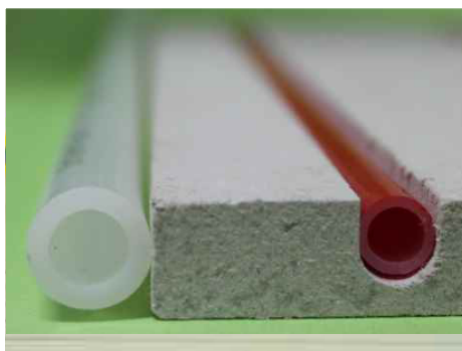




# ENVIRONMENTAL PRODUCT DECLARATION

*In accordance with ISO 14025 and EN 15804*

## EcoFloor Plus Underfloor Heating System



Programme:

Programme operator:

EPD registration number:

Publication date:

Valid until:

Scope of the EPD®

The International EPD® System, [www.environdec.com](http://www.environdec.com)

EPD International AB

S-P-03087

2021-03-19

2026-03-18

Global





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## ENVIRONMENTAL PRODUCT DECLARATION DETAILS

Programme information	
<b>Programme Operator:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
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PCR Information	
CEN standard EN 15804+A1:2013 serves as the Core Product Category Rules (PCR)	
<b>Product category rules (PCR):</b>	PCR 2012:01, Version 2.33 “Construction Products and Construction Services” UN CPC code 3753 “Articles of plaster or of compositions based on plaster”
<b>PCR review was conducted by:</b>	IVL Swedish Environmental Research Institute, Secretariat of the International EPD System Appointed PCR Moderator Martin Erlandsson IVL Swedish Environmental Research Institute (email: martin.erlandsson@ivl.se)
Independent third-party verification of the declaration and data, according to ISO 14025:2006: <input type="checkbox"/> EPD process certification <input checked="" type="checkbox"/> EPD verification	
<b>Third party verifier:</b>	 Dr. Nikolay Minkov <b>greenzero.me</b> GmbH ( <a href="https://www.greenzero.me">https://www.greenzero.me</a> ) Contact: nikolay.minkov@greenzero.me
<b>Approved by:</b>	The International EPD® System

LCA information	
<b>Background LCA Report prepared by:</b>	 <b>LyCIS.HMCS Group</b> Dr. Giannopoulos Dimitrios Dr. Stamatiadou Marianna Dr. Bonou Alexandra
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<b>Company Information</b>		
<b>Owner of EPD:</b>	<b>INTERPLAST</b>	
<b>Contact and location of production site:</b>	<i>Plastics factory</i> Industrial area of Komotini, 69100 Komotini, Greece  +30 25310.38811-2 +30 25310.38700 +30 25310.98720	<i>Brass products Factory</i> Kefalovrisou 23, 13 677 st. Monopati, Acharnai, Athens, Greece  +30 210.6209909-10, +30 210.620 44 00
<p><b>INTERPLAST</b> manufactures plastic pipes and fittings to the very highest specifications, for use in water supply, heating and sewerage systems and covering a broad range of applications in the areas of house construction, technical projects and industrial facilities. The company aims to design, develop and market products and integrated solutions that cover the needs of modern construction and improve quality of life, by building a relationship of trust between the technical world and the consumer public.</p>		
<b>Product-related or management system-related certifications:</b>	<ul style="list-style-type: none"> <li>• TUV Germany for the Quality Management System EN ISO 9001:2015. ELOT EN ISO14001:2015 and ELOT EN ISO50001:2018 by IQNET</li> <li>• EVETAM Greece for the physical and mechanical properties of pipes PE-X, PERT, PP-H, PVC, PP-R and PP-RCT with or without Glass fibres. It involves sizing of pipes and fittings, measuring the degree of networking for PEX pipes, microscopic homogenisation check, impact tests, testing under pressure at various temperatures and checking linear expansion.</li> <li>• SKZ Germany for physical and mechanical properties of pipes PE-X, PE-MDX, PE-RT, PB, PP- H and PP-R. Moreover, sewer pipes PP-H feature fireproofing certificate. It involves sizing of pipes and fittings, measuring the degree of networking for PEX pipes, microscopic homogenisation check, impact tests, testing under pressure at various temperatures and checking linear expansion.</li> <li>• SKZ Germany for physical and mechanical properties of PP-R accessories.</li> <li>• AENOR Spain for physical and mechanical properties of PEX pipes and PPR.</li> <li>• CSA Canada for physical and mechanical properties of pipes PE-X, as for the suitability for drinking water.</li> <li>• GOST Russia for physical and mechanical properties of pipes PE-X, PP-R, PP-R with aluminum and brass fittings, and for suitability for drinking water</li> <li>• SEPRO Ukraine the physical and mechanical properties of pipes PE-X, PP-R, PP-R with aluminum, PP-H and brass components.</li> <li>• ZIK Croatia the physical and mechanical properties of pipes PE-X, PP-R, PP-R aluminum, as for the suitability for drinking water.</li> <li>• MPA-NRW Germany for oxygen permeability of Como-Pex pipes and Como-Floor Oxygen Barrie</li> <li>• WRAS-NSF Great Britain for suitability of pipes PE, PEX and PP-R in drinking water</li> <li>• ICC-ES PMG USA Product Certificate for PE-X and PP-RCT pipes and fittings</li> <li>• KIWA Nederland for determination of the oxygen permeability of PP-R and PE-RT pipes.</li> </ul>	

