen für Lebenszyklusanalysen nach dem Bewertungssystem Nachhaltiges Bauen (BNB)" (Useful life of components for the LCA according to the Sustainable Building assessment system), the useful life is > 50 years in line with code number 352.111 (flowing screeds: anhydrite screeds ...) or 352.113 (screeds as wear floors) (*BNB service life*) for the end products manufactured from the compounds.

2.13 Extraordinary effects

Fire

The product is non-combustible.

Water

The product must be protected from contact with water until processing, as it may otherwise lose its properties as a binder for the production of calcium sulphate screeds.

Mechanical destruction

As a powder, the product is not susceptible to mechanical destruction. Consequences for the environment, such as contact with groundwater (e.g. due to unforeseen release in the event of transport accidents), must be prevented by prompt dry storage in containers.

2.14 Reuse phase

No special subsequent use is intended for the intermediate product itself. A possible return in the case of non-utilisation must be clarified with the respective supplier.

2.15 Disposal

Waste code:
 17 08 02 Gypsum-based construction materials not contaminated by hazardous substances

2.16 Further information

Additional information is available at www.gips.de.

3. LCA: Calculation rules

3.1 Declared unit

These calculations refer to the arithmetic mean of data initially recorded separately for:

- 1 kg compound made from natural anhydrite
- 1 kg compound made from alpha-hemihydrate
- 1 kg compound made from thermal anhydrite
- 1 kg compound made from HF anhydrite

Details on declared unit

Name	Value	Unit
------	-------	------

Declared unit	1	kg
Conversion factor [mass/declared unit]	-	-

3.2 System threshold

EPD type: in accordance with *EN 15804*:
 cradle-to-gate A1–A3

Modules A1–A3 (Product stage) include the production of raw materials based on framework conditions inherent in Germany and transport thereof, the

provision of energy (German electricity mix), and the manufacturing processes required for the production of all components for the product. As the products are transported in bulk to the construction site, no packaging is taken into consideration, whereby the product delivered in powder form complies with the following requirements of the *DIN EN 15804* with regard to sole consideration of the life cycle phases A1–A3:

The product is combined with other products (water, aggregate) during installation in such a way that it can no longer be physically separated from them during disposal.

The product is no longer identifiable as such due to physical processes (mixing) with other substances and chemical transformation during disposal.

The product does not contain any biogenic carbon.

3.3 Estimates and assumptions

Packaging materials for powder products to be delivered were not considered. As a general rule, the products can be delivered as bulk goods in silos, truck mixers or mobile mixers.

3.4 Cut-off criteria

In accordance with the target definition, all relevant input and output flows > 1% by weight that occur in connection with the product under consideration were identified and quantified.

All relevant data from the production process is therefore taken into account in the LCA, i.e. the raw materials used, the thermal energy used, and the electricity consumption.

The requirement that a maximum of 5% of the energy and mass input may be neglected is complied with.

3.5 Underlying data

The data sets used are taken from the *GaBi* databases.

The underlying background database is based on the *GaBi* 2021, Service Pack 40/CUP 2020.1 version. The *GaBi* database provides the life cycle inventory data for raw and process materials, transport and energy.

3.6 Data quality

The data quality of the life cycle inventories is assessed based on their precision (measured, calculated, literature values or estimated), completeness (e.g. unreported emissions), consistency (degree of uniformity of the methods used), and representativeness (geographical, temporal, technological).

In order to comply with these aspects and thus ensure reliable results, first-hand industry data was used together with consistent underlying data from the *GaBi* 2021 databases.

3.7 Period under review

The period under review for the data refers to the annual average. The primary data recorded refers to 2020.

3.8 Geographical representativity

Country or region in which the declared product system is manufactured and possibly utilised and treated at its end of life: Germany

3.9 Allocation

The allocation methods used in underlying data (materials and energy) originating from the *GaBi* databases are documented online at <http://www.gabi-software.com>.

All incineration processes are depicted by partial flow analyses of the respective materials.

3.10 Comparability

As a general rule, EPD data can only be compared or evaluated when all of the data records to be compared have been drawn up in accordance with *EN 15804* and the building context and/or product-specific characteristics are taken into consideration. The *GaBi* ts underlying database was used (SP40).

4. LCA: Scenarios and additional technical information

Characteristic product features of biogenic carbon

Information describing the biogenic carbon content at the plant gate

Name	Value	Unit
Biogenic carbon in the product	-	kg C

The product does not contain any biogenic carbon.

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

Only the environmental impact potentials resulting from the production of the compounds are declared in this EPD. None of the other processes after the factory gate are considered.

In accordance with *EN 15804*, the environmental impacts of Modules A1–A3 are summarised.

5. LCA: Results

The following tables depict the LCA results for the manufacturing phase A1–A3 as far as the factory gate. A calculation variant over the entire life cycle using this partial data is available as an EPD entitled “Calcium sulphate flowing screed and conventional calcium sulphate screed”.

