

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	Balsan Moquette
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-BAL-20240144-CBA1-EN
Issue date	08.08.2024
Valid to	07.08.2029

GRAND HÔTEL : Tufted carpet rolls, pile material PA 6, 100% recycled, solution dyed, pile weight of 1250 g/m²

Balsan

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



General Information

Balsan

Programme holder

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

Declaration number

EPD-BAL-20240144-CBA1-EN

This declaration is based on the product category rules:

Floor coverings, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

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Owner of the declaration

Balsan Moquette
Corbilly 2
36330 Arthon
France

Declared product / declared unit

1 m² tufted carpet with a pile material made from recycled polyamide 6

Scope:

The declaration applies to the tufted carpet GRAND HÔTEL with recycled PA6 pile material and with the GUT-PRODIS license number 1E4A9DAB. The carpet is produced at the Balsan manufacturing site in Arthon, in France.

The declaration is only valid in conjunction with a valid GUT-/PRODIS/ license of the product.

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.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as EN 15804.

Verification

The standard EN 15804 serves as the core PCR

Independent verification of the declaration and data according to ISO 14025:2011

internally externally



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



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



Angela Schindler,
(Independent verifier)

Product

Product description/Product definition

The declaration applies to a floor covering product with a surface pile of solution-dyed polyamide 6 with 100% recycled content, a polypropylene primary backing with 30% recycled content and a textile backing made of polypropylene (the recycled nature of the polypropylene support was not taken into account in the calculation). For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 Construction Product Regulation (CPR) applies. The product needs a Declaration of Performance (DoP) taking into consideration EN 14041:2018-05, Resilient, textile and laminate floor coverings - Essential characteristics and the CE-marking. The DoP of the product can be found on the manufacturer's technical information section. For the application and use of the product the respective national provisions apply.

Application

The product can be used in domestic or in commercial areas with heavy use.

Use classes 33 according to EN 1307.

Technical Data

The performance data listed in the DoP apply.

Constructional data

Name	Value	Unit
Type of manufacture	Tufted carpet	-
Product Form	Rolls	-
Yarn type	Polyamide 6, 100% recycled	-
Secondary backing	Textile backing made of polypropylene	-
Total pile weight	1250	g/m ²
Total carpet weight	2520	g/m ²

LCA: Calculation rules

Declared Unit

Name	Value	Unit
Declared unit	1	m ²
Grammage	2.52	kg/m ²
Layer thickness	0,0082	m

The declared unit refers to 1 m² produced textile floor covering. Output of module A5 'Assembly' is 1 m² installed textile floor covering.

Other declared units are allowed if the conversion is shown transparently.

System boundary

Type of EPD:

Cradle-to-gate with options, module C1-C4, module D, and additional modules A4, A5, B1, B2.

System boundaries of modules A, B, C, D: Modules C3, C4 and D are indicated separately for three end-of-life scenarios:
0 - landfill disposal (columns C3, C4, D)

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to EN 14041:2018-05, Resilient, textile and laminate floor coverings - Essential characteristics. Additional product properties in accordance with EN 1307 can be found on the Product Information System PRODIS using the PRODIS registration number of the product (www.pro-dis.info) or on the manufacturer's technical information section (<https://www.balsan.com>)

Base materials/Ancillary materials

Name	Value	Unit
Polyamide 6	49,6	%
Polypropylene	7,9	%
Limestone	34,9	%
SBR Latex	7,3	%
Additives	0,3	%

The total recycled content amounts to 49,6%.

This product contains substances listed in the ECHA candidate list (14.06.2023) or other carcinogenic, mutagenic or reprotoxic (CMR) substances in categories 1A or 1B which are not on the candidate list exceeding 0.1 percentage by mass: no. The products are registered in the GUT-/PRODIS/ Information System. The /PRODIS/ system ensures the compliance with limitations of various chemicals and VOC-emissions and a ban on use of all substances that are listed as 'Substances of Very High Concern' (SVHC) under /REACH/.