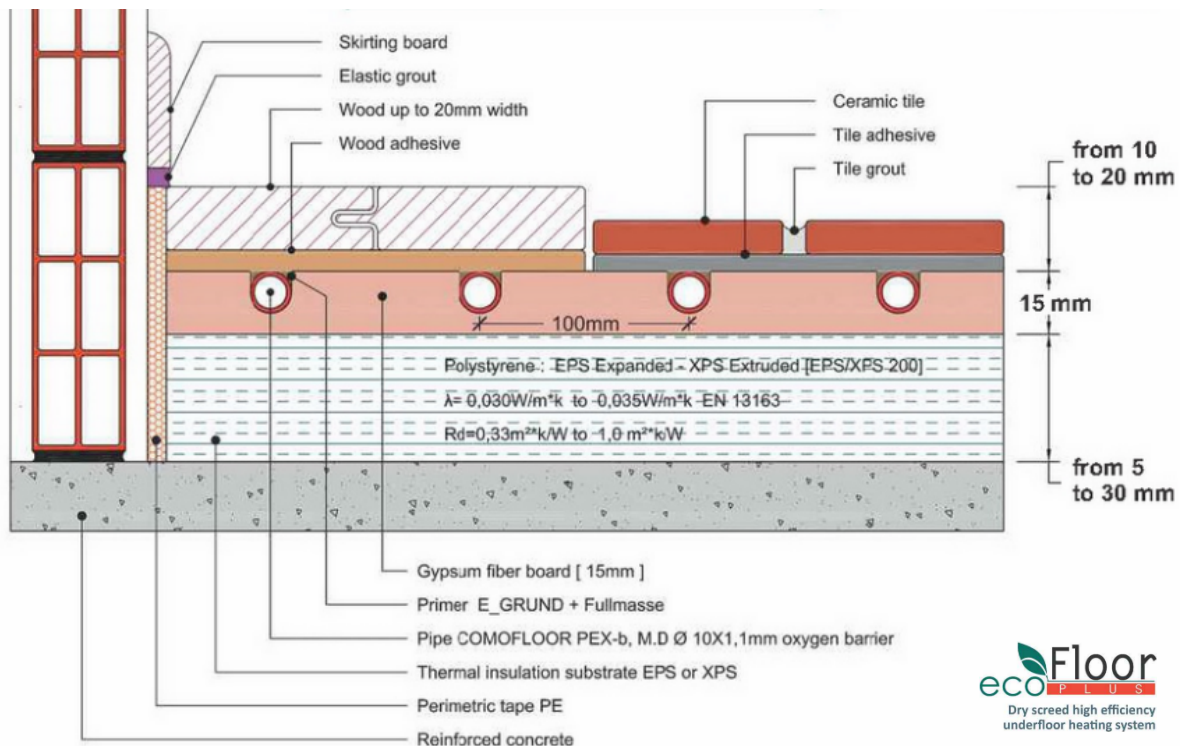
The EPD owner has the sole ownership, liability, and responsibility for the EPD. **PRODUCT INFORMATION**