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

Product stage			Construction process stage		Use stage							End-of-life stage				Benefits and loads beyond the system thresholds
Raw material supply	Transport	Manufacturing	Transport from the manufacturer to the site	Assembly	Use / Application	Maintenance	Repairs	Replacement	Renewal	Operational energy use	Operational water use	Deconstruction / Demolition	Transport	Waste treatment	Landfilling	Reuse, recovery or recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MNR	MNR	MNR	MND	MND	MND	MND	MND	MND	MND

LCA RESULTS – ENVIRONMENTAL IMPACTS ACCORDING TO EN 15804+A2: 1 KG COMPOUND FOR CALCIUM SULPHATE SCREED

Indicator	Unit	A1-A3
Global warming potential - total (GWP total)	kg CO ₂ equiv.	1.71E-01
Global warming potential - fossil (GWP fossil)	kg CO ₂ equiv.	1.69E-01
Global warming potential - biogenic (GWP biogenic)	kg CO ₂ equiv.	1.16E-03
Global warming potential - luluc (GWP luluc)	kg CO ₂ equiv.	5.86E-05
Ozone depletion potential (ODP)	kg CFC11 equiv.	5.97E-16
Acidification potential of soil and water (AP)	mol H ⁺ equiv.	4.23E-04
Eutrophication potential of fresh water (EP fresh water)	kg P equiv.	1.07E-07
Eutrophication potential of salt water (EP marine)	kg N equiv.	7.88E-05
Eutrophication potential of soil (EP terrestrial)	mol N equiv.	8.65E-04
Photochemical ozone creation potential (POCP)	kg NMVOC equiv.	2.39E-04
Abiotic depletion potential non-fossil resources (ADPE)	kg Sb equiv.	1.31E-08
Abiotic depletion potential fossil fuels (ADPF)	MJ	2.25E+00
Water depletion potential (WDP)	m ³ world equiv., extracted	4.56E-03

LCA RESULTS – INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 kg compound for calcium sulphate screed

Indicator	Unit	A1-A3
Renewable primary energy as energy carrier (PERE)	MJ	1.49E-01
Renewable primary energy as material utilisation (PERM)	MJ	0
Total use of renewable primary energy sources (PERT)	MJ	1.49E-01
Non-renewable primary energy as energy carrier (PENRE)	MJ	2.25E+00
Non-renewable primary energy as material utilisation (PENRM)	MJ	0
Total use of non-renewable primary energy sources (PENRT)	MJ	2.25E+00
Use of secondary materials (SM)	kg	0
Renewable secondary fuels (RSF)	MJ	0
Non-renewable secondary fuels (NRSF)	MJ	0
Net use of fresh water (FW)	m ³	2.72E-04

LCA RESULTS – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 kg compound for calcium sulphate screed

Indicator	Unit	A1-A3
Hazardous waste for disposal (HWD)	kg	1.33E-09
Non-hazardous waste for disposal (NHWD)	kg	8.3E-04
Radioactive waste for disposal (RWD)	kg	2.57E-05
Components for reuse (CRU)	kg	0
Materials for recycling (MFR)	kg	0
Materials for energy recovery (MER)	kg	0
Exported electrical energy (EEE)	MJ	0
Exported thermal energy (EET)	MJ	0

LCA RESULTS – Additional impact categories acc. to EN 15804+A2 – optional: 1 kg compound for calcium sulphate screed

Indicator	Unit	A1-A3
Occurrence of illnesses caused by particulate emissions (PM)	Disease incidences	3.77E-09
Impact of exposure to people to U235 (IR)	kBq U235 equiv.	2.79E-03
Toxicity comparison unit for ecosystems (ETP fw)	CTUe	7.5E-01
Toxicity comparison unit for humans (carcinogenic) (HTP c)	CTUh	2.78E-11
Toxicity comparison unit for humans (non-carcinogenic) (HTP nc)	CTUh	1.49E-09
Soil quality index (SQP)	SQP	1.32E-01

Limitation note 1 – applies to the indicator “Potential impact of exposure to people to U235”:

This impact category mainly addresses the potential impact of low-dose ionising radiation on human health in the nuclear fuel cycle. This does not consider impacts attributable to possible nuclear accidents and occupational exposure, nor to the disposal of radioactive waste in underground facilities. Potential ionising radiation from soil, radon and some building materials is also not measured by this indicator.

Limitation note 2 – applies for the indicators: “Potential for Abiotic Resource Depletion – Non-Fossil Resources”, “Potential for Abiotic Resource Depletion – Fossil Fuels”, “Water Depletion Potential (User)”, “Potential Ecosystem Toxicity Comparison Unit”, “Potential Human Toxicity Comparison Unit – Carcinogenic Effect”, “Potential Human Toxicity Comparison Unit – Non-Carcinogenic Effect”, “Potential Soil Quality Index”.