Reference service life

A calculation of the reference service life according to /ISO 15686/ is not possible. The service life of textile floor coverings strongly depends on the correct installation taking into account the declared use classification and the adherence to cleaning and maintenance instructions.

A minimum service life of 10 years can be assumed, technical service life can be considerably longer.

1 - municipal waste incineration (columns C3/1, C4/1, D/1)
2 - recovery in a cement plant (columns C3/2, C4/2, D/2)

A1-A3 Production:

Energy supply and production of the basic material, processing of secondary material, auxiliary material, transport of the material to the manufacturing site, emissions, waste water landfill disposal of residual waste (except radioactive waste). Benefits for generated electricity and steam due to the incineration of production waste are aggregated. Biogenic carbon that is stored in renewable material (packaging paper) is taken into account as well as the associated uptake of carbon dioxide from the air from which this biogenic carbon originates.

A4 Transport:

Transport of the packed textile floor covering from factory gate to the place of installation.

A5 Installation:

Installation of the textile floor covering, processing of installation waste and packaging waste up to the landfill disposal of residual waste (except radioactive waste), the production of the amount of carpet that occurs as installation waste including its transport to the place of installation. Generated electricity and steam due to the incineration of

waste are listed in the result table as exported energy. Biogenic carbon stored in renewable materials in packaging paper is released into the air as carbon dioxide emissions at the end of the life cycle in module A5.

Preparation of the floor and auxiliary materials (adhesives, fixing agents, PET connectors) are beyond the system boundaries and not taken into account.

B1 Use:

Indoor emissions during the use stage. After the first year, no product-related Volatile Organic Compound (VOC) emissions are relevant due to known VOC decay curves of the product.

B2 Maintenance:

Cleaning of the textile floor covering for a period of 1 year:
 Vacuum cleaning – electricity supply
 Wet cleaning – electricity, water consumption, production of the cleaning agent, waste water treatment.
 The declared values in this module have to be multiplied by the assumed service life of the floor covering in the building in question.

B3 - B5:

The modules are not relevant within the assumed reference service life of 10 years.

B6 - B7:

No energy and water input are required for the operation of the carpet in the use stage. The modules are not relevant and not declared.

C1 De-construction:

The floor covering is de-constructed manually and no additional environmental impact is caused.

C2 Transport:

Transport of the carpet waste to a landfill, to the municipal waste incineration plant (MWI) or to the waste collection facility for recycling.

C3 Waste processing:

C3-0: Landfill disposal needs no waste processing.

C3-1: Impact from waste incineration (plant with $R1 > 0.6$), generated electricity and steam are listed in the result table as exported energy.

C3-2: Collection of the carpet waste for recovery in the cement industry, waste processing (granulating), transport to the cement plant, emissions from the incineration.

The biogenic carbon that is stored in the renewable materials of the floor covering is released into the air as carbon dioxide emissions.

C4 Disposal:

C4-0: Impact from landfill disposal,
 C4-1: The carpet waste leaves the system in module C3-1,
 C4-2: The pre-processed carpet waste leaves the system in module C3-2.

D Recycling potential: Calculated benefits result from materials exclusive secondary materials (net materials).

D-0: Benefits for generated energy due to landfill disposal of carpet waste at the end of life,

D-1: Benefits for generated energy due to incineration of carpet waste at the end-of-life (incineration plant with $R1 > 0.6$),

D-2: Benefits for saved fossil energy and saved inorganic material due to recovery of the carpet in a cement plant.

D-A5 (declared as D/3 in the results table): Benefits for generated energy due to incineration of packaging and installation waste (incineration plant with $R1 > 0.6$),

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Europe

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. Background data are taken from the Sphera MLC (fka GaBi) CUP 2023.02. Remaining data gaps are covered by the ecoinvent 3.9 database 2022.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

Information on describing the biogenic carbon content at factory gate

Name	Value	Unit
Biogenic carbon content in accompanying packaging	0.013	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

Name	Value	Unit
Material loss	0.227	kg

Polyethene packaging waste and installation waste are considered to be incinerated in a municipal waste incineration plant. Cardboard packaging waste is going to be recycled. Preparation of the floor and auxiliaries (adhesives, fixing agents, PET connectors, etc.) are not taken into account.

