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Institut Bauen und Umwelt e.V.

ECO PLATFORM EPD VERIFIED

Owner of declaration:	Unilin bvba
Programme operator:	Institut Bauen und Umwelt e.V. (IBU)
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3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025** & **EN 15804**

1. General Information

UNILIN Division Flooring	Direct Pressure Laminate floor coverings
Programme holder IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany	**Owner of the Declaration** UNILIN Division Flooring Ooigemstraat 3 8710 Wielsbeke Belgium
Declaration number EPD-UNI-20170035-IBD1-EN	**Declared product / Declared unit** 1m² of DPL floor covering with a thickness of 7mm.
This Declaration is based on the Product Category Rules: Floor coverings, 07.2016 (PCR tested and approved by the SVR)	**Scope:** The laminate floor covering described in this EPD has a thickness of 7 mm and meets the requirements of the EN14041:2006 and the use classes 31-34 according to /EN 13329/ and EN ISO 10874/. In order to enable the user of the EPD to calculate the LCA results for different thicknesses and use classes, the EPD contains the respective calculation rules. The products are available under 4 brandnames: Unilin / Pergo / Quick-Step / Balterio. 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 19/10/2017	**Verification** The CEN Norm /EN 15804/ serves as the core PCR Independent verification of the declaration according to /ISO 14025/ ☐ internally ☒ externally
Valid to 18/10/2023	
Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)	
Dr. Burkhart Lehmann (Managing Director IBU)	Christina Bocher (Independent verifier appointed by SVR)

2. Product

2.1 Product description / Product definition

DPL (Direct Pressure Laminate) floor coverings described in this EPD are produced by UNILIN division Flooring. The floor coverings meet the requirements of /EN 13329/.
DPL laminate floorings are made up of a number of layers. On the top side, there is a decor with a transparent, wear-resistant contact surface; in the middle, there is a core layer made of high density wood fibre and on the back side, there is a stabilizing layer to guarantee floor stability. The decorative paper of DPL floor covering can be printed with any design and gives the floor its individual appearance.

For placing on the market in the EU/EFTA (with the exception of Switzerland) the Regulation (EU) No 305/211 applies. The products need a Declaration of Performance under consideration of /EN14041:2006/ and all have a CE-marking.

2.2 Application

The laminate floor covering as described in this EPD is used as a floating modular flooring system for indoor use and meets the requirements of the use classes: 31-34 according to /EN 13329/ and / EN ISO 10874/.

2.3 Technical Data

Constructional data

Name	Value	Unit
Grammage	6400	g/m²
Abrasion Class - /EN 13329/	AC4	-
Product Form	panel	-
Thickness of the element - /EN 13329/	7	mm
Length of the surface layer - /EN 13329/	300 - 2500	mm
Width of the surface layer - /EN 13329/	90 - 600	mm
Density - /EN 323/	>900	kg/m³

2.4 Delivery status

Typical standard dimensions are as follows (length - width - thickness)

- 1200mm x 190mm x 7mm
- 1380mm x 156mm x 8mm

2.5 Base materials / Ancillary materials

The composition of a DPL floor covering in mass % is:

- 90-96 % High Density Fibre board (HDF)
- 2-4 % paper
- 4-6 % resin
- <1 % corundum

HDF (high density fibreboard)
The core board is an HDF board >850kg/m³ composed of wood fibres and a thermosetting resin, mainly MUF (melamine-urea-formaldehyde) resin.

Paper
The renewable resource wood is the main raw material for paper production.

Resins
The used amino resins are melamine-formaldehyde (95%) and urea formaldehyde (5%) resins. Amino resins are thermosetting resins that are cured using heat and pressure.

Corundum
Bauxite is the mineral resource of corundum. By using aluminium oxide (Al2O3) the surface layer of a laminate flooring obtains abrasion and wear resistance.

DPL floor coverings do not contain substances that are listed in the "Candidate List of Substances of Very High Concern for Authorisation" /REACH/.

Factors for different thicknesses
DPL laminate floor coverings are available in different thicknesses. In order to enable the user of the EPD to calculate the results for different thicknesses and use classes the factors in the following table can be used for the calculation. For A1-A3, A4, A5, B2, C3 and D the LCA results of the declared product (thickness 7 mm) in chapter 5 have to be multiplied with these factors.