## Product Name and Description

The INTERPLAST product declared in this EPD is the “EcoFloor Plus” system which combines a special gypsum fiberboard with under floor heating system. This new low profile, dry screed under-floor heating is designed and developed for higher energy efficiency and water savings. The analyzed product system includes:

- Thermal insulation
- Gypsum fiberboard
- Piping system: PE-RT or PEX Ø10 x 1,1mm pipe which is utilized to transport hot and cold water for underfloor heating applications.
- Other components (filling, primer, perimetric tape, pipe fittings and manifolds)

The modularity of EcoFloor allows for flexibility both in terms of insulation layer thickness, of insulation materials and in terms of pipe materials.



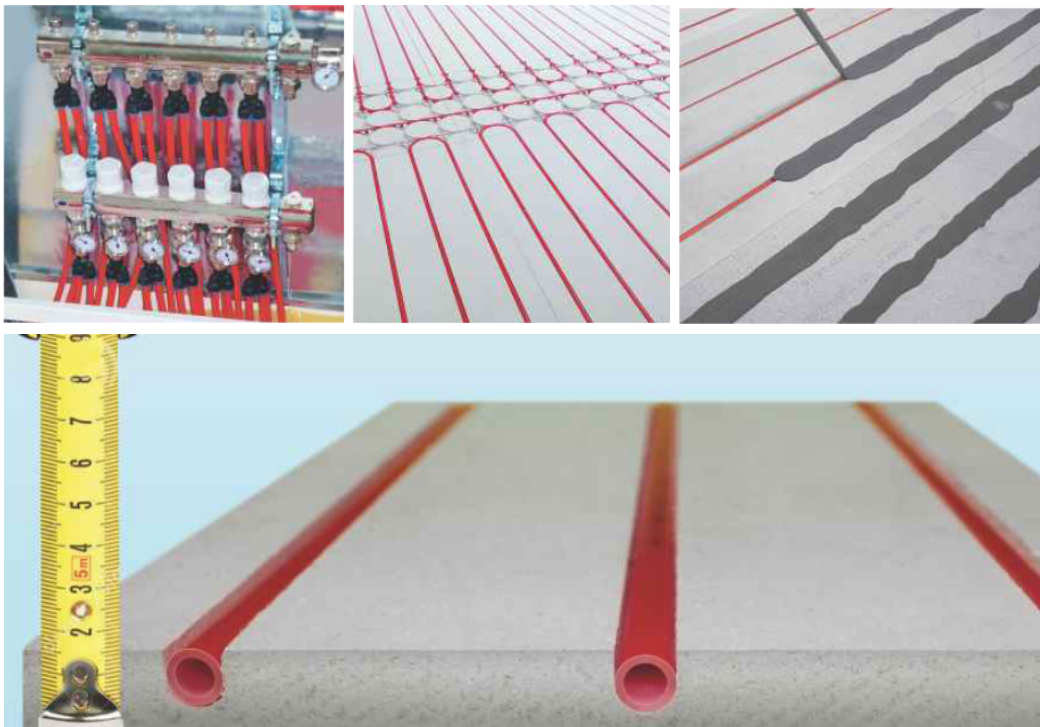
## Advantages of EcoFloor Plus

- System height from 3,2 to 5cm including the final floor. Basic feature of the system is the special gypsum fiberboards which are produced under pressure from special gypsum which is reinforced with cellulose fibers and specially processed with hydrophobic additives for moisture resistance.
- Ideal system for insulating building floors from air carried sounds.
- Ability of placing any final floor.
- Ideal system for old and new residences.

