

Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

Direct Pressure Laminate Floor Covering

From ***Financiera Maderera S.A.***

Finsa

Programme:	The International EPD® System, www.environdec.com
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>PCR 2019:14 Construction products (EN 15804:A2) Version 1.3.3. c-PCR-006 Wood and wood-based products for use in construction (EN 16485)</i>
PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact..
Life Cycle Assessment (LCA)
<i>Ingurumenaren Kideak Ingeniería (IK ingeniería) ik@ik-ingenieria.com</i>
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by individual verifier Third party verifier: Anxo Mourelle Álvarez. EPD Verifier. Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Financiera Maderera S.A.

Description of the organisation:

Tradition and innovation

Finsa is a pioneering company in manufacturing particle chipboards and MDF boards on the Iberian Peninsula.

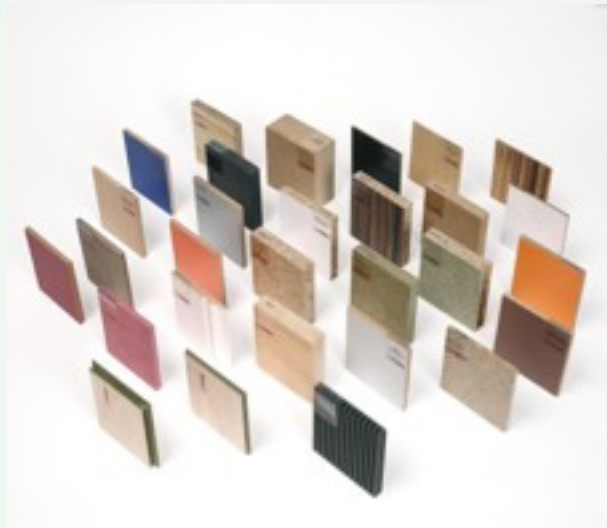
The company, founded in 1931 as a small sawmill, has kept up sustainable growth even since.

FINSA currently manufactures a wide variety of wood-based products. Over the last few years, investment has focused mostly on expanding the company's international presence and on increasing its production capacity, especially in products with high added value within the technical wood processing chain: particle chipboards and melamine-coated MDF boards, plywood, veneered wood, frames, kitchen modules, components for furniture, laminate floors, etc. Thanks to this, FINSA is now a world leader in the sector.

With great enthusiasm grounded in years of experience in the development of wood-based products, we would like you to take advantage of the opportunity to use technical wood boards in your projects and share our investment in the future of this material.

Entrepreneurial experience

Backed by 60 years dedicated to wood-based products, we are one of the leading companies in Europe. We have twenty production centres and the most advanced technology in order to ensure the highest



level of quality.



Scope of application of the Declaration

The present document applies to the laminate floor covering, manufactured by the Finsa Group.

The laminate floor covering described in this EPD has a thickness between 6 mm and 12 mm and meets the requirements of the EN14041:2006 and the use classes between 31 and 34 according to EN 13329 and EN ISO 10874.

The products are available under following brandnames: Finfloor, Purefloor, Artens by Finsa, Designers, DIY, Sequoia by Finsa, Trucor Timber by Finsa, Gold Laminate by Finsa, Medfloor by Finsa, West Coast by Finsa, Grandeur Flooring by Finsa.

The EPD was created according to the specifications of EN 15804+A2.

Name and location of production site(s):

FINANCIERA MADERERA S.A.
Polígono Industrial de Rábade (Apdo. 6)
27370 Rábade (Lugo)

Contact:

Pablo Figueroa López
FINSA Executive Committee

Product information

Product name: DPL (Direct Pressure Laminate) floor covering

Product description:

DPL (Direct Pressure Laminate) floor coverings described in this EPD are produced by FINSA group. The floor coverings meet the requirements of EN 13329.

DPL laminate floorings are made up of several 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 fibreboard 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.

Laminate floor covering is made up from MDF. The laminate floorboards are fixed together without the need for glue or other external elements. This is an ingenious system which, by milling the edges of the floorboards, allows them to fit together as if they were the pieces of a jigsaw puzzle. This adhesive-free fixing system, called "click", allows the laminate floor to be installed on practically any material (concrete, wood, tile, ceramic...) without the need to fix it to the existing floor.