Param-eter	Unit	A1-A3		A4	A5	B2	C3		D	
		8 mm	9.5 mm	8 mm & 9.5 mm	8 mm & 9.5 mm	8 mm & 9.5 mm	8 mm	9.5 mm	8 mm	9.5 mm
GWP	[kg CO_2-eq.]	0.98	0.96	1.2	1.0	1.0	1.30	1.35	1.31	1.36
ODP	[kg CFC11-eq.]	1.26	1.31	1.2	1.0	1.0	-	-	1.28	1.33
AP	[kg SO_2-eq.]	1.26	1.31	1.2	1.0	1.0	-	-	1.30	1.35
EP	[kg PO_4^{3-}- eq.]	1.34	1.41	1.2	1.0	1.0	-	-	1.23	1.28
POCP	[kg Ethen eq.]	1.23	1.27	1.2	1.0	1.0	-	-	1.29	1.34
ADPE	[kg Sb eq.]	1.42	1.50	1.2	1.0	1.0	-	-	1.28	1.33
ADPF	[MJ]	1.38	1.46	1.2	1.0	1.0	-	-	1.28	1.33
PERT	[MJ]	1.25	1.30	1.2	1.0	1.0	-	-	1.28	1.33
PENRT	[MJ]	1.37	1.44	1.2	1.0	1.0	-	-	1.28	1.33

Figure 1: Factors to get the results for 8 mm & 9.5 mm (weighted average of Belgian and Russian production)

Parameter	Unit	A1-A3	A4	A5	B2	C3	D
		To get 12 mm, only Belgian production					
GWP	[kg CO_2-eq.]	1.09	0.88	0.87	1.00	1.72	1.69
ODP	[kg CFC11-eq.]	1.84	0.88	0.87	1.00	-	1.75
AP	[kg SO_2-eq.]	1.61	0.88	0.91	1.00	-	1.80
EP	[kg PO_4^{3-}- eq.]	1.87	0.88	0.87	1.00	-	1.61
POCP	[kg Ethen eq.]	1.62	0.88	0.88	1.00	-	1.77
ADPE	[kg Sb eq.]	1.99	0.88	0.94	1.00	-	1.75
ADPF	[MJ]	1.98	0.88	0.90	1.00	-	1.75
PERT	[MJ]	1.65	0.88	0.90	1.00	-	1.75
PENRT	[MJ]	1.97	0.88	0.90	1.00	-	1.75

Figure 2: Factors to get the results for 12 mm (Belgian production)

2.6 Manufacture

Impregnation & Resin production:
The resin production is included in the LCA; it is produced by UNILIN bvba, division Flooring. The different components are mixed together and used to impregnate the different paper layers (overlay, décor and backing).

Pressing:
The resin impregnated papers (overlay, décor and backing) are pressed under heat with the HDF core board in a single stage process. In this process the resin cures and the different layers are laminated together.

Cutting and milling:
The pressed boards are cut to size and equipped with a tongue and-groove assembly system. Eventually the boards are provided with a bevel.

Packaging:
The laminate floorings are unit-packed and edge-protected using ribbed cardboard and shrink-wrapped in foil.

Laminate floor coverings are intended for use as floor covering within a building. According to the area of application floor coverings are classified in use classes.

2.7 Environment and health during manufacturing

The production conditions do not demand any special health protection measures over and beyond the legal requirements.

Water: Production related waste water from the HDF production process is purified in a waste water treatment plant. The use of water in the DPL flooring production process is negligible. Where water is needed, it either evaporates or is re-used in the internal water loop.

Air: The constitutional valid regulations are observed. The emissions to air are far below the legally required thresholds.

Soil: There is no impact on soil.

2.8 Product processing/Installation

UNILIN Laminate floor coverings are generally installed floating. This means that the floor covering is not fixed to the sub-floor using glue, nails etc. The floor covering panels are mainly mechanically assembled glue-less by means of tongue and groove. Underlay material is needed when installing laminate floor coverings in order to achieve a levelling effect, thermal or acoustical insulation or protection against rising dampness.

2.9 Packaging

Packaging requirements according to /EN 13329/: Laminate floor coverings are delivered in packages designed to protect the corners, edges and surfaces of the product, under normal conditions of transport and handling. Laminate flooring is accordingly unit-packed and edge-protected using ribbed cardboard and shrink-wrapped in foil. Pallets are finally used for the delivery. The pallets can also be reused.

2.10 Condition of use

The substantial composition during the use phase refers to the composition during the manufacturing. The conditions of use are described in the producer's documentation.

2.11 Environment and health during use

Environmental protection: When the products are used as designated and according the current state of knowledge, there are no hazards for water, air and soil. Health protection: When used normally and in accordance with the designated purpose, no health risks or restrictions are to be anticipated by UNILIN DPL floor coverings. This is in line with the current state of knowledge.