- Flexible PEX or PE-RT 10mm pipe with, featuring:
  - Increased mechanical strength, elasticity by 10%, yield stress by 10%
  - Decrease of inertia phenomenon during the start of the system. It distributes heat 8% quicker than the typical heating radiators.
  - Operation cost savings due to the high thermal conductivity of the pipes. Compared to the typical under-floor heating systems it saves up to 20% energy and 50% compared to the heating radiators.
- The new system achieves almost the same heat output per square meter with the typical under-floor heating systems and, while containing 60% less water in its hydraulic network.
- Low weight. The total weight of this system is below 20 kg/m<sup>2</sup>, instead of 90 kg/m<sup>2</sup> of typical systems.

## Certifications

EN ISO 9001:2015 by TÜV Germany, ELOT EN ISO50001:2018 and EN ISO14001:2015 by IQNET, SKZ Germany, AENOR Spain, CSA Canada, ZIK Croatia, PCT Russia, SEPRO Ukraine, EVETAM Greece and ISS Serbia for the mechanical strengths of the pipe. MPA-NRW Germany for oxygen permeability, KIWA Nederland for oxygen permeability, WRAS Great Britain, ZIK Croatia and PCT Russia, for the suitability of Como-Pex pipes for drinking water, ICC-ES PMG for PE-X pipes.



More explanatory material and technical information can be found in INTERPLAST's website (<https://www.INTERPLAST.gr/en>)

## LCA INFORMATION

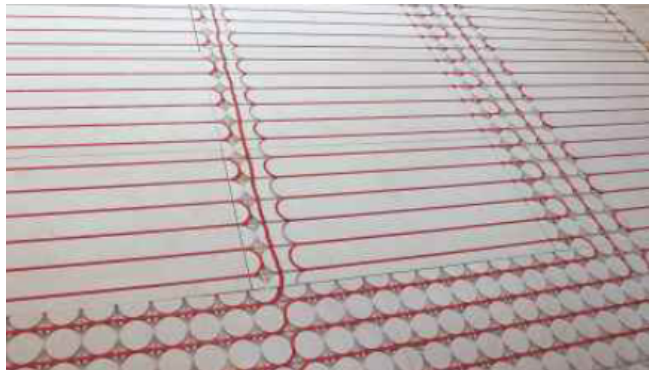
This EPD outlines the various environmental aspects which accompany the underfloor heating system “EcoFloor” of INTERPLAST, from the primary extraction of raw materials up to the manufacturing of the final product. Due to the scope of the LCA (cradle- to-gate), reference service life is not applicable in the study.

### Declared Unit

With a cradle-to-gate system boundary and in accordance to the guiding PCR the declared unit being evaluated, is:

**1 m<sup>2</sup> of installed EcoFloor system**

The reference flow of the declared unit is 15.95kg/m<sup>2</sup> of EcoFloor. Please note that EPDs of construction products may not be comparable if they do not comply with the CEN TC 350 (EN15804 and EN15942) standards.



### Database and LCA software used

The LCA model was created using the **SimaPro 9.1** Software system for life cycle engineering, developed by PRé Sustainability. The **EcoInvent** database (v3.7) provides the life cycle inventory data for all the raw and process materials obtained from the background system. This LCA database was compiled in September 2020, while the date of all background data used lies between 2011 and 2019.

### System Boundaries

Boundary for the LCA has been set accordingly to the PCR requirements, in a **cradle-to-gate** approach, thus only Modules A1-A3 have been considered. According to the EN 15804+A1:2013 standard on the sustainability of construction works, these modules are: Raw Material Production, inbound Transport, and Manufacturing, which are categorized as A1, A2, and A3, respectively. Transport to the construction site and impacts from installation, use, and end-of-life are excluded due to lack of available data and wide variation in these phases globally. Thus, life cycle modules A4 and after are excluded from the study. The product does not contain materials or substances that can adversely affect human health and the environment in all stages of the life cycle.