Laminate floors are differentiated products in several layers that comply with the standards EN 14041/EN 12501, EN 13329, EN 1815 and EN ISO 10874. Likewise, technologies such as EP 0 843 763 - US 6 006 486 are used for the “click system”.

Planned applications:

Laminate floor coverings are a versatile and durable option for covering surfaces in all types of spaces. With a homogeneous composition, they offer optimal results in terms of resistance and stability. Their ability to maintain their shape and dimensions, even in the face of changes in ambient humidity and temperature, makes them a reliable choice for various applications.

Thanks to their laminate design, the floors offer a wide range of possibilities in terms of finishes and coatings, which translates into high quality of the final product and greater efficiency in terms of installation and maintenance. With the appropriate treatment, they become the ideal support for creating floors in homes, offices and commercial spaces.

In thinner thicknesses, laminate floor covering exhibit high density and excellent coating capacity that makes them easy to install and adapt to different environments. Their homogeneity and dimensional stability make them the perfect choice for a variety of applications, from shelving to wall coverings.

Furthermore, laminate floor covering is widely used in various industries, including furniture manufacturing, construction of curved structures, and packaging creation. Their versatility makes them a popular choice for a variety of projects, from decorative elements to more complex architectural applications.

For all these reasons, laminate floor coverings are a highly functional and aesthetic option for a variety of applications, offering durability, resistance and versatility in use.

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: between 31 and 34 according to *EN 13329* and *EN ISO 10874*.

Technical Data

For products with CE marking, the technical specifications must be specified in accordance with information in the declaration of performance.

Main product standards

- UNE-EN 13329:2016+A1:2017. Laminate floor coverings - Elements with a surface layer based on aminoplastic thermosetting resins - Specifications, requirements and test methods.
- UNE-EN 14041:2018. Resilient, textile, laminate and modular multilayer floor coverings - Essential characteristics.
- UNE-EN 13501-1:2019. Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests.
- UNE-EN 1815:2017. Resilient and laminate floor coverings - Assessment of static electrical propensity.
- UNE-EN ISO 10874:2012. Resilient, textile and laminate floor coverings - Classification (ISO 10874:2009).

Product-related or management system-related certifications:

- EU Ecological Label (Ecolabel): voluntary seal of environmental excellence for products or services that guarantees that high ecological standards are met throughout the life cycle of the product.
- Certification of chain of custody PEFC (PEFC/14-35-00006),
- Certification of chain of custody FSC® (FSC-C041397).

- Certification ISO 38200.
- EN ISO 14001 – IQNet & AENOR.
- Carb2 Certification: which regulates the emission of formaldehyde in wood composite products.
- Environmental label A+ indoor air emissions (emissions dans l'air intérieur): it is awarded to those construction materials that contribute to a healthy and environmentally friendly habitat. It is classified into four levels, with A+ being the best.
- Cradle to cradle certified: is the global standard for products that are safe, circular and responsibly manufactured.
- Bfl-s1 Certification: reaction to fire, the product is flame retardant.

Manufacturing process.

Extraction and origin of raw materials:

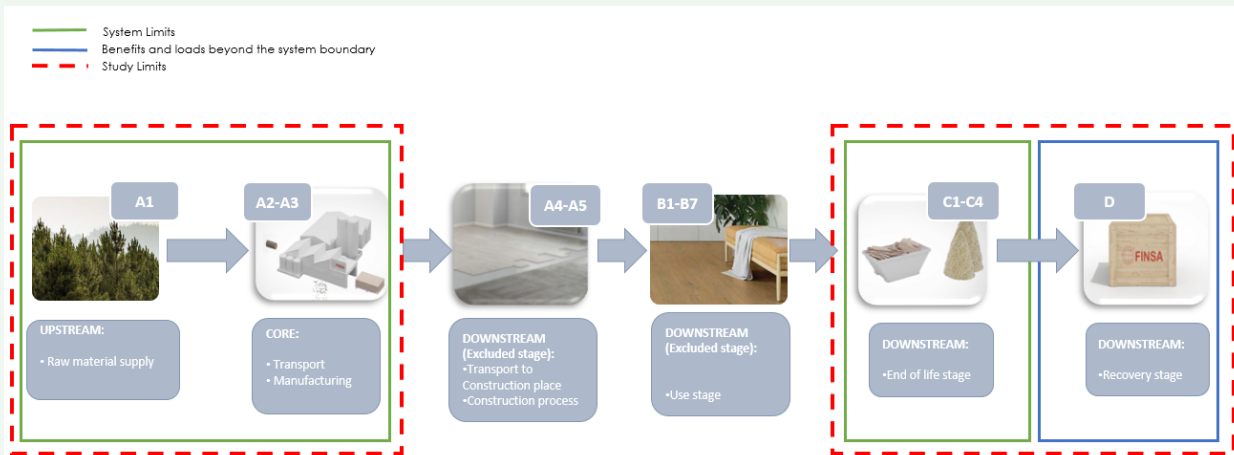
Wood comes predominantly from regional forest areas. This wood comes from woods situated within a radius of approx. 100 km from the production site. Transportation distances tend to be small in order to keep logistics costs as low as possible with the purchase of raw materials. Preference is given to woods certified according to the FSC or PEFC standards in the wood selection process.