Maintenance (B2)

Indication per m² floor covering and per year (see annex, chapter 'General Information on use stage B1-B7'). Depending on the application based on ISO 10874, the technical service life recommended by the manufacturer and the anticipated strain on the floor by customers, the case-specific useful life can be established. Based on this useful life the effects of module B2 need to be calculated in order to obtain the overall environmental impacts.

Transport to the construction site (A4)

Name	Value	Unit
Litres of fuel (Truck Euro 0-6 Mix)	0.007	l/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	55	%
Gross density of products transported	307	kg/m ³

Installation in the building (A5)

Name	Value	Unit
Maintenance cycle (vacuum cleaning)	208	1/year
Maintenance cycle (wet cleaning)	1.5	1/year
Water consumption (wet cleaning)	0.0044	m ³
Cleaning agent (wet cleaning)	0.09	kg
Electricity consumption	0.314	kWh

For further information on cleaning and maintenance see
www.balsan.com

Reference Service Life

Name	Value	Unit
Life Span (to BBSR)	10	a
Declared product properties (at the gate) and finishes	Corresponds to the specifications of EN 1307	-
An assumed quality of work, when installed in accordance with the manufacturer's instructions	Conforms to the manufacturer's instructions	-
Usage conditions, e.g. frequency of use, mechanical exposure	Use in areas defined by use class according to EN 1307	-
Maintenance e.g. required frequency, type and quality and replacement of components	According to manufacturer's instructions	-

End of Life (C1-C4)

Three different end-of-life scenarios are declared and the results are indicated separately in module C.
 Each scenario is calculated as a 100% scenario.

Scenario 0: 100 % landfill disposal
 Scenario 1: 100 % municipal waste incineration (MWI) with R1>0.6
 Scenario 2: 100 % recovery in the cement industry

If combinations of these scenarios have to be calculated this should be done according to the following scheme:

EOL-impact = x % impact (Scenario 0)

+ y % impact (Scenario 1)

+ z % impact (Scenario 2)

with x % + y % + z % = 100 %

Name	Value	Unit
Collected as mixed construction waste (scenarios 0 and 1)	2.52	kg
Collected separately waste type (scenario 2)	2.52	kg
Landfilling (scenario 0)	2.52	kg
Energy recovery (scenario 1)	2.52	kg
Energy recovery (scenario 2)	1.64	kg
Recycling (scenario 2)	0.88	kg

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

Recovery or recycling potentials due to the three end-of-life scenarios (module C) are indicated separately.

Recycling in the cement industry (scenario 2) VDZ e.V.

The organic material of the carpet is used as an alternative fuel in a cement kiln. It mainly substitutes for lignite (68.8%), hard coal (23.6%) and petrol coke (7.6%). The inorganic material is substantially integrated into the cement clinker and substitutes for original material input.

The values in column D/3 result from module D-A5.

LCA: Results

The results refer to the declared product.

The declared result figures in module B2 have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration. Information on non-relevant modules: Modules B3 - B7 are not relevant during the service life of the carpet. Modules C3, C4/1 and C4/2 cause no additional impact (see chapter "LCA: Calculation rules" in this document). Module C2 represents the transport for scenarios 0, 1 an 2. The values in column D/3 result from module D-A5.