2.12 Reference service life

The estimated service life of floor covering depends e.g. on the type of floor covering and the area of application, the users themselves and the maintenance of the product. Comparisons of different floor coverings are only allowed, if these parameters are considered in a consistent way. A minimum service life of 20 years can be assumed /BBSR/, technical service life can be considerably longer. The use stage is declared in this EPD for a one year usage.

Influences on ageing when applied in accordance with the rules of technology.

2.13 Extraordinary effects

Fire

The reaction to fire is determined according to /EN 13501-1/. The class for laminate floors produced by UNILIN bvba-division Flooring, in combination with all underlays of the sales program is Cfl-s1. The higher classes 33 and 34 in the Pergo range are Bfl-s1.

Fire protection

Name	Value
Building material class	Cfl or Bfl
Smoke gas development	s1
Burning droplets	-

Water

In case of a leak or a flood where the flooring has been soaked for a longer period of time (days) the flooring will most probably be considered a total loss. In case of short or shorter time of exposure and after drying, no visible damage may be expected. If the water came under the floorcovering (floating installation) it may be necessary to unclick the panels and let them dry. The subfloor will most probably also be wet and should be given the time to come to equilibrium moisture content before re-installation of the dry panels.

Mechanical destruction

Small or smaller damages in the flooring surface can be repaired by using coloured solvent-free melt waxes. In case of more severe damage the damaged panels can be replaced. The damaged panels go into the normal end-of-life treatment.

2.14 Re-use phase

A laminate floor covering which is not at the end-of-life stage may be uninstalled and re-used as a floor covering. Post-consumer laminate floor covering waste can be recycled as wood based products. When appropriate recycling facilities do not exist, laminate floor coverings shall be thermally recycled.

2.15 Disposal

Post-installation and post-consumer flooring panels are considered as wood waste. The European Waste Code /EWC/ is 030105. It can be disposed in any regulated municipal waste collection point as wood waste.

2.16 Further information

All information about the product composition, technical performance, instructions for installation and maintenance, precautionary instructions for use, CE-marking and relevant DOP (declaration of performance) documents, are available either in the packs or can be found on the homepages www.quick-step.com or www.pergo.com or can be requested at Unilin bvba division flooring www.unilin.com or info@unilin.com.

3. LCA: Calculation rules

3.1 Declared Unit

The declared unit is 1 m² laminate flooring with a thickness of 7 mm and a weight of 6.4 kg. It has the use class 32 as this is the most common product.

Declared unit

Name	Value	Unit
Declared unit	1	m^2
Grammage	6.4	kg/m^2
layer thickeness	0.007	m
Conversion factor to 1 kg (kg/m^2)	6.4	-

3.2 System boundary

This is an EPD of the type 1b) Declaration of a specific product from several of the manufacture's plants.
The **production stage** (A1-A3) includes all relevant processes from "cradle-to-factory gate" within the cut-off rules. This includes for example the extraction and manufacture of all raw materials and their delivery to the production site.
The **constructional process stage** includes the delivery of the parquet floor covering to the point of installation (A4).
A5 is declared, but only includes the treatment of packaging waste. Underlayment and glue in case of a glued down installation is not included.

The **use stage** (B2) includes the cleaning of the laminate floor covering for 1 year. The cleaning frequencies are described in chapter 4. For the calculation of an average cleaning scenario, 90% domestic and 10% commercial level of use is assumed, according to the market shares of distribution. Provision of water, cleaning agent and electricity for the cleaning of the floor covering is considered, including waste water treatment.

In module C3 only the release of biotic CO2 is declared in order to guarantee carbon neutrality within the product system.

Module D includes benefits from all net flows in the end-of-life stage that leave the product boundary system after having passed the end-of-waste state. It is assumed that post-consumer flooring waste reaches the end-of-waste state after dismantling from the building and is 100% incinerated in a European biomass power plant. Loads from material incineration and resulted energy credits are declared within module D.

3.3 Estimates and assumptions

Specific life cycle inventories are available for nearly all input materials. Laminate floor covering elements reach the end-of waste state after being dismantled in a building. It is assumed that post-consumer laminate floor coverings are 100% incinerated in a European biomass power plant.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, utilised thermal energy, and electric power consumption using best available LCI datasets. Thus material and energy flows contributing less than 1% of mass or energy are also considered. The only exception are wooden pallets used as packaging materials. The wood pallets are not considered in this study due to negligible amounts.

3.5 Background data

The used background data are from the GaBi ts software and the /GaBi ts/ background database. The reference years of the background data sets range from 2013 to 2017.