The process starts with manufacture of MDF:

1. Debarking the wood trunks.
2. Chipping and grinding the wood.
3. Cleaning the wood chips and the feeding system from the wood storage.
4. Steam digestion of wood chips.
5. Refining and de-fibering.
6. Bonding the fibres with resins.
7. Drying the fibres
8. Transportation and internal storage of fibres.
9. Formation of fibre sheets.
10. Compressing the fibre sheets using continuous hot pressing.
11. Cutting and edging the fibre strips in order to obtain the required board sizes.
12. Sanding the upper and lower surfaces.
13. Intermediate storage and packing.
14. Pressing

Starting from the laminated MDF board, the following stages are added to reach the laminate floor:

1. Division of the board into smaller formats.
2. Calibrated: Calibrated sanding ensures a flat surface and a defined thickness.
3. Surface control: to detect possible defects
4. Strip cutting: the board is divided into individual floor elements and then profiled.
5. Profiling: the floor element is profiled in longitudinal and transverse directions.
6. Final check: The last step before packaging is a final check.
7. Packaging



All waste generated during the production process (waste from cutting the boards, chip waste, and debarking or sanding waste) and which can no longer be reused in the process, is, without exception, forwarded to a thermal reusing process. It is kept in storage in the wood park and fed from the wood park along with the stored material that was purchased in the market.

LCA information

Declared unit:

For this EPD, the concept of "unit declared" applies instead of "functional unit", following the guidelines established in the reference PCR.

The present declaration refers to the manufacture of “1 m³ of direct pressure laminate (DPL) floor covering”.

The average density is 840 kg/m³ (± 20 Kg, with humidity of around 7 %).

Construction data:

Name	Value	Unit
Product maximum thickness	7	mm
Product minimum thickness	12	mm
Product minimum mass (7mm)	6.0	kg/m ²
Product maximum mass(12mm)	10.8	kg/m ²
Abrasion class	AC4-AC6	-
Product form	Panel	-
Density	840	kg/m ³

Delivery status:

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

- 1331x194x7
- 1331x194x8
- 1310x132x8
- 1310x240x8
- 1780x246x10
- 1331x194x12

System limits:

The limits that have been selected for the system cover the manufacture of laminate flooring including the production of raw materials up to the point of the final packed product at the factory gate (life cycle designated from cradle to gate with C1-C4 and D).

The Ecoinvent database was consulted throughout the whole life cycle analysis.

The processes observed in detail were as follows:

- The forest stage, for wood procurement and transportation.
- The transportation of all relevant raw materials for the process.
- The manufacturing process of laminate flooring.
- The packing process and thermal use as the final closure of the life cycle.
- Infrastructure processes fall outside the scope of the system.

The stage related to the use of laminate flooring has not been researched in the present declaration. The end of the life cycle scenarios is explained in detail in the point '*LCA Scenarios and additional technical information*'.

Note on the stage of use: the conditions of use, as well as any possible uncommon effects associated with it, were not studied when valuing the life cycle analysis.

Inclusion of transportation and logistics:

The transportation of raw materials and secondary materials that were used, as well as the transportation of the waste that was generated, were also included in the study.

Time representativeness:

The data used refers to actual production processes during the fiscal year from 01/01/2020 to 31/12/2020. The life cycle evaluation was prepared for Spain as the area of reference.

