“We build a better future”
This claim in our corporate Mission Statement is a sentiment expressing a high amount of responsibility for society and the environment. Our management system focuses on sustainability, through environmental protection activities in both production and product development. Our process management system contains all business processes and is valid worldwide. It has also created a framework for environmental topics that allows us to comprehensively meet the demands of our corporate responsibilities. We want to continue to improve the quality of our products, services and processes throughout the company, and this includes the topic of the environment. It goes without saying that this also embraces meeting the ISO 9001 and ISO 14001 international quality and environmental standards. Our environmental commitment includes both ecological and economic perspectives. We are convinced that sustainable growth can only be achieved if we systematically incorporate the environment in our daily business.
This declaration is an environmental product declaration (EPD) in accordance with ISO 14025. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

<table>
<thead>
<tr>
<th>PROGRAM OPERATOR</th>
<th>UL Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECLARATION HOLDER</td>
<td>Hilti Aktiengesellschaft</td>
</tr>
<tr>
<td>ULE DECLARATION NUMBER</td>
<td>4787951587.102.1</td>
</tr>
<tr>
<td>IBU DECLARATION NUMBER</td>
<td>EPD-HIL-20160139-IAA1-EN</td>
</tr>
<tr>
<td>DECLARED PRODUCT</td>
<td>Fire Finish CFP-SP WB</td>
</tr>
<tr>
<td>REFERENCE PCR</td>
<td>Product Category Rules Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report, 04.2016 Product Category Rules Part B: Pre-formed fire protection systems for cable and duct insulation, 03.2015</td>
</tr>
<tr>
<td>DATE OF ISSUE</td>
<td>September 26, 2016</td>
</tr>
<tr>
<td>PERIOD OF VALIDITY</td>
<td>5 years</td>
</tr>
</tbody>
</table>

The PCR review was conducted by: IBU – Institut Bauen und Umwelt e.V. PCR was approved by the Independent Expert Committee (IEC) of IBU

The CEN Norm EN 15804 serves as the core PCR. This declaration was independently verified in accordance with ISO 14025 by Underwriters Laboratories

☐ INTERNAL ☑ EXTERNAL

Wade Stout

This life cycle assessment was independently verified in accordance with EN 15804 and the reference PCR by: IBU – Institut Bauen und Umwelt e.V.
Disclaimer

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025/ and EN 15804/. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

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.
1. General Information

Hilti Aktiengesellschaft

Programme holder
IBU - Institut Bauen und Umwelt e.V.
Panoramastr. 1
10178 Berlin
Germany

Declaration number
EPD-HIL-20160139-IAA1-EN

This Declaration is based on the Product Category Rules:
Coatings with organic binders, 07.2014
(PCR tested and approved by the SVR)

Issue date
14.10.2016

Valid to
13.10.2021

Owner of the Declaration
HILTI AG
Feldkircherstrasse 100
FL-9494 Schaan
Liechtenstein

Declared product / Declared unit
The declared product is FIRE FINISH CFP-SP WB.
The declared unit involves 1 kilogram of the product.
The packaging is included in the calculation.

Scope:
This document refers to FIRE FINISH CFP-SP WB.
Specific data from the manufacturing plant in Börnsen was used for generating this LCA, which is based on data from 2014. 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.

Verification
The CEN Norm /EN 15804/ serves as the core PCR
Independent verification of the declaration according to /ISO 14025/

Prof. Dr.-Ing. Horst J. Bossenmayer
(President of Institut Bauen und Umwelt e.V.)

Dr. Burkhard Lehmann
(Managing Director IBU)

Dr.-Ing. Wolfram Trinius
(Independent verifier appointed by SVR)

2. Product

2.1 Product description / Product definition
FIRE FINISH CFP-SP WB is an intumescent, water-based fire protection coating. This is a dispersion coating with organic binders, water, mineral fillers, pigments, and additives. The coating is classified as low-emission, and contains no borates, plasticisers, halogens, formaldehydes or alkylphenol ethoxylates (APEO).

2.2 Application
Fire protection of steel components with H and I profiles (beams and columns) and hollow sections for a fire resistance duration of up to 240 minutes in accordance with UL 263.
In general, the complete coating system consists of a suitable anti-corrosion primer, the fire protection coating and if required a suitable topcoat. Primers and topcoats are not components of this EPD.

FIRE FINISH CFP SP WB is mainly used indoors and in open buildings. Tested and approved in accordance with UL 263 for General Interior Purpose applications. FIRE FINISH CFP SP WB is not to be used on components that are constantly exposed to rain or moisture or aggressive gases for a longer period of time.