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
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MNA*		MNA							MNA			MNA	

(\*) MNA: Module(s) Not Assessed

### A1. Raw materials Production

This first module includes the extraction and production of all raw matters required for the manufacturing process and the energy and resource consumption involved on those stages upstream and during the manufacturing process. Specifically, it includes the production of the polyethylene granulate, of the raw material used in the INTERPLAST-produced pipes, as well as other additives used in small quantities. It also includes all processes, electric consumption and materials needed for pipe manufacturing at INTERPLAST. The module also includes raw materials used in the rest of the floor components (gypsum board, insulation, filling) and their manufacturing processes that take place in the relevant supply chain. LCIA results for these components are obtained from supplier EPDs.

### A2. Transport

Transport of raw materials and EcoFloor components to the production facility of INTERPLAST has been modelled under this module, taking into account the location of the suppliers and average transportation units from Ecoinvent database. Transportation for raw materials takes place by road and ship.

### A3. Manufacturing

This module includes the assembly of all components in the final EcoFloor product.

## Time & Geographical coverage and Data Quality

Annual data from 2020 were collected for the pipe manufacturing facilities in Komotini, Greece, and used in LCA calculation. Data for the remaining components of the heating floor were obtained from their corresponding EPDs (see table below). Background data (mainly raw materials, chemicals and fuels) were obtained from the Ecoinvent database, while the electricity data were collected by the Hellenic Electricity Distribution Network Operator (IPTO or ADMIE) for 2020.

The data represent the technology used at the pipe manufacturing plant. The INTERPLAST data used, refers to the production line of the specific product, thus there is no need for multi-output allocation estimations. In this study, site-specific data representative of the



technology used in Greece in the reference year 2020 were collected and analysed. In cases when no primary data were available, either estimations provided by the company or calculated data were used.

Relevant EcoFloor component	Product declared	Declaration number	EPD owner	EPD program operator	Valid until
<b>Vidifloor gypsum fibreboard</b>	Gypsum fibreboards	EPD-KNB-20190065- -IAC1-EN	Knauf Bulgaria EOOD	Institut Bauen und Umwelt e.V. (IBU) <sup>1</sup>	29/9/2024
<b>EPS 200 insulation</b>	Expanded Polystyrene (EPS) Foam Insulation	EPD-EUM-20160272- -IBG1-EN	EUMEPS European Manufacturers of Expanded Polystyrene		19/04/2022
<b>Rock wool insulation</b>	Multipurpose Rock Mineral Wool insulation	EPD-KNI-20170218- -CBD1-EN	Knauf Insulation		30/01/2023
<b>XPS 200 insulation</b>	Extruded Polystyrene (XPS) Foam Insulation	EPD-EXI-20190112- -IBE1-EN	EXIBA - European Extruded Polystyrene Insulation Board Association		02/12/2024
<b>Fuelmasse cement screed – Filling component</b>	Mineralische Werkmörtel: Estrichmörtel-Zementestrich	EPD-IWM-20190151- -IBG 1-DE	Industrieverband WerkMörtel e.V. (IWM)Verband fuer Daemmsysteme, Putz and Moertel e.V. (VDPM)		28/11/2024
<b>Primer</b>	Dispersions-basierte Produkte, lösemittelhaltig	EPD-VDL-20190087- -IBG1-DE	Verband der deutschen Lack- und Druckfarbenindustrie e.VPCI Augsburg GmbH		10/07/2024

### Cut-off criteria

For raw materials (A1) that includes all the materials included in each component and the manufacturing of each component, the cut off criteria are defined in the corresponding EPDs given in the table right above. Regarding the in-house production of pipes, energy and material inputs for manufacturing, which contribute less than 0.5% (in terms of mass, energy or volume, respectively) were not considered.