Database(s) and LCA software used:

All the data used to model the process and obtain the Life Cycle Inventory are specific data and have been obtained by measurements made during the year 2020. They are representative of the different processes implemented during the manufacturing process. The data has been measured directly at production factories. In addition, the most complete and highest quality European life cycle inventory database, Ecoinvent 3.9, has been used, as this database contains the most extensive and updated information and its scope coincides with the geographical, technological and temporal area of the project. The LCA was modelled with Simapro 9.5.0.1. Characterization factors from EN15804: 2012 + A2:2019. The geographical coverage is international. Technological coverage is typical or average.

Description of system boundaries:

According to the standard EN 15804:2012+A2:2019/AC:2021 and PCR 2019:14 CONSTRUCTION PRODUCTS (version 1.3.3) the system boundary is cradle to gate with modules C1–C4 and module D (A1–A3 + C + D). The life cycle stages A4-A5, B1-B7 were excluded from the LCA study.

Data quality:

The data used are less than 5 years old. In accordance with the PCR, in modules (A1-A3) specific data is use. This data has been obtained by measurements made during the year 2020. A data quality assessment on applied datasets has been performed in accordance with EN 15804:2012+A2:2019/AC:2021, Annex E.

Assumptions:

The modularity principle, as well as the polluter-payer principle have been followed. The following assumptions have been made in this EPD:

- ✓ It does not include the manufacturing processes of the capital goods or spare parts and/or maintenance with a life of more than three years.
- ✓ The environmental impact of infrastructure for general management, office, and headquarters operations is not included.
- ✓ The impact caused by people (common activities, travel for work...) will not be considered. } It does not include the consumption of natural gas for sanitary hot water from showers and heating system for the comfort of people.
- ✓ The processes associated with fuel production are intrinsically included in the indicators in ECOINVENT's database used in carrying out the LCA.
- ✓ The environmental impact of external transport has been calculated using lorries from the ECOINVENT 3.9 database, EURO 6. These lorries have been selected to reflect the most realistic scenario possible.
- ✓ Long-term emissions have been excluded.
- ✓ The invoices from the power supply companies were considered for calculating the power supply used in the manufacturing process.
- ✓ All waste that is generated during production and which cannot be re-circulated into the process (cutting and milling waste) is sent to be used as fuel for the biomass boiler.

Cut-off rules:

The standard ISO 14025 and the PCR -"2019:14 CONSTRUCTION PRODUCTS" indicate that the life cycle inventory data should include a minimum of 95% of the total inputs (materials and energy) for each stage. This cut-off rule does not apply for hazardous materials and substances. No such cut-off criteria have been taken into account in this study.

Allocation

Where necessary, such as auxiliary materials, water, waste generation, emissions and energy consumption, an allocation based in mass has been used.

Greenhouse gas emission from the use of electricity in the manufacturing phase

Specific electricity mix (residual from trading company) is based in the year 2020. The direct emissions and losses in grid are considered.

Electricity mix	Amount	Units
Specific electricity mix	5,15E-01	Kg CO ₂ -eqv/kWh

LCA Scenarios and additional technical information

Dismantling/demolition (module C1):

Since they are not products with a structural use, the energy consumption of this phase is considered not relevant.

Transport (module C2):

With a collection rate of 100%, the transports are carried out by lorry (EURO 6) over 50 km.

Waste processing (modules C3 and C4):

A recycling ratio of 80,4 %, energy recovery ratio of 6,1 %, incineration ratio of 12,0 % and a landfilled ratio of 0,9% is considered in accordance with the publication of the H2020 project "Absorbing the Potential of Wood Waste in EU Regions and Industrial Bio-based Ecosystems — BioReg" document "D1.1 EUROPEAN WOOD WASTE STATISTICS REPORT FOR RECIPIENT AND MODEL REGIONS" for Europe

(<https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5bf1792ce&appId=PPGMS>). These percentages are representative of the areas where the product is marketed.

In module C3, the board's waste treatment (chipping) is considered. In module C4 the impact of incineration process and the landfilling.

Recyclability potentials (module D):

Module D contains credits from the recycling and energy recovery of the boards in module C3. For the recycling process is considered that the board is collected and recycled for use in substitution of virgin wood chips. For energy recovery, use in substitution of natural gas, to produce heat and electricity.



Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X	
Geography	ES	ES	ES	ND	ND	ND	ND	ND	ND	ND	ND	ND	EU	EU	EU	EU	EU	
Specific data used	>90%					-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	No applicable					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	No applicable					-	-	-	-	-	-	-	-	-	-	-	-	-

Content information

The content information per 1m³ is as follows:

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-% ang kg C
Wood	705,60	0,00%	100,00%-356 kg C
Resin	67,20	0,00%	0,00%
Water	58,80	0,00%	0,00%
Paraffin emulsion	3,36	0,00%	0,00%
Impregnated paper	5,04	0,00%	0,00%
TOTAL	840,00	0,00%	84,00%-299 kg C
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood	25,77	3,07%	
Cardboard	19,42	2,31%	
Plastic	3,56	0,42%	
TOTAL	22,98	2,74%	

Packaging: The product is transported to the customers protected cardboard, plastic and wood. The laminate floorings are unit-packed and edge-protected using cardboard boxes (5 sided) and shrink-wrapped in foil. Laminate floor coverings are intended for use as floor covering within a building.

No substances included in the Candidate List of Substances of Very High Concern for authorization under REACH Regulations are present in the laminate flooring manufactured by FINSA, either above the threshold for registration with the European Chemicals Agency or above 0,1% (wt/wt).

Product processing/Installation

Laminate floor coverings are generally installed floating. 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 and/or protection against rising dampness.

Reference service life

The BBSR Table gives a general useful life of 20 years for floor coverings of component group 352.711. Due to the comparatively high resistance of laminate floors, Finsa grants a specific guarantee identified by declared product brand (according to the manufacturer's warranty conditions). In order to increase the life duration of the floor covering, the manufacturer's instructions concerning warranty and care must be followed.

Re-use phase and End of life

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

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804:2012+A2:2019

The following table shows the absolute contributions from manufacturing 1 m³ of laminate flooring:

The use of the results of modules A1-A3 without taking into account the results of module C is discouraged. The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

Results per declared unit-1 m ³ laminate flooring							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	5,39E+02	0,00E+00	8,41E+00	6,10E+00	1,05E+00	-1,71E+02
GWP-biogenic	kg CO ₂ eq.	-1,08E+03	0,00E+00	2,82E-03	9,49E+02	1,48E+02	-1,93E+01
GWP-luluc	kg CO ₂ eq.	9,54E-01	0,00E+00	4,10E-03	1,47E-02	3,43E-04	-6,13E-01
GWP-total	kg CO ₂ eq.	-5,40E+02	0,00E+00	8,42E+00	9,55E+02	1,49E+02	-1,91E+02
ODP	kg CFC 11 eq.	1,59E-05	0,00E+00	1,91E-07	1,09E-07	4,93E-08	-5,03E-06
AP	mol H ⁺ eq.	1,98E+00	0,00E+00	2,08E-02	3,04E-02	3,18E-02	-1,46E+00
EP-freshwater	kg P eq.	1,58E-02	0,00E+00	7,05E-05	5,79E-04	1,95E-05	-1,26E-02
EP-marine	kg N eq.	1,16E+00	0,00E+00	5,56E-03	4,28E-03	1,53E-02	-4,12E-01
EP-terrestrial	mol N eq.	5,80E+00	0,00E+00	5,82E-02	4,92E-02	1,71E-01	-5,59E+00
POCP	kg NMVOC eq.	3,08E+00	0,00E+00	3,40E-02	1,63E-02	4,61E-02	-1,49E+00
ADP-minerals&metals*	kg Sb eq.	2,29E-03	0,00E+00	2,35E-05	1,34E-05	2,47E-06	-6,92E-04
ADP-fossil*	MJ	1,21E+04	0,00E+00	1,28E+02	1,36E+02	1,21E+01	-3,04E+03
WDP*	m ³	4,42E+02	0,00E+00	6,10E-01	1,42E+00	2,71E-01	-1,71E+02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						

*Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit-1 m³ laminate flooring

Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	5,56E+02	0,00E+00	8,42E+00	6,15E+00	1,91E+00	-1,91E+02
PM	disease inc.	4,63E-05	0,00E+00	8,30E-07	1,13E-07	2,71E-07	-2,56E-05
IR ²	kBq U-235 eq	6,33E+01	0,00E+00	6,14E-02	1,21E+00	1,32E-02	-1,04E+01
ETP-fw*	CTUe	2,05E+03	0,00E+00	6,14E+01	1,83E+01	1,44E+01	-6,67E+02
HTP-c*	CTUh	2,50E+01	0,00E+00	3,74E-09	5,63E-08	6,01E-08	-2,66E-06
HTP-nc*	CTUh	2,72E-06	0,00E+00	9,13E-08	3,75E-09	2,98E-08	-1,05E-06
SQP*	Pt	3,68E+05	0,00E+00	1,30E+02	2,14E+01	9,64E+00	-3,49E+04
Acronyms	<i>PM= Potential incidence of disease due to PM emissions; IRP= Potential Human exposure efficiency relative to U235; ETP-fw= Potential Comparative Toxic Unit for ecosystems; HTP-nc= Potential Comparative Toxic Unit for humans, non-cancer; HTP-c= Potential Comparative Toxic Unit for humans, cancer; SQP= Potential Soil Quality Index.</i>						

*Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Use of resources

Results per declared unit- 1 m ³ laminate flooring							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
PERE	MJ	4,07E+04	0,00E+00	1,87E+00	1,15E+04	1,78E+03	-7,49E+03
PERM	MJ	1,32E+04	0,00E+00	0,00E+00	-1,14E+04	-1,78E+03	0,00E+00
PERT	MJ	5,40E+04	0,00E+00	1,87E+00	2,57E+01	5,57E-01	-7,49E+03
PENRE	MJ	1,07E+04	0,00E+00	1,28E+02	1,32E+03	1,97E+02	-3,04E+03
PENRM	MJ.	1,37E+03	0,00E+00	0,00E+00	-1,19E+03	-1,85E+02	0,00E+00
PENRT	MJ	1,21E+04	0,00E+00	1,28E+02	1,36E+02	1,22E+01	-3,04E+03
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	5,42E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,41E+01
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,05E+01	0,00E+00	2,00E-02	1,06E-01	5,18E-02	-4,68E+00
Acronyms	<i>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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</i>						

Waste production and output flows

Waste production

Results per declared unit- 1 m ³ laminate flooring

¹ The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

² 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 considered effect due to It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator

Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed	kg	3,42E+01	0,00E+00	7,93E-04	1,90E-04	6,35E-05	-1,05E-02
Non-hazardous waste disposed	kg	8,99E+01	0,00E+00	1,12E+01	7,50E-01	1,33E+01	-2,23E+01
Radioactive waste disposed	kg	4,06E-02	0,00E+00	3,89E-05	9,68E-04	8,21E-06	-8,19E-03

Output flows

Results per declared unit-1 m ³ laminate flooring							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	2,76E+00	0,00E+00	0,00E+00	6,76E+02	0,00E+00	0,00E+00
Materials for energy recovery	kg	5,01E+02	0,00E+00	0,00E+00	5,14E+01	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,57E+02
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,62E+03