FIRE FINISH CFP-SP WB is an emission-rated coating material. Sampling, testing and evaluation were effected in accordance with the latest versions of LEED v4, ISO 16000-3, ISO 16000-6.

USA: FIRE FINISH CFP-SP WB meets the requirements for VOC product emissions according to the California Department of Public Health (CDPH).

2.3 Technical Data
FIRE FINISH CFP-SP WB contains no hazardous substances exceeding the limit values of Annex XVII of REACH and the ECHA list of substances of particularly high concern.

Technical construction data

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1.3 - 1.4</td>
<td>kg/m³</td>
</tr>
<tr>
<td>Solids content</td>
<td>67 - 73</td>
<td>%</td>
</tr>
<tr>
<td>pH value</td>
<td>7.6 - 8.8</td>
<td>-log_{10}(a_{H})</td>
</tr>
<tr>
<td>Fire resistance rating UL 263</td>
<td>Up to 240</td>
<td>min</td>
</tr>
<tr>
<td>Durability UL 263</td>
<td>General Interior Purpose</td>
<td>-</td>
</tr>
<tr>
<td>Total VOC ISO 11890-2</td>
<td>&lt; 1 g/l</td>
<td>Detection limit</td>
</tr>
</tbody>
</table>

Environmental Product Declaration Hilti Aktiengesellschaft – Fire Finish CFP-SP WB
have protective clothing and dust masks at their disposal. Suitable body protection equipment is also provided.

The production process is optimized in such a way that the parts of the unit can be cleaned in situ. Any cleaning water is fed back into the production process as production water. If this should not be possible on account of a product change, the cleaning water is collected and thermally recycled.

All types of waste are sorted, stored and returned to the recycling process.

FIRE FINISH CFP-SP WB contains no substances that have to be declared in accordance with REACH (Annex XVII) and in accordance with the ECHA list of substances.

2.8 Product processing/Installation
The product can be applied using brushes, rollers or sprays. Details concerning surface pre-treatment, application requirements and drying behaviour can be seen in the current application guideline (see www.us.hilti.com).

2.9 Packaging
The coating is filled in plastic containers made of polypropylene (PP), which are recycled by the customers returning the packaging. The plastic containers are packed on pallets for shipping and are protected with a shrink foil made of low-density polyethylene (LDPE).

2.10 Condition of use
This is an intumescent fire protection coating on an aqueous polymer dispersion basis for the protection of steel components. After the coating has been applied, the film is formed by physical drying – through evaporation of the receptively contained water.

The dried polymer film, including the non-aqueous substances, remains on the coated component.

2.11 Environment and health during use
FIRE FINISH CFP-SP WB is a coating with extremely low emissions and is not considered to pose a health risk. Emission tests – performed in independent laboratories – have confirmed that the fire protection coating meets the requirements of various national and international emissions standards, with classification in the lowest emission class (see Section 7).

The coating contains no borates, plasticisers, halogens, formaldehydes or alkylphenol ethoxylates (APEO).

2.12 Reference service life
According to UL 263, the service life of FIRE FINISH CFP-SP WB is unlimited when used for the intended purpose. A precondition for a long service life is that the requirements of correct handling and regular inspection of the coated surfaces are satisfied.

The information concerning service life cannot be interpreted as a guarantee given by the manufacturer, but serves as an aid towards the selection of the right product, taking account of the expected and economically reasonable service life of the building.
When the product is used according to the standard codes of practice, adverse influences through ageing are not known.

2.13 Extraordinary effects

Fire
Intumescent fire protection coatings are reactive systems which, under the influence of temperature and through a sharp increase in volume (propellant melamine – decomposition into NH3, N2, H2O und CO2), form a high-carbon insulation layer. On account of its very low thermal conductivity, the insulation layer protects the substrate from a material-destroying increase in temperature. Through the further influence of temperature, a stable, inorganic insulation layer is finally formed, consisting mainly of titanium pyrophosphate. The mode of functioning of the fire protection coating is thus irreversible.

Fire protection

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building material class in accordance with EN 13501-1</td>
<td>E</td>
</tr>
<tr>
<td>Flame spread in accordance with ASTM-E84</td>
<td>FSI=0 / SDI=45</td>
</tr>
</tbody>
</table>

FSI= Flame Spread Index
SDI= Smoke Development Index

Water
FIRE FINISH CFP-SP WB is a fire protection coating for dry interiors / open halls and must not be exposed to permanent rain or water.

