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The Norwegian EPD Foundation

Institut Bauen und Umwelt e.V.

ENVIRONMENTAL PRODUCT DECLARATION

in accordance with ISO 14025, ISO 21930 and EN 15804

Owner of the Declaration:	Sika Deutschland GmbH
Program operator:	IBU - Institut Bauen und Umwelt e.V.
Publisher:	The Norwegian EPD Foundation
Declaration number:	EPD-SIK-20140215-IBG1-EN
Registration number:	NEPD-343-232-EN
Issue date:	14.11.2014
Valid to:	13.11.2019

Flooring adhesives:
SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50 Parquet, SikaBond AT-80, SikaBond AT-82, SikaBond T-40

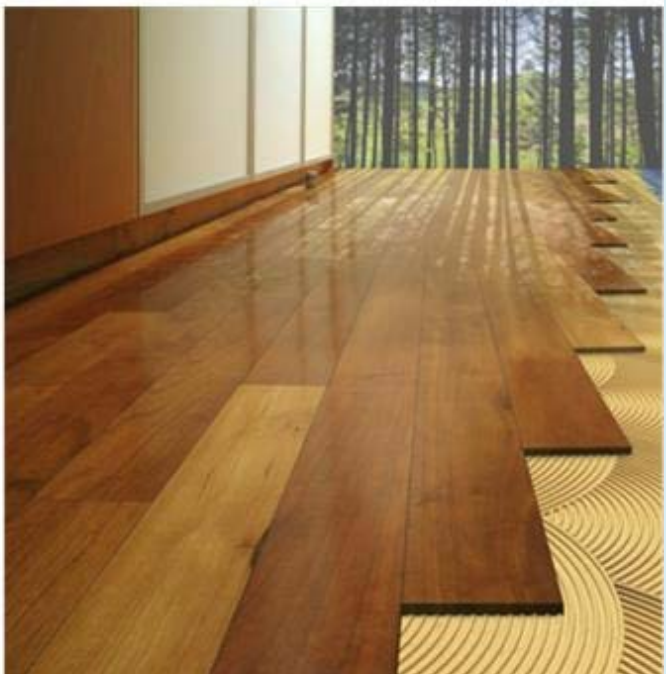
Sika Deutschland GmbH

www.epd-norge.no



Sika®
BUILDING TRUST





1. General Information

Sika Deutschland GmbH

SikaBond-54 Parquet
SikaBond-52 Parquet
SikaBond-95 Parquet
SikaBond-50 Parquet
SikaBond AT-80, SikaBond AT-82
SikaBond T-40

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

Owner of the Declaration
Sika Deutschland GmbH
Kornwestheimer Straße 103-107
D-70439 Stuttgart

Declaration number
EPD-SIK-20140215-IBG1-EN

Declared product / Declared unit
1 kg reaction resin based on polyurethane or SMP, filled or aqueous, solvent-free; density 1.25 -1.65 g/cm³

This Declaration is based on the Product Category Rules:
Reaction resin products, 07.2014
(PCR tested and approved by the SVR)

Scope:
This validated declaration entitles the use of the seal of the Institut Bauen und Umwelt e.V. It applies exclusively to the stated product groups for plants in Germany and is valid for five years following the date of issue. This is a collective EPD in which the life cycle assessment has been calculated for the product within a group that represents the highest environmental impact within this group. A list of association members can be found on the website of the association.

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.

Issue date
14.11.2014

Valid to
13.11.2019

Verification

The CEN Norm /EN 15804/ serves as the core PCR

Independent verification of the declaration according to /ISO 14025/

☐ internally ☒ externally

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

Dr. Burkhart Lehmann
(Managing Director IBU)

Matthias Schulz
(Independent verifier appointed by SVR)

2. Product

2.1 Product description

SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50 Parquet, SikaBond AT-80, SikaBond AT-82 and SikaBond T-40 (hereinafter called *SikaBond adhesives*) are polyurethane- or SMP-based reactive resins, filled and solvent-free.
These single-component reactive resins are manufactured using polyols (based on mineral oil or renewable raw materials) and isocyanates.
Reactive resins based on silane-modified polymers (SMP) are usually manufactured as single-component products from polyols and alkoxysilane preliminary stages.
The products fulfil manifold and often specific tasks in the construction, furnishing and repair of buildings.

