ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration	Amorim Revestimentos S. A.
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-AMO-20150057-IAA1-EN
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Valid to	11/08/2021

Cork Flooring Floating Waterproof

Amorim Revestimentos S. A.

Institut Bauen und Umwelt e.V.

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

ECO PLATFORM EPD EN 15804 VERIFIED

1. General Information

Amorim Revestimentos S.A.	Cork Flooring Floating Waterproof
Programme holder IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany	**Owner of the Declaration** Amorim Revestimentos, S.A. Rua do Ribeirinho, nº 202 Apartado 13 4536 - 907 S. Paio Oleiros Portugal
Declaration number EPD-AMO-20150057-IAA1-EN	**Declared product / Declared unit** 1 m² of Cork Flooring Floating Waterproof
This Declaration is based on the Product Category Rules: Floor coverings, 07.2016 (PCR tested and approved by the SVR)	**Scope:** The data on which the Life Cycle Assessment is based is from the production process of Cork Flooring Floating Waterproof taking place in one industrial unit of Amorim Revestimentos (Oleiros). The data used is from one industrial unit and is referred to the year of 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.
Issue date 12/08/2016	
Valid to 11/08/2021	**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)	Patricia Wolf (Independent verifier appointed by SVR)

2. Product

2.1 Product description

Cork Flooring Floating Waterproof is a type of floor covering offering a low thickness floating solution. The product's low thickness makes it a good choice for renovation projects, since Cork Flooring Floating Waterproof can be installed on top of other surfaces, avoiding the need to remove a previously existing floor. The product is water resistant so it will not swell when exposed to humidity. This means the same visual can be installed in all rooms of a house or building, and the product is also suitable for environments where low maintenance is a requirement.

2.2 Application

Cork Flooring Floating Waterproof fits the most demanding needs for domestic areas. This flooring product meets the requirements of the usage classes 33 for commercial use and 23 for domestic use according to /ISO 10874/ standard.

2.3 Technical Data

Relevant technical construction data for the product is referred in the following table.

Constructional data

Name	Value	Unit
Overall thickness /ISO 24346/	nominal +- 0,25	mm
Squareness /ISO 24342/	≤ 0,50	mm
Straightness measured at the surface layer /ISO 24342/	≤ 0,30	mm
Apparent density /EN 672/	Nominal value (1400)+ - 140	kg/m³
Mass per unit area /ISO 23997/	Nominal value (8400) +13%/- 10%	g/m2
Dimensional stability (humidity) /EN 14085/ Annex C /EN 669/	≤ 5	mm
Dimensional stability (heat) /EN 14085/	≤ 0,25	%
Openings between panels /EN 14085/ Annex B	< 0,20	mm
Height difference between panels /EN 14085/ Annex B	< 0,20	mm
Flatness of the panel (Length - Concave / Convex) /EN 14085/ Annex	≤ 0,50 / ≤ 1,0	%

A		
Flatness of the panel (Width - Concave / Convex) /EN 14085/ Annex A	≤ 0,10 / ≤ 0,15	%
Residual indentation /ISO 24343-1/	≤ 0,1	mm
Curling after exposure to heat /ISO 23999/	≤ 2	mm
Colour fastness /ISO 105-B02/	≥ 6	Blue wool scale
Wearing Group /EN 660-1/	Wear group T	Thickness loss (Δ lmm)
Wear layer thickness (wear layer binder content Type 1) /ISO 24340/	0,55	mm
Thickness swelling /ISO 24336/	≤ 15	%
Castor chair /EN 425/	No disturbance to the surface other than a slight change in appearance and no delamination shall occur	Visual effect - after 25.000 cycles
Simulated movement of a furniture leg /EN 424/	No damage shall be visible after testing with a type 0 foot	Visual effect

2.4 Application rules

The standards and general technical approval regarding Cork Flooring Floating Waterproof are the following:
- ISO 10582:2010 - Resilient floor coverings -- Heterogeneous poly(vinyl chloride) floor coverings – Specification.
- EN 14085:2010 - Resilient floor coverings. Specification for floor panels for loose laying.
- EN 14041:2004 - Resilient, textile and laminate floor coverings – Essential characteristics.