In the presence of water (e.g. flooding), the coating film becomes soft and shows a slight ammoniacal reaction (pH 7.6 – 8.6).

No substances hazardous to water are washed out.

Mechanical destruction
To repair surface damage and surface impairments follow the procedure described in the application guideline (www.us.hilti.com).

No effects on the environment caused by unforeseen mechanical destruction are known.

2.14 Re-use phase
On account of its share of organic products, FINISH CFP-SP WB has a substance-inherent energy content, which can be recovered in incineration plants.

Taking account of the carbon content of the coating, the steel coated with FINISH CFP-SP WB can be returned to the steel recycling process.

If the fire protection coating is to be deposited separately, it meets the required standards for disposal. On account of the thermoplastic properties of the fire protection coating, the latter can be softened with a hairdryer and then mechanically removed with a scraper.

2.15 Disposal
The following waste code numbers according to the European Waste Catalogue (EWC) must be taken into account:

a) Coated steel
EWC No. (recommended): 170405 Construction and demolition waste – Iron and steel

b) Solid product residues:
EWC No. (recommended): 080118 Waste from paint and varnish removal with the exception of that covered by 08 0117.

c) Liquid product residues:
EWC No. (recommended): 080120 Aqueous suspensions containing paint and varnish with the exception of those covered by 080119.

Packaging that cannot be cleaned is to be disposed of like the substance. Uncontaminated packaging can be recycled.
EWC No. (recommended): 150125 Packaging made of plastic

2.16 Further information
Further product information is available at:
www.us.hilti.com

3. LCA: Calculation rules

3.1 Declared Unit
The declared unit is a fire retardant with the designation
FIRE FINISH CFP-SP WB, with packaging. The calculated weight is one kilogram of the fire retardant.
The packaging is also included in the calculation. The following table depicts the data on the declared unit.

<table>
<thead>
<tr>
<th>Declared unit</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declared unit</td>
<td>1</td>
<td>kg</td>
</tr>
<tr>
<td>Conversion factor to 1 kg</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

3.2 System boundary
Type of EPD: cradle to plant gate The following information modules are reviewed in order to obtain an accurate record of the indicators and environmental impact of the declared unit. Information modules A1 to A3 outline the provision of raw materials, transportation to the production facility and the actual product production process. The preliminary products are procured mainly in Germany.

A total of three information modules are reviewed in order to obtain an accurate record of the indicators and environmental impact of the declared unit. Information modules A1 to A3 outline the provision of raw materials, transportation to the production facility and the actual product production process. The preliminary products are procured mainly in Germany.

Transportation is exclusively by truck. The following process diagram depicts the production process on which this is based.
3.3 Estimates and assumptions
In order to calculate the material provision of the titanium oxide, a titanium dioxide dataset is used, since there is no dataset for titanium oxide in the databases used. This is also applicable for the formula contents vinyl acetate copolymer (50% aqueous), which is shown by the dataset vinyl acetate. In the calculation of the mineral fibres, the main component, silicon oxide, is shown by the dataset silica sand. The following formula contents come under the cut-off criterion, because they are far below 5% of the product mass. Dispersing agents (<1%), thixotropic agents (<1%) and in-can preservative (<0.25%) are not included in the calculation of the life cycle assessment. It is also shown that these components cause no significant environmental pollution. No assumptions or restrictions were made for further formula contents. Since the transportation routes are mainly within Germany, a German mixture was used as a basis for the provision of the fuel.

3.4 Cut-off criteria
All of the information modules taken into consideration were included in the calculation in such detail that all requirements of EN 15804 were satisfied.

3.5 Background data
The data basis of the background data of the GaBi 6.0 databases, to which this study also refers, is documented under the following link: www.gabi-software.com/databases/gabi-databases/

3.6 Data quality
The background data sets used are no more than 10 years old. The life cycle inventory data of the manufacturer are from the year 2014 and correspond to the annual average. The technical background of the study corresponds to physical reality. Generic data are selected and used in accordance with CEN/TR 15941. The plausibility of the generic data is warranted.

3.7 Period under review
Data from 2014 are used as a basis.

3.8 Allocation
In the A3 information module under review, a co-product allocation takes place. For the waste for thermal recovery, electrical energy credits can be obtained in a waste incineration plant through the incineration. These are offset against the energy requirements of the German power mix within the A3 information module in a closed loop. Thermal energy credits from the waste incineration plant have not been taken into account here.

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 used background database has to be mentioned.