3.6 Data quality

The used data refer to the year 2015. The data of the foreground processes is based on input-output analyses at the Belgian and Russian production sites and European distribution facilities. The primary data collection was done thoroughly, all flows were considered.

3.7 Period under review

The period under review is 2015.

3.8 Allocation

The overall production of UNILIN comprises further products beside the product considered in this study. Data for thermal and electrical energy as well as auxiliary material refer to the declared product. During data collection the allocation is done via area (m²). Specific information on allocation within the background data is given in the GaBi dataset documentation.
(http://www.gabi-software.com/databases/).

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

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

Transport to the construction site (A4)

Name	Value	Unit
Transport distance (from Russia)	3000	km
Transport distance (from Belgium)	250	km
Capacity utilisation (including empty runs)	85	%
Gross density of products transported	800	kg/m^3

Installation in the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (only packaging)	0.0814	kg

Maintenance, per year (B2)

Name	Value	Unit
Water consumption	0.00324	m^3
Detergent	0.0327	m^3
Electricity consumption	0.664	kWh

Service life

Name	Value	Unit
Service life declared by the manyfacturer	20	a

End of Life (C1-C4)

Name	Value	Unit
Energy recovery	6.37	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit

100% incineration in a biomass power plant.

5. LCA: Results

The results refer to the thickness of 7 mm (6.4 kg/m²) with use class 32. The information on maintenance is declared per year. The factors to calculate other thicknesses can be found in chapter 2.5.

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	X	MNR	MNR	MNR	MND	MND	MND	MND	X	MND	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1m² direct pressure laminate floor coverings

Parameter	Unit	A1-A3	A4	A5	B2	C3	D
Global warming potential	[kg CO_2-Eq.]	-2.96E+0	1.53E-1	1.86E-1	3.34E-1	1.09E+1	-6.58E+0
Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3.28E-9	1.25E-13	3.91E-14	1.55E-11	IND	-1.78E-10
Acidification potential of land and water	[kg SO_2-Eq.]	1.60E-2	6.44E-4	2.62E-5	9.53E-4	IND	3.12E-3
Eutrophication potential	[kg $(PO_4)^{3-}$-Eq.]	3.75E-3	1.60E-4	3.74E-6	1.08E-4	IND	-7.34E-5
Formation potential of tropospheric ozone photochemical oxidants	[kg ethene-Eq.]	2.96E-3	-2.33E-4	1.58E-6	6.18E-5	IND	1.00E-3
Abiotic depletion potential for non-fossil resources	[kg Sb-Eq.]	1.37E-6	1.39E-8	5.01E-9	2.10E-7	IND	-1.70E-6
Abiotic depletion potential for fossil resources	[MJ]	9.41E+1	2.12E+0	4.24E-2	3.81E+0	IND	-8.48E+1

RESULTS OF THE LCA - RESOURCE USE: 1m² direct pressure laminate floor coverings

Parameter	Unit	A1-A3	A4	A5	B2	C3	D
Renewable primary energy as energy carrier	[MJ]	4.82E+1	7.97E-2	1.03E+0	IND	IND	IND
Renewable primary energy resources as material utilization	[MJ]	9.49E+1	0.00E+0	-1.02E+0	IND	9.49E+1	IND
Total use of renewable primary energy resources	[MJ]	1.43E+2	7.97E-2	7.73E-3	1.79E+0	IND	-2.38E+1
Non-renewable primary energy as energy carrier	[MJ]	1.01E+2	1.55E+0	6.06E-1	IND	IND	IND
Non-renewable primary energy as material utilization	[MJ]	2.08E+1	0.00E+0	-5.56E-1	IND	2.08E+1	IND
Total use of non-renewable primary energy resources	[MJ]	1.22E+2	1.55E+0	4.95E-2	5.86E+0	IND	-1.12E+2
Use of secondary material	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	IND	0.00E+0
Use of renewable secondary fuels	[MJ]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	IND	0.00E+0
Use of non-renewable secondary fuels	[MJ]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	IND	0.00E+0
Use of net fresh water	[m³]	3.27E-2	1.47E-4	4.53E-4	2.85E-3	IND	-2.53E-2

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: 1m² direct pressure laminate floor coverings