2.5 Delivery status

The dimensions of rectangular panels of Cork Flooring Floating Waterproof are declared in the following table.

Dimensions of panels (ISO 24342)	Specification
Dimensions	1225 x 145 mm x 6 mm ± 0,10% with:
Variation width	max. 0,5 mm
Variation length	max. 2,0 mm

The layers composing Cork Flooring Floating Waterproof are shown in the following table.

Name	Value	Unit
LVT top layer	1,8	mm
Cork layer	3,0	mm
Vinyl backing	1,2	mm

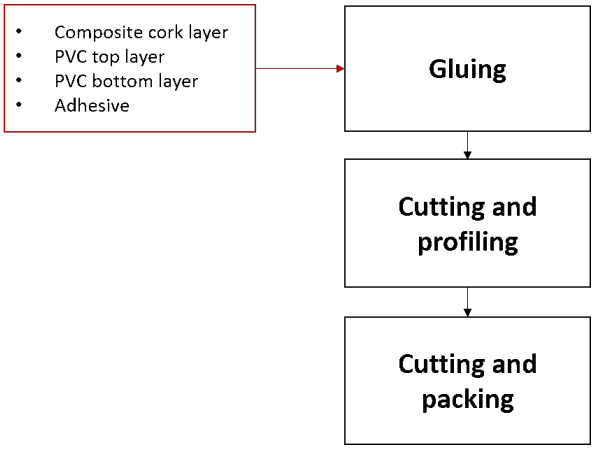
2.6 Base materials / Ancillary materials

Name	Value	Unit
Vinyl top layer (LVT)	38,61	%
Cork and PVC layer	31,18	%
Vinyl backing layer	27,77	%
Adhesive	2,44	%

The primary product components and materials of the product are indicated as a percentage mass in the following table.

2.7 Manufacture

General flow production of Cork Flooring Floating Waterproof is represented in the following graphic.



The manufacturing process of the flooring product begins by assembling the layers of composite cork layer and the LVT layers (top and bottom) using an adhesive. The resulting board is then cut into the defined dimensions and is now ready for packaging and storage.

2.8 Environment and health during manufacturing

During the production process the environmental and health aspects are considered.
Air: The emission of particles and pollutants are collected in filter systems and the levels are below the permissible limits.
Water: The product requires a low water consumption that is totally treated in an Industrial Waste Water Treatment Plant (IWWTP).
Noise: Noise resulting from operation during the production process is below the permissible limits.

2.9 Product processing/Installation

The subfloor must be even, dry, variations should not exceed 3 mm in 2 m (0.12” in 6.6 feet) and flat (e.g. if the subfloor is a ceramic tile, or if there is any kind of embossing, skim coat the grout lines with a floor leveller).
All types of concrete, wooden and ceramic surfaces must be completely dry.

2.10 Packaging

Resilient floor coverings are delivered in packages designed to protect the corners, edges and surfaces of the product, under normal conditions of transport and handling (compliant with /EN 13329/).
Product planks are laid in cardboard boxes, wrapped in packaging film and placed on wooden pallets, secured by plastic straps.
These packaging materials can be collected separately and recycled.
Pallets can either be re-used (Euro pallets) or recycled as wood.

2.11 Condition of use

Cork Flooring Floating Waterproof flooring products have in their composition a significant amount of natural renewable raw materials, meaning that they have stored about 2,17 kg CO_2/m^2 of product resulting from photosynthesis.

2.12 Environment and health during use

The following table indicates the information about safety properties.

Safety properties - EN 14041	Standard- Test Method	Unit	Specification
Fire resistance	ISO 11925-2/ISO 9239-1(classification according to EN 13501-1)	Class	Bfl-s1
Electrical behaviour	EN1815	Kv	Not Antistatic
Slip resistance	EN13893	Class	DS
Formaldehyde emission	DIN EN 717-1	Class	E1
Content pentachlorophenol (PCP)	EN 14041 Annex B	%	Undetectable

2.13 Reference service life

The expected service life of the product was determined based on empirical experience of the manufacturer, considering the different use classes, according to /ISO 10874/. The following table indicates the expected service life for domestic, commercial and industrial uses.