The results of this environmental impact indicator must be used with caution, as the uncertainties in these results are high or there is only limited experience with the indicator.

6. LCA: Interpretation

The LCA within the manufacturing phase is broken down as follows:

- A1 contains the contributions of the raw materials and their upstream chains.
- A2 shows the emissions from transport to the production site.
- A3 contains the emissions from energy consumption in the production plant.

In accordance with *EN 15804*, the environmental impacts of these phases are summarised.

The use of non-renewable energy sources has the greatest influence, e.g. as a directly used fuel, indirectly via the provision of electricity from non-renewable energy within the German electricity mix, or as a fuel for transport.

7. Proof

7.1 Leaching

On analysis according to the Landfilling Ordinance, the product displays the sulphate concentration in the saturation range which is typical for gypsum (approx. 1500 mg/l), resulting in disposal options only from landfill class I upwards. Gypsum is classified as a listed substance in Water Hazard Class 1 (slightly hazardous for water). Heavy metal content is significantly lower than the allocation criteria for landfill class I. The waste producer is responsible for proper disposal, which depends on parameters such as use, sorting depth during deconstruction, collection (separately or together with other construction waste) and waste treatment.

7.2 Radioactivity

The product can be used without restriction with overall dose contributions of significantly lower than 0.3

mSv/a, determined on the basis of the index calculation to RP 112 and the radon concentration (*BfS* report).

7.3 VOC emissions

The requirements in accordance with the *AgBB* test scheme are complied with in terms of all existing test items (*Fraunhofer IBP*):

TVOC₃ < 10 mg/m³
 Carcinogens₃ EU cat. 1 and 2 ≤ 0.01 mg/m³
 TVOC₂₈ < 1.0 mg/m³
 SVOC₂₈ ≤ 0.1 mg/m³
 Carcinogens₂₈ EU cat. 1 and 2 ≤ 0.001 mg/m³
 Total VOC₂₈ excl. LCI ≤ 0.1 mg/m³
 Total VOC incl. LCI R = $\sum C_i / LCli < 1$

8. References

Standards:

DIN 4102-1

DIN 4102-1:1998-05, Fire behaviour of building materials and components – Part 1: Building materials; concepts, requirements and tests

DIN EN 13213

DIN EN 13213:2001-12, Hollow floors

DIN EN 13318

DIN EN 13318:2000-12, Screed material and floor screeds – Definitions

DIN EN 13454-1

DIN EN 13454-1:2005-01, Binders, composite binders and factory-made mixtures for floor screeds based on calcium sulphate – Part 1: Definitions and requirements

DIN EN 13813

DIN EN 13813:2002-01, Screed material and floor screeds – Screed materials – Properties and requirements

DIN EN ISO 14040

DIN EN ISO 14040: 2009:11, Environmental management – Life cycle assessment – Principles and framework

DIN EN ISO 14044

DIN EN ISO 14044: 2006-10, Environmental management – Life cycle assessment – Requirements and guidelines

DIN 18195-1

DIN 18195-1:2011-12, Waterproofing of buildings – Part 1: Principles, definitions, attribution of waterproofing types

DIN 18560-2

DIN 18560-2:2009-09, Floor screeds – Part 2: Floor screeds and heating floor screeds on insulation layers (flowing screeds)

DIN 18560-3

DIN 18560-3:2006-03, Floor screeds – Part 3: Bonded screed

DIN 18560-4

DIN 18560-4:2012-06, Floor screeds – Part 4: Screeds laid on separated layer

Other literature:**AgBB**

Requirements for indoor air quality in buildings: health-related evaluation of emissions by volatile organic compounds (VOC, VOC and SVOC) from building products, Committee for Health-Related Evaluation of Construction Products (AgBB)

<https://www.umweltbundesamt.de/themen/gesundheit/kommissionen-arbeitsgruppen/ausschuss-zur-gesundheitlichen-bewertung-von-agbb-gesundheitliche-bewertung-der-emissionen-von-fluchtigen-organischen-verbindungen-ausbauprodukten>

Construction Products Regulation

(EU) Directive No 305/2011 dated 9 March 2011, ABI. (EU) L 88 / 5 ff. dated 4 April 2011

BBergG

Federal Mining Act dated 13 August 1980 (Federal Law Gazette No. I, p. 1310), last amended by Article 1 of the law dated 14 June 2021 (Federal Law Gazette No. I, p. 1760)

BfS report

Natural radioactivity in construction materials and the ensuing radiation exposure, Field of radiation protection and environment; K. Gehrcke, B. Hoffmann, U. Schkade, V. Schmidt, K. Wichterey; urn:nbn:de:0221-201210099810, Federal Office for Radiation Protection, November 2012, http://doris.bfs.de/jspui/bitstream/urn:nbn:de:0221-201210099810/3/BfS_2012_SW_14_12.pdf