4. LCA: Scenarios and additional technical information
Since the information modules A1 to A3 are under review in this study, no disclosures are made about LCA scenarios or other technical information.
### 5. LCA: Results

#### DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

<table>
<thead>
<tr>
<th>PRODUCT STAGE</th>
<th>CONSTRUCTION STAGE</th>
<th>USE STAGE</th>
<th>END OF LIFE STAGE</th>
<th>BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw material supply</td>
<td>Transport</td>
<td>Manufacturing</td>
<td>Transport from the gate to the site</td>
<td>Assembly</td>
</tr>
<tr>
<td>A1</td>
<td>A2</td>
<td>A3</td>
<td>A4</td>
<td>A5</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>MND</td>
<td>MND</td>
</tr>
</tbody>
</table>

#### RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: FIRE FINISH CFP-SP WB [1kg]

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>A1-A3 (CML 2001 April 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depletion potential of the stratospheric ozone layer</td>
<td>kg CFC11 eq.</td>
<td>1.61E-7</td>
</tr>
<tr>
<td>Aciddification potential of land and water</td>
<td>kg SO2 eq.</td>
<td>9.62E-3</td>
</tr>
<tr>
<td>Eutrophication potential</td>
<td>kg (PO4)3- eq.</td>
<td>8.99E-3</td>
</tr>
<tr>
<td>Abiotic depletion potential for non-fossil resources</td>
<td>kg Sb eq.</td>
<td>1.18E-5</td>
</tr>
<tr>
<td>Abiotic depletion potential for fossil resources</td>
<td>[MJ]</td>
<td>31.57</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>A1-A3 (TRACI 2.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depletion potential of the stratospheric ozone layer</td>
<td>kg CFC11 eq.</td>
<td>1.88E-7</td>
</tr>
<tr>
<td>Aciddification potential of land and water</td>
<td>kg SO2 eq.</td>
<td>1.09E-2</td>
</tr>
<tr>
<td>Eutrophication potential</td>
<td>kg N eq.</td>
<td>1.29E-2</td>
</tr>
<tr>
<td>Ground-level smog formation potential</td>
<td>kg C3 eq.</td>
<td>1.07E-1</td>
</tr>
</tbody>
</table>

#### RESULTS OF THE LCA - RESOURCE USE: FIRE FINISH CFP-SP WB [1kg]

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>A1-A3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable primary energy as energy carrier</td>
<td>[MJ]</td>
<td>2.27E+0</td>
</tr>
<tr>
<td>Renewable primary energy resources as material utilization</td>
<td>[MJ]</td>
<td>0.00</td>
</tr>
<tr>
<td>Total use of renewable primary energy resources</td>
<td>[MJ]</td>
<td>2.27E+0</td>
</tr>
<tr>
<td>Non-renewable primary energy as energy carrier</td>
<td>[MJ]</td>
<td>2.88E+1</td>
</tr>
<tr>
<td>Non-renewable primary energy as material utilization</td>
<td>[MJ]</td>
<td>1.13E+1</td>
</tr>
<tr>
<td>Total use of non-renewable primary energy resources</td>
<td>[MJ]</td>
<td>3.39E+1</td>
</tr>
<tr>
<td>Use of secondary material</td>
<td>[kg]</td>
<td>0.00</td>
</tr>
<tr>
<td>Use of renewable secondary fuels</td>
<td>[MJ]</td>
<td>6.74E-5</td>
</tr>
<tr>
<td>Use of non-renewable secondary fuels</td>
<td>[MJ]</td>
<td>1.02E-3</td>
</tr>
<tr>
<td>Use of net fresh water</td>
<td>[m³]</td>
<td>0.03</td>
</tr>
</tbody>
</table>

#### RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: FIRE FINISH CFP-SP WB [1kg]

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>A1-A3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous waste disposed</td>
<td>[kg]</td>
<td>6.07E-7</td>
</tr>
<tr>
<td>Non-hazardous waste disposed</td>
<td>[kg]</td>
<td>4.31E-3</td>
</tr>
<tr>
<td>Radioactive waste disposed</td>
<td>[kg]</td>
<td>2.34E-4</td>
</tr>
<tr>
<td>Components for re-use</td>
<td>[kg]</td>
<td>0.00</td>
</tr>
<tr>
<td>Materials for recycling</td>
<td>[kg]</td>
<td>0.00</td>
</tr>
<tr>
<td>Materials for energy recovery</td>
<td>[kg]</td>
<td>0.00</td>
</tr>
<tr>
<td>Exported electrical energy</td>
<td>[MJ]</td>
<td>0.00</td>
</tr>
<tr>
<td>Exported thermal energy</td>
<td>[MJ]</td>
<td>0.00</td>
</tr>
</tbody>
</table>
6. LCA: Interpretation

The dominance analysis shows that the main cause of the environmental impacts and indicators can be found in information module A1. This shows the GWP - global warming potential - for material provision of approx. 95% with reference to all information modules.