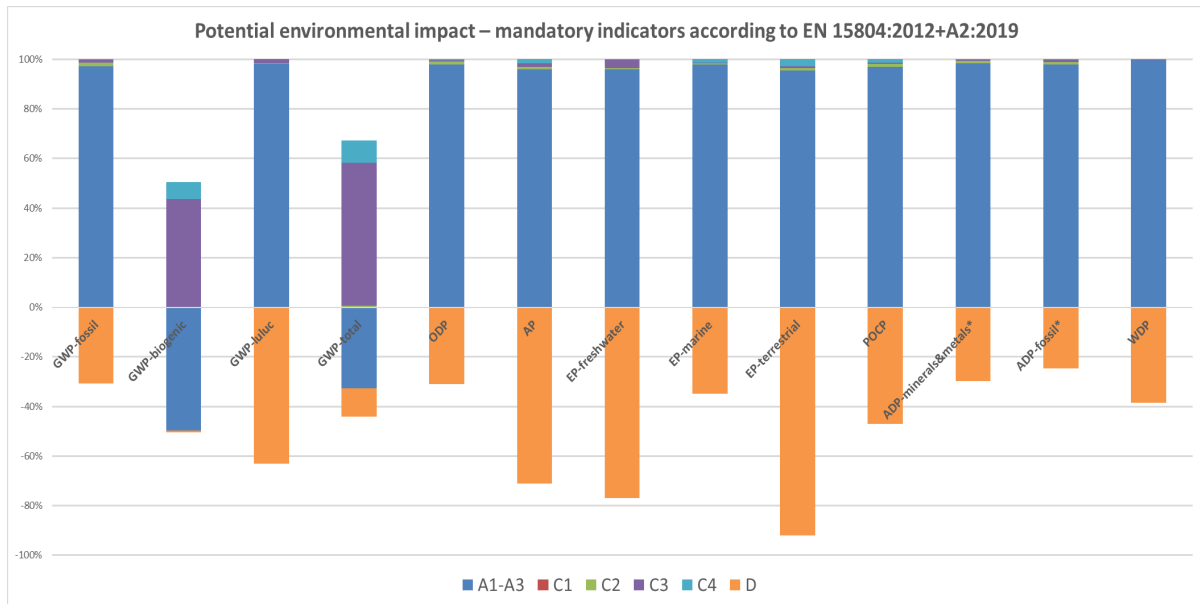
Information on biogenic carbon content

Results per declared unit-1 m ³ of laminate flooring		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	2,99E+02
Biogenic carbon content in packaging	kg C	1,96E+01

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



LCA Interpretation



The most significant environmental impacts are caused during production (modules A1-A3) followed in some cases (GWP-biogenic and GWP-total) by module (module C3). All the other modules related to the product life cycle are not significant.

Benefits and loads beyond the system boundary (module D) vary from 92% (EP-terrestrial) to about 1% (GWP-biogenic) of the impacts over the product life cycle (modules A-C), and are derived from recycling and energy recovery of the product at its end of life.

Additional environmental information

The results are calculated for 1 m³ of laminate flooring with an average density of 840 kg/m³ (± 20 Kg, with relative humidity of around 7 %). To convert the declared results to results for 1m², depending on the thickness, use the following conversion factors:

Thickness	1m ³ ->1m ²	Kg/m ²
6mm	x 0,006	5,04
7mm	x 0,007	5,88
8mm	x 0,008	6,72
10mm	x 0,010	8,4
12mm	x 0,012	10,08

The technical datasheet can be found in the following webpage: <https://www.finsa.com/es/>

Information related to Sector EPD

This is an individual EPD®.

Differences versus previous versions

This is the first version of the EPD

References

- General Programme Instruction of the International EPD®System. Version 4.0.
- ISO 14020:2000 Environmental labels and declarations-General principles.
- ISO 14025:2010 Environmental labels and declarations-Type III Environmental Declarations Principles and procedures.
- ISO 14040:2006 Environmental Management-Life Cycle Assessment-Principles and framework.
- ISO 14044:2006 Environmental Management-Life Cycle Assessment-Requirements and guidelines.
- PCR 2019:14 Construction products (EN 15804: A2) version 1.3.3
- EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works-Environmental Product Declarations-Core rules for the product category of construction products
- c-PCR-006 Wood and wood-based products for use in construction (EN 16485)
- EN 622-1:2004 - Fibreboards. Specifications. Part 1: General requirements.
- EN 622-5:2010 - Fibreboards. Specifications. Part 5: Requirements for fibreboards manufactured using dry processes (MDF).
- EN 14322:2017 Wood-based panels. Melamine faced boards for interior uses. Definition, requirements and classification.
- EN 13501-1:2019 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
- EN 13986:2006+A1:2015 - Wood-based panels for use in construction. Characteristics, evaluation of conformity and marking.
- EN 16449:2014 Wood and wood-based products - Calculation of the biogenic carbon content of wood and conversion to carbon dioxide.
- EN ISO 14001:2015 Environmental Management Systems. Requirements with instructions for use.
- EN 12460-5:2016 Wood-based panels - Determination of formaldehyde release - Part 5: Extraction method (called the perforator method)
- ASTM E 1333-96 (2002) Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber
- European Timber Regulation (EUTR) UE 995/2010
- ISO 38200:2018 Chain of custody of wood and wood-based products.
- Non-financial information statement
- EN ISO 10874:2012. EN ISO 10874:2012/A1:2021 Resilient, textile and laminate floor coverings - Classification
- EN 14041:2004. EN 14041:2004 AC 2006 – Resilient, textile, laminate and modular multilayer floor coverings - Essential characteristics
- Resilient, textile and laminate floor coverings
- EN 13329:2016. EN 13329:2016+A2:2021. Laminate floor coverings - Elements with a surface layer based on aminoplastic thermosetting resins - Specifications, requirements and test methods