The product in the group displaying the greatest environmental impact was selected as the representative product for calculating the Life Cycle Assessment.

2.2 Application

Module 1:
Adhesives for parquet and floor coverings
Parquet adhesive in accordance with /DIN EN 14293/ for wood and parquet floors.

2.3 Technical Data

Module 1:

Reactive resins as adhesives for parquet and floor coverings.

The minimum requirements of /DIN EN 14293:2006-10/

Technical data

Name	Value	Unit
Density	1.25 - 1.65	kg/m^3
Tensile shear strength as per DIN EN 14293	0.4 - 4	N/mm^2
Tensile bond strength as per DIN EN 14293	not relevant	N/mm^2

2.4 Placing on the market / Application rules

Module 1:

Adhesives for parquet and floor coverings

/DIN 18356/ and /DIN 18365/ or comparable national or international standards (see CEN/TS 14472:2003-10, Parts 1-4 and CEN/TS 15717:2008-07) apply to carrying out parquet and flooring work.

2.5 Delivery status

Adhesives in containers made of tinplate or plastic and poly-tube bags made of foil-clad materials. Typical container sizes contain 290 or 300 ml (cartridges), 600 or 1800 ml (poly-tube bags), and 5 or 10 l (buckets) of material.

A ratio of 1:2 for tinplate to plastic packaging was assumed for the Life Cycle Assessment.

2.6 Base materials / Ancillary materials

SikaBond adhesives, polyurethane- or SMP-based single-component reactive resins, filled and solvent-free, cure in the presence of moisture without being mixed with additional resin components and consist of pre-polymers based on MDI, TDI, HDI, IPDI or such with alkoxysilane end groups.

On average, the products covered by this EPD contain the following base materials and auxiliaries in the proportions indicated:

Resin components: 10-40 %
Curing components: 0-5 %
Plasticiser: 15-35 %
Fillers: 30-60 %
Other: 0-10 %

The products contain no substances on the candidate list of materials of particularly high concern for inclusion in Annex XIV of the REACH Regulation. More detailed information is available from the respective manufacturers (e.g. product data sheets, safety data sheets).

2.7 Manufacture

The formulated product components are typically mixed from the ingredients in batches and filled into containers for delivery, whereby quality standards and environmental standards in accordance with /DIN ISO 9001/ and provisions outlined in relevant regulations such as the Industrial Safety Regulation and Federal Pollution Control Act are observed.

2.8 Environment and health during manufacturing

In general, no environmental protection measures beyond those required by law are necessary.

2.9 Product processing/Installation

SikaBond adhesives are polyurethane- or SMP-based reactive resins, filled and solvent-free, and are applied using a trowel or spatula or other suitable application instrument.

Appropriate health and safety measures are to be implemented and consistently observed in accordance with the information provided in the safety data sheet and with the conditions on site.

On account of their composition, solvent-free polyurethane products bear the GISCODE/Gisbau product code RU 1 or PU 40. Silane-modified products bear the code RS 10.

2.10 Packaging

A detailed description of packaging is provided in Section 2.5. Emptied containers and clean foils can be recycled.

Wooden reusable pallets are taken back by the building material suppliers (German deposit system for reusable pallets), who return them to the building product manufacturers, who in turn reuse them in their production process.

2.11 Condition of use

During the use phase, polyurethane- or SMP-based reactive resins, filled and solvent-free, are cured and essentially comprise an inert three-dimensional matrix. They are long-lasting products used in buildings as adhesives, coatings or sealants.

2.12 Environment and health during use

Option 1

Products for use in non-habitable rooms

During use, filled and solvent-free polyurethane- or SMP-based reactive resins lose their reactive capacity and are inert.

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

Option 2

Products for use in habitable rooms

When used in habitable indoor rooms, evidence of the emissions behaviour of the products may be required. See Chapter 7 for more information on the emissions behaviour of SikaBond adhesives.