Version number of the characterisation factors used : EN 15804+A2 (based on EF 3.1)

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

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

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1m² - Tufted carpet

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
GWP-total	kg CO ₂ eq	4.45E+00	1.84E-01	7.94E-01	0	5.15E-01	0	1.03E-02	0	4.14E+00	4.18E+00	1.71E-01	0	0	0	-2.87E-01	-2.2E-02	-2.58E-02
GWP-fossil	kg CO ₂ eq	4.48E+00	1.82E-01	7.93E-01	0	3.15E-01	0	1.02E-02	0	4.14E+00	4.18E+00	1.71E-01	0	0	0	-2.86E-01	-2.21E-02	-2.57E-02
GWP-biogenic	kg CO ₂ eq	-3.81E-02	4.25E-04	7.58E-05	0	3.69E-03	0	2.39E-05	0	3.96E-04	5.54E-04	0	0	0	0	-1.28E-03	1.26E-04	-1.15E-04
GWP-luluc	kg CO ₂ eq	8.96E-03	1.72E-03	9.77E-04	0	1.96E-01	0	9.67E-05	0	9.6E-05	3.39E-04	1.43E-04	0	0	0	-1.83E-05	-2.37E-05	-1.65E-06
ODP	kg CFC11 eq	1.54E-08	1.63E-14	1.39E-09	0	3.42E-08	0	9.14E-16	0	3.95E-13	6.06E-13	2.91E-13	0	0	0	-2.17E-12	-7.91E-14	-1.95E-13
AP	mol H ⁺ eq	1.83E-02	1.14E-03	2.24E-03	0	7.94E-04	0	6.42E-05	0	5.4E-03	5.59E-03	5.2E-04	0	0	0	-3.51E-04	-7.57E-05	-3.16E-05
EP-freshwater	kg P eq	5.85E-05	6.77E-07	5.37E-06	0	5.23E-06	0	3.81E-08	0	3.95E-07	5.33E-07	3.34E-05	0	0	0	-4.48E-07	-5.73E-08	-4.03E-08
EP-marine	kg N eq	6.71E-03	5.6E-04	9.02E-04	0	1.92E-04	0	3.15E-05	0	2.73E-03	2.81E-03	1.19E-04	0	0	0	-1.04E-04	-2.8E-05	-9.32E-06
EP-terrestrial	mol N eq	6.09E-02	6.21E-03	8.8E-03	0	2.77E-03	0	3.49E-04	0	3.03E-02	3.12E-02	1.31E-03	0	0	0	-1.11E-03	-3.07E-04	-9.98E-05
POCP	kg NMVOC eq	1.56E-02	1.06E-03	2.13E-03	4.18E-04	9.67E-04	0	5.95E-05	0	6.96E-03	7.13E-03	3.78E-04	0	0	0	-2.89E-04	-8.16E-05	-2.6E-05
ADPE	kg Sb eq	1.06E-06	1.21E-08	9.72E-08	0	2.14E-07	0	6.78E-10	0	9.2E-09	1.27E-08	4.58E-09	0	0	0	-1.99E-08	-1.26E-09	-1.79E-09
ADPF	MJ	7.12E+01	2.53E+00	6.84E+00	0	5.93E+00	0	1.42E-01	0	2.17E+00	2.76E+00	2.59E+00	0	0	0	-5.26E+00	-3.41E+00	-4.73E-01
WDP	m ³ world eq deprived	7.36E+00	2.14E-03	7.06E-01	0	9.61E-02	0	1.2E-04	0	4.81E-01	4.84E-01	-2.45E-03	0	0	0	-2.63E-02	-2.4E-03	-2.36E-03

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1m² - Tufted carpet

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
PERE	MJ	6.22E+01	1.79E-01	5.71E+00	0	3.79E+00	0	1.01E-02	0	3.35E-01	5.02E-01	2.33E-01	0	0	0	-1.48E+00	-4.76E-02	-1.33E-01
PERM	MJ	5.7E-02	0	-5.7E-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERT	MJ	6.23E+01	1.79E-01	5.65E+00	0	3.79E+00	0	1.01E-02	0	3.35E-01	5.02E-01	2.33E-01	0	0	0	-1.48E+00	-4.76E-02	-1.33E-01
PENRE	MJ	6E+01	2.53E+00	7.4E+00	0	5.93E+00	0	1.42E-01	0	1.29E+01	1.35E+01	2.59E+00	0	0	0	-5.26E+00	-3.41E+00	-4.74E-01
PENRM	MJ	1.13E+01	0	-5.46E-01	0	0	0	0	0	-1.08E+01	-1.08E+01	0	0	0	0	0	0	0
PENRT	MJ	7.13E-01	2.53E-01	6.85E-01	0	5.93E-01	0	1.42E-01	0	2.17E-01	2.76E-01	2.59E-01	0	0	0	-5.26E-01	-3.41E-01	-4.74E-01