Application area	Class	Expected service life
Domestic	23	25 years
Commercial	33	15 years

2.14 Extraordinary effects

Fire

Fire performance according to /EN 13501 – 1/ (building products) of Cork Flooring Floating Waterproof is Bfl-s1.

Fire protection

Name	Value
Building material class	-
Smoke gas development	-
Burning droplets	-

Water

There are no environmental impacts on water identified in the use stage of the product since the product is mainly composed by natural materials that are not hazardous to water masses.

Mechanical destruction

There are no potential harm to health and environment known resulting from mechanical destruction of the product.

2.15 Re-use phase

The product is mainly composed of cork and LVT. LVT layers are made of PVC and limestone. They can be shredded, granulated or powdered and then re-melted to make a secondary input material. Cork can also be suitable for composting. Waste from this flooring product can be reused in the process as replacement of some of the raw materials. This type of flooring product can also be reused, although its service life is expected to be less than the original warranty from the manufacturer. Regarding energy recovery, cork and PVC can be incinerated in order to produce thermal energy or electricity. However, incineration of PVC originates emissions of chlorine in waste streams, contaminated ash residue and eventual emission of dioxins.

2.16 Disposal

According to the /European Waste Catalogue Directive/ the used floor covering can be classified in the main category “17 Construction and Demolition Waste (including road construction)”.
Considering the specific constitution of this floor covering, and assuming that the layers cannot be separated at the end of life, the waste code applied is the following:
17 09 04 Mixed construction and demolition waste other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
These types of waste materials can be recovered according to the /European Waste Framework Directive/.

2.17 Further information

Other information can be found in the website of the different brands of the manufacturer Amorim Revestimentos:

http://www.wicanders.com/
http://www.cortex.de/
http://www.corklife.de/

3. LCA: Calculation rules

3.1 Declared Unit

The declared unit is 1 m^2 of floor covering with the following characteristics (average of both industrial units):

Declared unit

Name	Value	Unit
Declared unit Declared Unit	1	m^2
Conversion factor to 1 kg	1,22E-01	-

3.2 System boundary

Type of the EPD: cradle to gate. This EPD includes the stage A1-A3 - Production Stage: Includes the production phase of all the products and chemicals used in the product, carbon sequestration of the raw material (wood and cork), the transport of these materials from the suppliers to the industrial unit of

Amorim Revestimentos and the production stage of Cork Flooring Floating Waterproof.

3.3 Estimates and assumptions

CO_2 intake due to photosynthesis associated to cork and wood was considered, according to EN 16449/. Information on components and average weight percentage of adhesives was obtained from their technical data sheets.

3.4 Cut-off criteria

All available data associated directly to the manufacture of the product was included in the LCA, with the exception of infrastructure and buildings. Hence, the study complies with the cut-off criteria of 1% of renewable and non-renewable primary energy usage and 1% of the total mass of that unit process.

3.5 Background data

Specific data was used based on average production of 2014. For processes which the producer has no influence or specific information, like the extraction of raw materials, generic data from the following main sources were considered:
- /Ecoinvent 2.0/
- /Ecoinvent 3.0/
- /PRé Consultants/

3.6 Data quality

Specific data is referred to production of 2014. Data sets of processes from /Ecoinvent/ database are less than 8 years old. Data sets are based on literature and average data from specific industrial units. Regarding geography coverage, whenever possible it was used average European data and Portugal specific energy mix. In cases where no average European data was available, it was used the most approximate data set. Considering these aspects, the data used in this study is considered of high quality.

3.7 Period under review

The specific data collected from the manufacturer refer to the year of 2014.

3.8 Allocation

Energy, water, wastewater and air emissions allocated to this product were determined by the manufacturer, considering the different processes involved in the production of the product.