2.13 Reference service life

Filled and solvent-free polyurethane- or SMP-based reactive resins fulfil a variety of often specific tasks in the construction and refurbishment of buildings. They decisively improve the usability of buildings and significantly extend their original service lives. The anticipated reference service life depends on the type of use, the specific installation situation and the exposure of the product. It can be influenced by weathering as well as mechanical or chemical exposure.

2.14 Extraordinary effects

Fire

Even without any special flame retardant, polyurethane-based reactive resins meet or exceed the requirements of /DIN EN 13501-1/ standard for fire classes E and Efl. In consideration of the amounts applied, they have only a subordinate influence on the fire performance characteristics of the building in which

they are installed. As networked polyurethane resins do not melt or drip, the resins do not contribute to the spread of fire.

Water
Polyurethane- or SMP-based reactive resins, filled or aqueous/solvent-free, are chemically inert and insoluble in water. They are often used to protect building structures from damaging water ingress or the effects of flooding.

Mechanical destruction
The mechanical destruction of polyurethane- or SMP-based reactive resins does not lead to any decomposition products that are hazardous to the environment or health.

2.15 Re-use phase
According to present knowledge, generally no environmentally-hazardous effects are to be anticipated when dismantling and recycling or e.g. landfilling materials to which hardened polyurethane or SMP products adhere.
If the polyurethane or SMP systems can be removed from the building materials with no great effort, thermal recovery can be a practical option due to calorific value.

2.16 Disposal
Non-useable product residue should be allowed to harden. Hardened product residue is not special waste. Non-hardened product residue is special waste. Empty, dried containers (free of drops and scraped clean) are to be collected for recycling. Product residue is to be properly disposed of in accordance with the safety data sheet and local law.
These EWC/AVV waste codes can apply:

Hardened product residue:
080410 Adhesive and sealant compound waste other than those covered by 080409.

2.17 Further information
Further information can be found in the Product Data Sheets or the Safety Data Sheets issued by the Sika companies in each country. These are available through the websites of the local Sika companies or on request. Useful technical information is also available through the websites of the professional associations. For example, TKB data sheets are available at www.klebstoffe.com and information provided by *Deutsche Bauchemie* is available at www.deutschebauchemie.de.

3. LCA: Calculation rules

3.1 Declared Unit
This collective EPD refers to the declared unit of 1 kg of reactive resin product. The amount of SikaBond actually applied depends on the specific flooring installation job.
An LCA for filled, solvent-free, PU-based reactive resin products containing polyols has been calculated in this EPD.
The product with the highest environmental impact in the product group has been declared.

Declared unit

Name	Value	Unit
Declared unit	1	kg
Conversion factor to 1 kg	1	-

3.2 System boundary
Modules A1/A2/A3, A4, A5 and D are taken into account in the LCA:
- A1 Manufacture of preliminary products
- A2 Transport to plant
- A3 Production including provision of energy, manufacture of packaging, auxiliaries and consumables, waste treatment)
- A4 Transport to site
- A5 Installation (disposal of packaging and emissions during installation)
- D Credits from incineration of packaging materials and recycling the metal container

This Declaration is therefore from "cradle to plant gate, with options".

3.3 Estimates and assumptions
When no specific GaBi processes were available for the individual recipe ingredients of the formulae, these were estimated on the basis of information provided by the manufacturer or literature.

3.4 Cut-off criteria
No cut-off criteria were applied for calculating the LCA. All raw materials submitted by the associations for the formulae were taken into account.
The manufacture of machinery, plants and other infrastructure required for production of the products under review was disregarded in this LCA.

3.5 Background data
Data from the GaBi 5 database serves as background data. Where no background data was available, it was supplemented by manufacturer information and literature.

3.6 Data quality
Representative products were used for this collective EPD and the product in a group displaying the highest environmental impact was used for calculating the LCA results. The data sets are no more than 7 years old. The data were taken from the GaBi 5:2010 databases and are therefore consistent.

3.7 Period under review
The period under review comprises the annual production for the year 2011.

3.8 Allocation
No allocations were applied for production. A multi-input allocation with a credit for electricity and thermal energy was used for incineration of packaging using the simple credit method. The credits achieved through packaging disposal are accounted for in Module D.