BImSchG

Federal Immission Control Act, version announced on 17 May 2013 (Federal Law Gazette No. I, p. 1274; 2021 I, p. 123), last amended by Article 2, section 3 of the law dated 19 October 2022 (Federal Law Gazette No. I, p. 1792)

BNB service life

BBSR table "Service lives of components for LCA in accordance with BNB", "Sustainable Building Information Portal" of the Federal Ministry of Transport, Building and Urban Affairs;

<https://www.nachhaltigesbauen.de/austausch/nutzungs-dauern-von-bauteilen/>

CE marking

(EU) Directive No 765/2008 and Decision No 768/2008/EC, both dated 9 July 2008, Abl. (EU) L 218 / 30 ff. and 82 ff. dated 13 August 2008

ECHA

European Chemicals Agency (ECHA)
Candidate list of Substances of Very High Concern for Authorisation (published in accordance with Article 59(10) of the REACH Regulation); <http://echa.europa.eu/de/candidate-list-table>; last revised: 7 March 2023

Fraunhofer IBP

Fraunhofer-Institut für Bauphysik IBP, Holzkirchen
Test report: Cross-sectional study on the emission potential of volatile organic compounds from gypsum components and gypsum products for interior applications (July 2010). Published on www.gips.de (section: Research association, Projects, 2010). This report was supplemented by current test products.

Gypsum Data Book

Gypsum Data Book; pub.: Bundesverband der Gipsindustrie e.V., Kochstrasse 6-7, 10969 Berlin
Published on: www.gips.de (section: Publications / Books), last revised: May 2013

IGE M1 Wet rooms

Code of Practice 1 "Calciumsulfat-Fließestriche in Feuchträumen" (Calcium sulphate flowing screeds in wet rooms); pub.: Bundesverband der Gipsindustrie e.V., Kochstrasse 6-7, 10969 Berlin
Published on: www.gips.de (section: Publications / Codes of Practice); last revised: May 2014

IGE M5 Joints

Code of Practice 5 "Fugen in Calciumsulfat-Fließestrichen" (Joints in calcium sulphate flowing screeds); pub.: Bundesverband der Gipsindustrie e.V., Kochstrasse 6-7, 10969 Berlin
Published on: www.gips.de (section: Publications / Codes of Practice); last revised: May 2014

IGE Planning

Code of Practice "Hinweise für die Planung" (Planning information); pub.: Bundesverband der Gipsindustrie e.V., Kochstrasse 6-7, 10969 Berlin
Published on: www.gips.de (section: Publications / Codes of Practice); last revised: April 2014

IGE Raw materials

Brochure "Die Rohstoffe für Calciumsulfat-Fließestriche" (Raw materials for calcium sulphate floating screeds); pub.: Bundesverband der Gipsindustrie e.V., Kochstrasse 6-7, 10969 Berlin
Published on: www.gips.de (section: Publications / Brochures); last revised: May 2014

Flooding Code of Practice

Removing damage caused by flooding to components made of gypsum or gypsum plaster, BVG Information Service No. 01.
Published on: www.gips.de (section: Download, Publications, Information services), last revised: June 2013

GaBi

GaBi 10.0 dataset documentation for the software system and databases, Sphera Solutions GmbH, Leinfelden-Echterdingen, 2020
(<http://documentation.gabi-software.com/>)

LCA tool

BV Gips LCA tool, version 1.0; created by Sphera Solutions GmbH, IBU-BVG-202101-LT1-DE

PCR, Part A

Institut Bauen und Umwelt e.V., Berlin (pub.): Product category rules for building-related products and

services, Part A: Calculation rules for the Life Cycle Assessment and requirements on the project report, in accordance with EN 15804+A2:2019, version 1.1.1

PCR Mineral factory mortar

Institut Bauen und Umwelt e.V., Berlin (pub.): Product category rules for building-related products and services, Part B: Requirements on the EPD for mineral factory mortar, version 1.6



Publisher

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

+49 (0)30 308 7748-0
info@ibu-epd.com
www.ibu-epd.com



Programme holder

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

+49 (0)30 308 7748-0
info@ibu-epd.com
www.ibu-epd.com



Author of the LCA

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

+49 (0)711 341817-0
info@sphera.com
www.sphera.com



Bundesverband der Gipsindustrie e.V.
Kochstrasse 6-7
10969 Berlin
Germany

+49 (0)30 3116 9822-0
info@gips.de
www.gips.de



Holder of the Declaration

Bundesverband der Gipsindustrie e.V. /
Industriegruppe Estrichstoffe
Kochstrasse 6-7
10969 Berlin
Germany

+49 (0)30 3116 9822-0
info@gips.de
www.gips.de