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

Not relevant

Transport to the construction site (A4)

Not relevant

Name	Value	Unit
Litres of fuel	-	l/100km
Transport distance	-	km
Capacity utilisation (including empty runs)	-	%
Gross density of products transported	-	kg/m³
Capacity utilisation volume factor	-	-

Installation in the building (A5)

Not relevant

Name	Value	Unit
Auxiliary	-	kg
Water consumption	-	m³
Electricity consumption	-	kWh
Other energy carriers	-	MJ
Material loss	-	kg
Output substances following waste treatment on site	-	kg
Dust in the air	-	kg

Use (B1) see cap. 2.12 use

Not relevant

Name	Value	Unit

Maintenance (B2)

Not relevant

Name	Value	Unit

Repair (B3)

Not relevant

Name	Value	Unit

Replacement (B4) / Refurbishment (B5)

Not relevant

Name	Value	Unit
Replacement cycle	-	Number/ RSL
Electricity consumption	-	kWh
Replacement of worn parts	-	Number/ RSL

Reference service life

Not relevant

Name	Value	Unit
Reference service life	-	a

Operational energy (B6) and water consumption (B7)

Not relevant

Name	Value	Unit
Water consumption	-	m³
Electricity consumption	-	kWh
Other energy carriers	-	MJ
Equipment output	-	kW

End of Life (C1-C4)

Not relevant

Name	Value	Unit
Collected separately	-	kg
Collected as mixed construction waste	-	kg
Reuse	-	kg
Recycling	-	kg
Energy recovery	-	kg
Landfilling	-	kg

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

Not relevant

Name	Value	Unit

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	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 m2 of Cork Flooring Floating Waterproof

Parameter	Unit	A1-A3
Global warming potential	[kg CO_2-Eq.]	9.34E+0
Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3.72E-7
Acidification potential of land and water	[kg SO_2-Eq.]	5.68E-2
Eutrophication potential	[kg $(PO_4)^{3-}$-Eq.]	1.78E-2
Formation potential of tropospheric ozone photochemical oxidants	[kg ethene-Eq.]	2.82E-3
Abiotic depletion potential for non-fossil resources	[kg Sb-Eq.]	7.98E-6
Abiotic depletion potential for fossil resources	[MJ]	2.62E+2

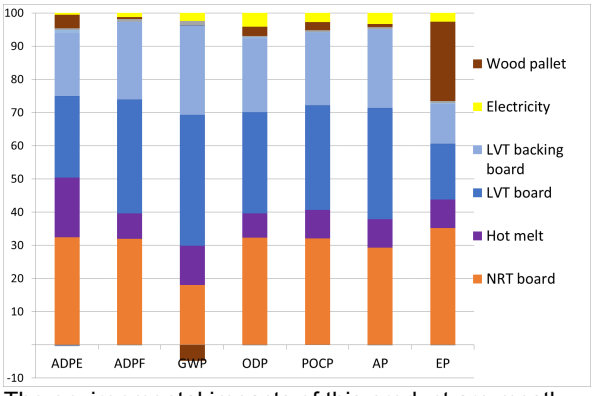
RESULTS OF THE LCA - RESOURCE USE: 1 m2 of Cork Flooring Floating Waterproof

Parameter	Unit	A1-A3
Renewable primary energy as energy carrier	[MJ]	1.72E+1
Renewable primary energy resources as material utilization	[MJ]	2.35E+1
Total use of renewable primary energy resources	[MJ]	4.06E+1
Non-renewable primary energy as energy carrier	[MJ]	1.72E+2
Non-renewable primary energy as material utilization	[MJ]	1.20E+2
Total use of non-renewable primary energy resources	[MJ]	2.92E+2
Use of secondary material	[kg]	0.00E+0
Use of renewable secondary fuels	[MJ]	0.00E+0
Use of non-renewable secondary fuels	[MJ]	0.00E+0
Use of net fresh water	[m^3]	1.93E-3

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: 1 m2 of Cork Flooring Floating Waterproof