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.

4. LCA: Scenarios and additional technical information

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 in case modules are not declared (MND).

Transport to Site (A4)

Name	Value	Unit
Litres of fuel	0.0016	l/100km
Transport distance	500	km
Capacity utilisation (including empty runs)	85	%
Gross density of products transported	900 - 1300	kg/m^3
Capacity utilisation volume factor	100	-

Installation in building (A5)

Name	Value	Unit
Material loss	0.01	kg

5. LCA: Results

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

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	MND	MND	MND	MND	MND	MND	MND	MND	MND	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50Parquet, SikaBond AT-80, SikaBond AT-82, SikaBond T-40

Parameter	Unit	A1-A3	A4	A5	D
Global warming potential	[kg CO_2-Eq.]	4.66E+0	2.58E-2	1.25E-1	-1.25E-1
Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3.40E-8	1.38E-12	4.50E-12	-1.34E-10
Acidification potential of land and water	[kg SO_2-Eq.]	1.43E-2	1.64E-4	1.45E-5	-3.15E-4
Eutrophication potential	[kg $(PO_4)^{3-}$-Eq.]	2.67E-3	4.06E-5	2.94E-6	-2.77E-5
Formation potential of tropospheric ozone photochemical oxidants	[kg ethene-Eq.]	2.50E-3	-7.03E-5	1.30E-6	-4.39E-5
Abiotic depletion potential for non-fossil resources	[kg Sb-Eq.]	2.55E-5	1.18E-9	1.82E-9	-6.35E-9
Abiotic depletion potential for fossil resources	[MJ]	8.70E+1	3.56E-1	2.96E-2	-1.66E+0

RESULTS OF THE LCA - RESOURCE USE: SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50Parquet, SikaBond AT-80, SikaBond AT-82, SikaBond T-40

Parameter	Unit	A1-A3	A4	A5	D
Renewable primary energy as energy carrier	[MJ]	3.18E+0	-	-	-
Renewable primary energy resources as material utilization	[MJ]	0.00E+0	-	-	-
Total use of renewable primary energy resources	[MJ]	3.18E+0	1.42E-2	2.19E-3	-6.74E-2
Non-renewable primary energy as energy carrier	[MJ]	6.94E+1	-	-	-
Non-renewable primary energy as material utilization	[MJ]	1.98E+1	-	-	-
Total use of non-renewable primary energy resources	[MJ]	8.92E+1	3.56E-1	2.96E-2	-1.66E+0
Use of secondary material	[kg]	0.00E+0	-	-	-
Use of renewable secondary fuels	[MJ]	1.50E-3	3.01E-6	4.01E-7	7.66E-4
Use of non-renewable secondary fuels	[MJ]	1.54E-2	3.16E-5	4.20E-6	8.07E-3
Use of net fresh water	[m^3]	2.65E+0	1.32E-3	2.53E-3	-6.09E-2

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50Parquet, SikaBond AT-80, SikaBond AT-82, SikaBond T-40

Parameter	Unit	A1-A3	A4	A5	D
Hazardous waste disposed	[kg]	-	-	-	-
Non-hazardous waste disposed	[kg]	5.88E+0	1.88E-3	5.94E-3	-6.31E-1
Radioactive waste disposed	[kg]	1.94E-3	5.03E-7	1.52E-6	-3.57E-5
Components for re-use	[kg]	-	-	-	-
Materials for recycling	[kg]	-	-	-	-
Materials for energy recovery	[kg]	-	-	-	-
Exported electrical energy	[MJ]	-	-	1.77E-1	-
Exported thermal energy	[MJ]	-	-	4.27E-1	-

"Hazardous waste for landfilling" indicator: No Declaration in accordance with the Expert Committee (SVA) decision of 4.10.2012

6. LCA: Interpretation

Non-renewable primary energy (PENRT) requirements are clearly dominated by manufacture of the preliminary products (Module A1) (>90%). This high volume is dominated by the energy-intensive production of preliminary products based on crude oil. Filler materials account for only a small portion of PENRT.