Parameter	Unit	A1-A3	A4	A5	B2	C3	D
Hazardous waste disposed	[kg]	2.91E-3	8.09E-8	1.15E-10	2.27E-6	IND	-2.67E-8
Non-hazardous waste disposed	[kg]	1.30E-1	1.23E-4	5.38E-3	8.73E-3	IND	5.71E-2
Radioactive waste disposed	[kg]	1.11E-2	3.20E-6	2.80E-6	8.15E-4	IND	-1.09E-2
Components for re-use	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	IND	0.00E+0
Materials for recycling	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	IND	0.00E+0
Materials for energy recovery	[kg]	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.37E+0	0.00E+0
Exported electrical energy	[MJ]	0.00E+0	0.00E+0	2.70E-1	0.00E+0	IND	3.17E+1
Exported thermal energy	[MJ]	0.00E+0	0.00E+0	6.24E-1	0.00E+0	IND	3.79E+1

6. LCA: Interpretation

All environmental impact categories are mainly determined by the HDF and the production of the direct pressure laminate floor coverings.
The HDF plays an important role in **GWP** (Global Warming Potential). The negative contribution to the GWP is due to the greenhouse gas carbon dioxide which is incorporated via photosynthesis (A1-A3) and locked in the wooden HDF board during the use stage of the product. It is released again into the atmosphere during the EOL-incineration process. The release of biotic CO2 is declared in C3.

The use stage (B2) is determined by cleaning the laminate flooring with water and detergent.
HDF is the main contributor as well to the **ODP** (Ozone Depletion Potential). This due to the presence of glue in the HDF boards.

Primary energy from renewables (PERT) is mainly determined by the wood in the HDF-board and thermal energy from renewable resources.

7. Requisite evidence

PEFC certificate

The product fulfills the requirements according to /PEFC ST 2002: 2010/: "Chain of Custody of Forest Based Products - Requirements" second edition. CTIB - TCHN- Hof ter Vleest dreef 3 - 1070 Brussel - Belgium.

VOC emissions - Formaldehyde
Determination of the VOC and formaldehyde emission of a laminate flooring according to /compliance with AgBB-Scheme/, /ISO 16000/ part 3, 6 and 9. – EPH Laboratory Chemical Testing – Zellescher Weg 24 – 01217 Dresden – Germany.

AgBB 28 days break-off criteria

TVOC (C6-C16)	0,129 mg/m³
Σ SVOC (C16-C22)	0 mg/m³
R	0,034
Σ VOC without LCI	0 mg/m³
Σ Cancerogene	0 mg/m³

CE marking
CE-labelling according to EN 14041, type 3 – notified body: 0380-1161.

8. References

EPD 2011
Direct Pressure Laminate Floor Covering, declaration number: EPD-QST-2011111-E.

GaBi ts 2017
thinkstep AG; GaBi ts: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Echterdingen, 1992-2017.

GaBi ts 2017D
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PCR - Part A: Calculation rules for the Life Cycle Assessment and Requirements on the Background Report, Institut Bauen und Umwelt e.V., www.bau-umwelt.com, 2017.

IBU Guidance 2016
PCR guidance text for Building related products and services, Part B: Requirements on the EPD for Floor coverings, Institut Bauen und Umwelt e.V., www.bau-umwelt.com, 2016.

DIN EN ISO 14044
Environmental management - Life cycle assessment - Requirements and guidelines (ISO 14044:2006); German and English version EN ISO 14044

ISO 14025:2006
DIN EN ISO 14025: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 14040:2006
Environmental management - Life cycle assessment - Principles and framework (ISO 14040); German and English version EN ISO 14040

ISO 14041:2016
Elastische, textile und Laminat-Bodenbeläge - Wesentliche Merkmale; Deutsche und Englische Fassung prEN 14041:2016

CEN/TR 15941
Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data; German version CEN/TR 15941

EN 15804
EN 15804: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EN 13329 2006
Laminate floor coverings - Elements with a surface layer based on aminoplastic thermosetting resins - Specifications, requirements and test methods.

ISO 16000-3:2011
ISO 16000-3:2011 – Indoor air – part3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air – Active sampling method.

ISO 16000-6:2011
ISO 16000-6:2011 – Indoor air – part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax A sorbent, thermal desorption an gas chromatography using MS of MS-FID

ISO 16000-9:2006
ISO 16000-9:20006 – Indoor air – part 9: Determination of the emissions of volatile organic compounds from building products and furnishing – Emission test chamber method.

EN ISO 10874:
Resilient, textile and laminate floor coverings -- Classification

FCSS:
Floor Covering Standard Symbols

BBSR:
Bundesinsitut für Bau-, Stadt- und Raumforschung.

EWC-94/3/EC:
Commission Decision of 20 December 1993 establishing a list of wastes pursuant to Article 1a of Counsil Directive 74/442/EEC on waste, 1993 - European Waste Catalogue and Hazardous Waste List valid from 1 January 2002.

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

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