Parameter	Unit	A1-A3
Hazardous waste disposed	[kg]	1.93E-4
Non-hazardous waste disposed	[kg]	8.77E-1
Radioactive waste disposed	[kg]	2.24E-4
Components for re-use	[kg]	0.00E+0
Materials for recycling	[kg]	0.00E+0
Materials for energy recovery	[kg]	0.00E+0
Exported electrical energy	[MJ]	0.00E+0
Exported thermal energy	[MJ]	0.00E+0

6. LCA: Interpretation



The environmental impacts of this product are mostly related to the LVT boards, the NRT 3D layer and the hot-melt adhesive, in different proportions for each category.

Abiotic Depletion (ADP)

The impacts of LVT are due to the use of mineral resources linked to the infrastructure where therephthalic acid is manufactured and to the transport of PVC, due to the manufacture of the truck. Regarding the hot melt glue, the impacts are linked also to the use of mineral resources in construction of infrastructure and trucks. The impacts linked to NRT 3D are due to the use of theraphthalic acid (DOTP).

Abiotic Depletion (fossil fuels)

LVT impacts are linked to the PVC used in this product, since this material is composed of fossil fuels. PVC is also the component in NRT 3D which has a higher impact in this category. The impacts of the hot melt adhesive, which has polyurethane in its

constitution, are due to the toluene and polyol, which are derived from fossil fuels.

Global Warming Potential (GWP)

The impacts linked to LVT are associated to the production process of PVC and also to the transportation of LVT to the plant. The first one is not possible to assess, because the data set does not allow us to understand the processes involved. The impacts linked to transport are associated to emission of pollutants during combustion process. NRT 3D has also a significant impact due to electricity production, which results in emission of several pollutants, and to the use of PVC. The positive impacts related to this category are linked to the carbon fixation of the wood pallet used for packing the product.

Ozone layer Depletion (ODP)

Regarding LVT, the impacts are linked to emission of pollutants due to combustion of fuels in transport of the product. The impacts of NRT 3D are associated to combustion of fuels also, mainly related to electricity production. Hot melt adhesive impacts are due to transport of the material to the plant and also to the transport associated to the polyols contained in polyurethane.

Photochemical Oxidation (POCP)

Regarding LVT, the impacts are related to the emission of pollutants resulting from combustion of heavy fuel oil in boat transport and PVC. NRT impacts are linked to emission of pollutants from electricity production and PVC used in the mix. Hot melt adhesive contribution is due to incineration of waste material, resulting in emission of pollutants.

Acidification Potential (AP)

The impacts on AP due to LVT are linked to emission of pollutants from combustion of fossil fuels related to transoceanic freight ship and also due to the use of PVC. NRT main contribution comes from the PVC and electricity production used in the manufacturing process. Hot melt adhesive impacts are due to production of polyols and toluene, which results in emission of pollutants into the atmosphere.

Eutrophication Potential (EP)

NRT 3D impacts on this category are mostly due to the wood pallets, in which the wastewater from the process results in emission of pollutants such as nitrates and phosphates into the water. The LVT impacts result from emission of pollutants from fuel combustion in transport of freight ship and PVC. The hot melt contribution is associated to leaching of pollutants from incineration waste in landfills and spoil from hard coal mining, linked to polyols and toluenes in polyurethane.

7. Requisite evidence

French legislation

Cork Flooring Floating Waterproof was subjected to tests in order to determine the quantities of VOCs, formaldehydes, acetaldehyde and other CMR (Carcinogenic, Mutagenic or Toxic to Reproduction) substances to obtain the classification of the product according to criteria established by the recent French legislation.

Name of the testing Institute	LQAI - Laboratório da Qualidade do ar interior
Number of test report	LQAI.MC.58/13
Testing methods	Tests in a room after 28 days of exposure according to ISO 16000-9 standards Analysis of results according to ISO 16000-6

Results

Concentration limits and correspondent classes according to French legislation after 28 days of exposure to specific surface emission rate of 1,25 m3 h-1 m-2 are presented in the following table.