If we look at the material provision for the fire retardant FIRE FINISH CFP-SP WB in detail, it becomes clear that four raw materials make a decisive contribution to the environmental impacts and indicators in question. The components melamine and titanium oxide account for a high proportion of the GWP - Global Warming Potential - of the product. At 70%, pentaerythritol is the exception in the EP - Eutrophication Potential. Furthermore, it contributes 30% to the ODP - Ozone Depletion Potential. Compared to the other components, the material titanium oxide is significantly involved in all environmental impacts and indicators; the average is approx. 37%.

7. Requisite evidence

VOC emissions

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEED v4 overview of results (14 days)</td>
<td>-</td>
<td>µg/m³</td>
</tr>
<tr>
<td>CMR-VOC</td>
<td>not verifiable</td>
<td>µg/m³</td>
</tr>
<tr>
<td>TVOC</td>
<td>519</td>
<td>µg/m³</td>
</tr>
<tr>
<td>VOC without NIK</td>
<td>34</td>
<td>µg/m³</td>
</tr>
<tr>
<td>R (dimensionless)</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>SVOC</td>
<td>not verifiable</td>
<td>µg/m³</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>&lt; 2</td>
<td>µg/m³</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>2</td>
<td>µg/m³</td>
</tr>
<tr>
<td>Carbon disulphide CS2</td>
<td>&lt; 1</td>
<td>µg/m³</td>
</tr>
</tbody>
</table>

Test reports

a) eco Institut – Attestation of 16th March 2016 of Test Report No. 50945-001 (II) and 50945-002 (II). The LEEDv4 test was carried out with 50 % of the maximum permissible applied quantity, in accordance with UL 263.

FIRE FINISH CFP-SP WB meets the requirements relating to a low VOC content in accordance with LEED credit EQ c4.2 (paints and coatings) and the requirements relating to low-emission paints and coatings in the “credit EQc2 of the LEEDv4 rating system”.

The mass of vinyl acetate copolymer, titanium oxide, pentaerythritol and melamine comes from the information on the formula. According to the manufacturer, it can be assumed that the accuracy of this information is high. This also results in adequate quality of the LCA results. The relevant datasets that are used for the material provision of the fire retardant are acceptably up to date. Since these datasets have a strong influence on the results, as shown by the dominance analysis, this also applies to the overall calculation.
8. References

Institut Bauen und Umwelt
Institut Bauen und Umwelt e.V., Berlin(pub.): Generation of Environmental Product Declarations (EPDs);
www.ibu-epd.de

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

EN 15804
EN 15804:2012-04+A1 2013: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

Product Category Rules for Building Products, Part B
Coatings with organic binding agents, 2013-10

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

GaBi 6.0 software for comprehensive analysis
http://www.gabi-software.com/deutsch/index/ (09.06.2016)

ecoinvent
http://www.ecoinvent.org (09.06.2016)

CML 2001 Apr. 2013
Environmental impact indicators
http://cml.leiden.edu/software/data-cmlia.html#downloads (09.06.2016)

CEN/TR 15941
CEN/TR 15941:2010-03: Sustainability of construction works — Environmental Product Declarations - Methods for selecting and using generic data; German version
CEN/TR 15941:2010


ECHA (European Chemical Agency) - list of substances:
Candidate List of Substances of Very High Concern for Authorization (published in accordance with Article 59(10) of the REACH Regulation)

EN13501-1:2010 Classification of construction products and methods by fire performance – Part 1: Classification with the results of tests on reaction to fire of construction products


UL 263 - 2011 Standard for Fire Tests of Building Construction and Materials

California Department of Public Health (CDPH) Standard Method v1.1-2010 (California Specification 01350 (02/2010))

South Coast Air Quality Management District (SCAQMD) Rule 1113


ISO 16000-3:2011 Indoor air -- Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air -- Active sampling method

Notes on the work area of reactive fire protection systems on steel components of the DIBt (April 2014)

LEED v4: Leadership in Energy and Environmental Design – Version 4


Ordinance governing the European Waste Catalogue (List of wastes - AVV) - Issue date: 10.12.2001

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Test Report No. 50945-001 (II) and 50945-002 (II) of 16.03.2016