At approx. 3%, the share of total energy requirements required by **renewable primary energy (PERT)** is low. This low contribution is primarily attributable to shares of renewable energy in the German power mix as well as the wooden pallets used for packaging.

At 90%, the main influential factor for the **Global Warming Potential (GWP)** is the provision of preliminary products. Approx. 5% of greenhouse gases are emitted during production (A3), whereby production of packaging plays the greatest role. At more than 90%, carbon dioxide emissions are the main cause of the GWP.

Ozone Depletion Potential (ODP) is dominated by the production of preliminary products, accounting for 90%. Depending on their content in recipes, pigment (TiO2) and zeolite production can also make a measurable contribution to the ODP. Module A3, i.e. manufacture of reactive resins, also has a significant influence on the ODP. None of the other modules are of relevance for the Ozone Depletion Potential. In both cases, the main drivers are halogenated organic emissions from the German power mix (especially R114).

The **Acidification Potential (AP)** is primarily caused by nitric oxides and SO2 which – as for all other modules – are primarily incurred during manufacture of the preliminary products (A1) and the end products (A3). Module A3 also has a measurable influence on the AP, which is particularly attributable to the manufacture of packaging materials.

The **Eutrophication Potential (EP)** is dominated by more than 90% by the manufacture of crude-oil-based preliminary products. In Module A3, which has only a minor influence on the EP, most of the emissions are attributable to the manufacture of packaging as well as electricity consumption. The EP is primarily caused by various nitric oxide emissions into atmosphere and acid emissions into water.

Accounting for >85%, the **Photochemical Ozone Creation Potential (POCP)** is dominated by the manufacture of crude-oil-based preliminary products.

7. Requisite evidence

7.1 VOC evidence

Measuring method: GEV test method for determining the emissions of volatile organic compounds from building products in accordance with DIN EN ISO 16000 Parts 3, 6, 9 and 11 in a test chamber. Testing for CMR substances and TVOC/TSVOC after 3 and 28 days.

Results: The products *SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50 Parquet and SikaBond T-40* meet the requirements of the emissions class EMICODE EC 1 PLUS “very low emissions PLUS”.
The product *SikaBond AT-80* meets the requirements of the emissions class EMICODE EC 1 “very low emissions”.

Classifiation EMICODE (limit values)

$\mu g/m^3$	EC1 PLUS	EC1
TVOC (C_6-C_{16}) (after 3 / 28 d)	750 / 60	1000 / 100
TSVOC ($C1_6$-C_{22}) (after 28 d)	40	50
C1, C2 substances * Total after 3d ** for each material after 28d	10* / 1**	10* / 1**
Total formaldehyde / acetaldehyde [ppb] (after 3d)	50/50	50/50
Total VOC without NIK and non-identifiable materials (after 28d)	40	-
R-value (after 28d)	1	-

8. References

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

General principles
for the EPD range of Institut Bauen und Umwelt e.V. (IBU), 2013/04
www.bau-umwelt.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

PCR 2011, Part A
Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Building Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation rules for the Life Cycle Assessment and requirements on the background report, 2011-07 http://www.bau-umwelt.de

DIN EN 14293:
Adhesives – Adhesives for bonding parquet to a sub-floor – Test methods and minimum requirements; German version EN 14293:2006

DIN EN 13501-1:
Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests; German version EN 135011:2007 + A1:2009.

DIN CEN/TS 14472
Resilient, textile and laminate floor coverings – Design, preparation and installation – Part 1: General; German version CEN/TS 14472-1:2003; Part 2: Textile floor coverings; German version CEN/TS 14472-2:2003; Part 3: Laminate floor coverings; German version CEN/TS 14472-3:2003; Part 4: Resilient floor coverings; German version CEN/TS 14472-4:2003.