	Concentration (µg/m3) Classes			
Substance	C	B	A	A+
Formaldehyde	>120	<120	<6	<10
Acetaldehyde	>400	<400	<300	<200
Toluene	>600	<600	<450	<300
Tetrachloroethylene	>500	<500	<350	<250
Xylene	>400	<400	<300	<200
1,2,4 - trimethylbenzene	>2000	<2000	<1500	<1000
1,4 - Dichlorobenzene	>120	<120	<90	<60
Ethylbenzene	>1500	<1500	<1000	<750
2 - Butoxyethanol	>2000	<2000	<1500	<1000
Styrene	>500	<500	<350	<250
COVT	>2000	<2000	<1500	<1000

Concentration limits of CMR and correspondent classes according to French legislation after 28 days of exposure to specific surface emission rate of 1,25 m3 h-1 m-2 are presented in the following table.

Substance	Limits (µg/m³)
Trichloethylene	<1
Benzene	<1
Phtalate de bis (2-ethylhexyle)	<1
Phtalate de dibutyle	<1

The material has achieved a Classification of A+ according to French legislation since the results have not exceeded the concentration limits correspondent to that class and are also below the concentration limits of CMR substances.

GREENGUARD Certification

This product has also been certified according to the GREENGUARD Certification Program.

Certification Program	GREENGUARD Certification
Number of test report	68278-410
Reference Standard	UL 2818 - 2013 Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Criteria: GREENGUARD Certification emissions limits were first used as purchasing specifications for the US EPA and the State of Washington for furniture and commercial building products. GREENGUARD Certification criteria have been the basis for the LEED credit for low emitting furniture since 2002. Office Furniture products that are GREENGUARD Certified are also compliant with the BIFMA X7.1 standard and BIFMA e3 credit 7.6.1.

Criteria	Maximum Allowable Predicted Concentration	Units
TVOC	≤ 0,5	mg/m3
Formaldehyde	61.3 (50 ppb)	µg/m³
Total Aldehydes	0.10	ppm
Particle Matter less than 10 µm	50	µg/m³
4-phenylcyclohexene	6.5	µg/m³
Individual VOCs	1/10th TLV	-

Results
GREENGUARD Certification affirms that representative samples of the products tested meet the criteria of the referenced standard and the requirements of the specific certification program.

GREENGUARD Gold
In addition to meeting the GREENGUARD Certification criteria, the product also complies with requirements of GREENGUARD Gold.

Certification Program	GREENGUARD Gold
Number of test report	68278-420
Reference Standard	UL 2818 -2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Criteria: This standard includes health based criteria for additional chemicals and also requires lower total VOC emissions levels to ensure that products are acceptable for use in environments such as schools and healthcare facilities. In addition to limiting emissions of more than 360 VOCs and total chemical emissions, GREENGUARD Gold Certified products must also comply with requirements of the State of California's Department of Public Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 (2010)".

Criteria	Maximum Allowable Predicted Concentration	Units
TVOC	0.22	mg/m³
Formaldehyde	9 (7.3 ppb)	µg/m³
Total Aldehydes	0.043	ppm
4-Phenylcyclohexene	6.5	µg/m³
Particle Matter less than 10 µm	20	µg/m³
1-Methyl-2-pyrrolidinone	160	µg/m³
Individual VOCs	1/2 CREL or 1/100th TLV	-

Results
GREENGUARD Certification affirms that representative samples of the products tested meet the criteria of the referenced standards and the requirements of the specific certification program.