		+01	+00	+00		+00		01		+00	+00	+00				+00	+00	01
SM	kg	1.43E+00	0	1.28E-01	0	0	0	0	0	0	0	0	0	0	0	4.9E-01	0	
RSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NRSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FW	m ³	1.77E-01	1.97E-04	1.7E-02	0	3.26E-03	0	1.11E-05	0	1.14E-02	1.15E-02	2.55E-05	0	0	0	-1.2E-03	-2.98E-04	-1.08E-04

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

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1m² - Tufted carpet

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
HWD	kg	3.85E-03	9.37E-12	3.47E-04	0	4.19E-05	0	5.27E-13	0	2.94E-10	2.76E-10	2.18E-10	0	0	0	-3.02E-10	5.29E-12	-2.71E-11
NHWD	kg	5.41E-01	3.65E-04	8.89E-02	0	7.29E-03	0	2.05E-05	0	4.46E-01	4.46E-01	2.51E+00	0	0	0	-2.56E-03	-9.29E-05	-2.3E-04
RWD	kg	7.34E-04	3.27E-06	7.24E-05	0	3.79E-04	0	1.84E-07	0	6.72E-05	1.05E-04	3.06E-05	0	0	0	-3.93E-04	-6.67E-06	-3.53E-05
CRU	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR	kg	2.52E-02	0	2.27E-03	0	0	0	0	0	0	4.9E-01	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	6.16E-01	0	0	0	0	0	6.84E+00	0	0	0	0	0	0	0	0
EET	MJ	0	0	1.11E+00	0	0	0	0	0	1.24E+01	5.24E+01	0	0	0	0	0	0	0

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

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1m² - Tufted carpet

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
PM	Disease incidence	1.28E-07	7.19E-09	1.38E-08	0	6.82E-08	0	4.04E-10	0	1.72E-08	1.84E-08	5.04E-09	0	0	0	-2.98E-09	-7.68E-09	-2.68E-10
IR	kBq U235 eq	1.26E-01	4.73E-04	1.23E-02	0	6.73E-02	0	2.66E-05	0	1.02E-02	1.65E-02	4.53E-03	0	0	0	-6.53E-02	-6.27E-04	-5.88E-03
ETP-fw	CTUe	2.94E+01	1.78E+00	2.88E+00	3.6E-03	2.07E+00	0	1E-01	0	7.51E-01	1.07E+00	2.21E+00	0	0	0	-7.11E-01	-1.29E+00	-6.39E-02
HTP-c	CTUh	2.48E-09	3.6E-11	2.31E-10	0	6.26E-10	0	2.02E-12	0	4.73E-11	5.59E-11	1.13E-10	0	0	0	-5.76E-11	-6.25E-12	-5.19E-12
HTP-nc	CTUh	6.59E-08	1.59E-09	6.26E-09	2.6E-11	6.16E-09	0	8.91E-11	0	1.95E-09	2.23E-09	9.05E-09	0	0	0	-1.44E-09	-2.57E-10	-1.29E-10
SQP	SQP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

No substantiated values can be given for the SQP indicator with the existing database.

The result figures given in module B2 refer to a period of 1 year because a reference service life is not declared. They have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration.