DIN CEN/TS 15717
Parquet flooring – General guideline for installation; German version CEN/TS 15717:2008

DIN EN ISO 16000-11:
Indoor air – Part 11: Determination of the emission of volatile organic compounds from building products and furnishings – Sampling, storage of samples and preparation of test specimens (ISO 16000-11:2006); German version EN ISO 16000-11:2006

DIN 18356
German construction tendering and contract regulations – Part C: General technical contract conditions for construction (ATV) – Parquet flooring

DIN 18365
German construction tendering and contract regulations – Part C: General technical contract conditions for construction (ATV) – Floor coverings

GISCODEs/Product Codes
Based on the idea of grouping products that pose similar health hazards and consequently require identical protective measures and usage rules. This reduces the myriad chemical products to a few product groups. The coding, stated in the manufacturer's information (safety data sheets, technical data sheets) and displayed on the container labels, clearly allocates the product to a product group.

GaBi 5 2010
GaBi 5: Software and data base for comprehensive analysis. LBP, University of Stuttgart and PE International, 2011.

GaBi 5 2010b
GaBi 5: Documentation of GaBi 5 data sets from the data base for comprehensive analysis LBP, University of Stuttgart and PE International, 2011
http://documentation.gabi-Software

www.deutsche-bauchemie.de
Reach, Annex 14
SMP= Silane-modified polymers
MDI= Methylene diphenyl diisocyanate
TDI= Toluene diisocyanate
HDI= Hexamethylene diisocyanate
IPDI= Isophorone diisocyanate

EMICODE EC 1 and GEV
www.emicode.com

AFFSET-VOC
Émissions dans l´air intérieur
Mandatory declaration of VOC emissions class.
A French regulation published 25 March 2011 and enacted 13 May 2011. It requires labelling of the emissions class of all construction products, floor and wall coverings, paints and varnishes for interior use in in France. This applies to:
- Walls, ceilings, floor coverings and coatings,
- Panels for partitions and suspended ceilings,
- Insulation materials,
- Doors and windows,
- All products necessary for installing or applying the aforementioned products.

EAK/AVV/Waste Catalogue
Scope of application:
This regulation sets forth the following:
1. the designation of wastes,
2. the classification of wastes by hazard.

REACH
The **Regulation (EC) No. 1907/2006 (REACH Regulation)** is an EU chemical regulation that went into force on 1 June 2007. REACH stands for **R**egistration, **E**valuation, **A**uthorization and Restriction of **Ch**emicals. As an EU regulation, REACH is equally and directly applicable in all member states. REACH profoundly harmonises and simplifies previous chemical legislation.

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ANNEX 1

ANNEX 1: Self declaration from EPD owner

Specific Norwegian requirements

1 Applied electricity data set used in the manufacturing phase

The electricity mix for the electricity used in manufacturing (A3) is the electricity grid mix

<0.165 kg CO_2 eqv/MJ> (German Power Mix GaBi 2014)

2 Content of dangerous substances

X The product contains no substances given by the REACH Candidate list or the Norwegian priority list.

☐ The product contains substances that are less than 0.1% by weight given by the REACH Candidate or the Norwegian priority list.

☐ The product contains dangerous substances more than 0.1% by weight given in the REACH candidate list or the Norwegian Priority List, concentrations is given in the EPD:

Dangerous substances from the REACH candidate list or the Norwegian Priority List	CAS No.	Quantity (concentration, wt%/FU(DU)).
Substance 1		
Substance n		

3 Transport from the place of manufacture to a central warehouse

Transport distance, and CO_2-eqv./DU from transport of the product from factory gate to central warehouse in Oslo shall be given. The following table shall be included in the EPD:

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy use	Unit	Value (l/t)	CO2-eqv./DU
Boat	50	Truck 16 ton	331				0,047 kg CO_2 eqv. (1 kg sealant)
Truck	50	Truck 16 tonn	1480	0,019914	l/tkm	29,47	0,129 kg CO_2 eqv. (1 kg sealant)

4 Impact on the indoor environment

X Indoor air emission testing has been performed; specify test method and reference;

Parquet bonding adhesives:

Emicode EC-1 PLUS:	SikaBond-54 Parquet, SikaBond-52 Parquet, SikaBond-95 Parquet, SikaBond-50 Parquet, SikaBond T-40.
Emicode EC-1:	SikaBond AT-80

☐ No test has being performed
☐ Not relevant; specify _____