8. References

PCR 2015, Part A, version 1.4
Institut Bauen und Umwelt e.V., Berlin (pub.): Product Category Rules for Construction 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 Project ReportRequirements on the Background Report. September 2015 (www.bau-umwelt.de)

PCR 2015, Part B
Institut Bauen und Umwelt e.V., Berlin (pub.): PCR Guidance-Texts for Building-Related
Products and Services
From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU)
Part B: Requirements on the EPD for Floor coverings
June 2015
www.bau-umwelt.de

ANSI/BIFMA X7.1
ANSI/BIFMA X7.1 Standard for Formaldehyde and TVOC Emissions

ANSI/BIFMA e3
ANSI/BIFMA e3 Furniture Sustainability Standard and Tools

ISO 9239-1
ISO 9239-1:2010 - Reaction to fire tests for floorings -- Part 1: Determination of the burning behaviour using a radiant heat source

ISO 10874
ISO 10874:2009 - Resilient, textile and laminate floor coverings -- Classification

ISO 11925-2
ISO 11925-2:2010 - Reaction to fire tests -- Ignitability of products subjected to direct impingement of flame -- Part 2: Single-flame source test

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

ISO 16000-9
ISO 16000-9:2006 - Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing -- Emission test chamber method

ISO 23997
ISO 23997:2007- Resilient floor coverings -- Determination of mass per unit area

ISO 24336
ISO 24336:2005 - Laminate floor coverings - Determination of thickness swelling after partial immersion in water

ISO 24346
ISO 24346:2006 - Resilient floor coverings -- Determination of overall thickness

ISO 24340

ISO 24340:2006 - Resilient floor coverings -- Determination of thickness of layers

ISO 24342
ISO 24342:2007 - Resilient and textile floor-coverings -- Determination of side length, edge straightness and squareness of tiles

BS EN 424
BS EN 424:1993 - Resilient floor coverings. Determination of the effect of the simulated movement of a furniture leg

BS EN 669
BS EN 669:1998 - Resilient floor coverings. Determination of dimensional stability of linoleum tiles caused by changes in atmospheric humidity

EN 13329
EN 13329:2000 - Laminate floor coverings. Specifications, requirements and test methods

EN 13501-1
EN13501-1:2007:Fire classification of construction products and building elements-Part1: Classification using data from reaction to fire tests

EN 13893
EN 13893:2002 - Resilient, laminate and textile floor coverings. Measurement of dynamic coefficient of friction on dry floor surfaces

EN 14041
EN 14041:2004 - Resilient, textile and laminate floor coverings – Essential characteristics

EN 14085
EN 14085:2010 - Resilient floor coverings - Specification for floor panels for loose laying

BS EN 16449:2014
Wood and wood-based products. Calculation of the biogenic carbon content of wood and conversion to carbon dioxide

EN 1815
EN 1815:1998 - Resilient and textile floor coverings. Assessment of static electrical propensity

DIN EN 717-1
DIN EN 717-1:2005 - Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by the chamber method

BS EN 672:1997
BS EN 672:1997 - Resilient floor coverings. Determination of apparent density of agglomerated cork

ISO 24343-1:2007
ISO 24343-1:2007 - Resilient and laminate floor coverings -- Determination of indentation and residual indentation -- Part 1: Residual indentation

ISO 23999:2008
ISO 23999:2008 - Resilient floor coverings -- Determination of dimensional stability and curling after exposure to heat

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Institut Bauen und Umwelt e.V.
Panoramastr. 1
10178 Berlin
Germany

Tel +49 (0)30 3087748- 0
Fax +49 (0)30 3087748- 29
Mail info@ibu-epd.com
Web **www.ibu-epd.com**

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

Tel +49 (0)30 - 3087748- 0
Fax +49 (0)30 – 3087748 - 29
Mail info@ibu-epd.com
Web **www.ibu-epd.com**

Author of the Life Cycle Assessment
S+A Green Lab
Avenida Infante Santo, 69 a-c
1350- 177 Lisboa
Portugal

Tel +351 213 939 340/9
Fax +351 217 120 511
Mail mmatos@greenlab.com.pt
Web **www.saraivaeassociados.com/pt/green-lab/**

Owner of the Declaration
Amorim Revestimentos, S. A.
Rua do Ribeirinho, nº202, Apartado 13
4536 - 907 S. Paio de Oleiros
Portugal

Tel +351 227 475 600
Fax +351 227 475 601
Mail geral.ar@amorim.com
Web **www.wicanders.com**