Disclaimer 1 – for the indicator 'Potential Human exposure efficiency relative to U235'. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators 'abiotic depletion potential for non-fossil resources', 'abiotic depletion potential for fossil resources', 'water (user) deprivation potential, deprivation-weighted water consumption', 'potential comparative toxic unit for ecosystems', 'potential comparative toxic unit for humans – cancerogenic', 'Potential comparative toxic unit for humans - not cancerogenic', 'potential soil quality index'. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

EN 1307

DIN EN 1307: 2014+A1:2016+A2:2018-05: Textile floor coverings - Classification

DIN EN 13501-1:2019-05: Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

EN 13501-1

EN 14041

DIN EN 14041: 2018-05 and DIN EN 14041: 2008-05:
Resilient, textile and laminate floor coverings - Essential
characteristics

EN 15804

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

EN 16810

DIN EN 16810: 2017-08: Resilient, textile and laminate floor
coverings – Environmental product declarations – Product
category rules

ISO 10874

DIN EN ISO 10874: 2012+A1:2021-04: Resilient, textile and
laminate floor coverings - Classification

ISO 14025

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

ISO 14040

DIN EN ISO 14040:2006+A1:2020 Environmental
management - Life cycle assessment - Principles and
framework

ISO 14044

DIN EN ISO 14044:2006+A1:2018+A2:2020 Environmental
management - Life cycle assessment - Requirements and
guidelines

ISO 15686

ISO 15686: Buildings and constructed assets - Service life
planning

ISO 15686-1: 2011-05: Part 1: General principles and
framework

ISO 15686-2: 2012-05: Part 2: Service life prediction
procedures

ISO 15686-7: 2017-04: Part 7: Performance evaluation for
feedback of service life data from practice

ISO 15686-8: 2008-06: Part 8: Reference service life and
service- life estimation

Regulation (EU) No. 305/2011

Regulation No. 305/2011 Construction Products Regulation
(CPR) of the European Council and of the European
Parliament, April 2011

General Instructions for the IBU-EPD Program

General Instructions for the EPD-Program of the Institut Bauen
und Umwelt e.V., The Preparation of Environmental Product
Declarations - EPDs, version 2.0, Institut Bauen und Umwelt

e.V., Berlin, January 2021, www.ibu-epd.de

BBSR

Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) im
Bundesamt für Bauwesen und Raumordnung (BBR), Bonn

BNB, Nutzungsdauer von Bauteilen

Bewertungssystem Nachhaltiges Bauen (BNB), Nutzungsdauer
von Bauteilen, Bundesministerium des Inneren, für Bau und
Heimat, 24.02.2017

ECHA candidate list

Candidate List of substances of very high concern (SVHCs) for
authorisation, last update 14.06.2023, European Chemicals
Agency (ECHA), Helsinki, Finland

ecoinvent 3.9

ecoinvent, Zurich, Switzerland, database version 3.9, published
September 2022

Sphera MLC database 2023-2

LCA for experts Software-System and database for Life Cycle
Engineering, thinkstep AG, Sphera Solutions Inc, Stuttgart,
2023-2

PCR Part A

Product Category Rules for Construction Products from the
range of Environmental Product Declarations. Part A:
Calculation Rules for the Life Cycle Assessment and
Requirements on the Background Report, V1.3, Berlin: Institut
Bauen und Umwelt e.V. (IBU), August 2022

PCR Part B

Product Category Rules for Construction Products from the
range of Environmental Product Declarations of Institut Bauen
und Umwelt (IBU), Part B: Requirements on the EPD for floor
coverings, V1.3, Berlin: Institut Bauen und Umwelt e.V. (IBU),
September 2022

PRODIS

Product Information System (PRODIS) of the European Carpet
Industry, Gemeinschaft umweltfreundlicher Teppichböden e.V
(GUT) and European Carpet and Rug Association (ECRA),
<http://www.pro-dis.info>

REACH

Regulation (EC) No 1907/2006 of the European Parliament and
of the Council of 18 December 2006 concerning the
Registration, Evaluation, Authorisation and Restriction of
Chemicals (REACH). Last update: 14.06.2023

VDZ e.V.

Association of German Cement Works, Ed. Environmental
Data of the German Cement Industry 2020

Publisher



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