For Transport (A2) estimated realistic data for transporting EcoFloor to the installation site have been considered. The emissions related to transporting the plastic scrap to the recycling facility have been omitted.

For manufacturing (A3) all available energy and material flow data occurring at INTERPLAST facilities for the assembly of EcoFloor have been included in the model.

<sup>1</sup> Data from a different Program Operator were used according to the mutual recognition agreement between EPD International and IBU (<https://ibu-epd.com/en/international-2/mutual-recognitions/>)

## System Diagram



## Content Declaration

The INTERPLAST EcoFloor includes pipes, gypsum board, insulation, filling and other components. No hazardous substances or listed under ECHA's SVHC list (Substances of Very High Concern) are included in the formulation of the product. As shown in the table right below aside the basic EcoFloor configuration, five alternative options are assessed ceteris paribus (the X sign means that the component of the left column is not present in the respective configuration). In particular, the following product configurations were examined:

- 1) Basic Configuration (BC): Including, as main components, the gypsum board (15mm thickness), the PEX-b pipes (with a length of 9 m per m<sup>2</sup> of EcoFloor) and the EPS 200 insulation material (20 mm thickness). During the on-site installation of EcoFloor, this configuration will require filling material and other auxiliary components. This composition is the most common among all other options, thus selected as the basic configuration.
- 2) Configuration 1a (C1a) – Minimum insulation: The same as BC, expect that the minimum insulation thickness is considered (5 mm instead of 20 mm).
- 3) Configuration 1b (C1b) – Maximum insulation: The same as BC, expect that the maximum insulation thickness is considered (30 mm instead of 20 mm).
- 4) Configuration 2 (C2) – PE-RT pipe: The same as BC, expect that a different pipe type is considered (PE-RT instead of PEX-b).
- 5) Configuration 3a (C3a) – XPS insulation: The same as BC, expect that a different insulation type is considered (XPS 2001 instead of EPS 200).
- 6) Configuration 3b (C3b) – Mineral wool insulation: The same as BC, expect that a different insulation type is considered (Rock mineral wool instead of EPS 200). In this case, higher primer consumption is required.

Weight contributions (kg) corresponding to EcoFloor – Area: 1m <sup>2</sup>						
EcoFloor Components	Basic Config. (BC)	Config.1a (C1a) Min insul.	Config.1b (C1b) Max insul.	Config. 2 (C2) PE-RT pipe	Config.3a (C3) XPS insul.	Config. 3b (C3b) Mineral wool insul.
<b>Gypsum Board</b>						
Vidifloor Fibre Gypsum Board	13.885					
<b>Pipes (9m length for 1m<sup>2</sup> of EcoFloor)</b>						
Option1: PEX-b	0.315		X		0.315	
Option2: PE-RT	X	X	X	0.315	X	X
<b>Insulation</b>						
Option1: EPS 200	0.6	0.15	0.9	0.6	X	X
Option2: XPS 200	X	X	X	X	0.66	X
Option3: Rock mineral wool	X	X	X	X	X	1.4
<b>Filling components</b>						
Primer	0.15	0.15	0.15	0.15	0.15	1.2
Fuellmasse	1.0					
<b>Other components</b>						
Fittings	1.3					
Manifolds	0.33					
Perifloor perimetric PE tape	0.08					

At the INTERPLAST facility, raw material is extruded for the pipe. The rest of the EcoFloor components are also transported from suppliers (A2) and delivered to INTERPLAST facility where the EcoFloor manufacturing (A3), which is basically an assembly, takes place. Following table shows the total materials, resources, components and transport inputs required to meet the declared unit of 1m<sup>2</sup> of floor. Plastic scrap was assumed to be sold to external recyclers. Recycling has been considered by system expansion to model the displacement of primary plastic production.

*Material composition of 1m INTERPLAST Ø10 x 1.1mm pipe (both for PEX-b and PE-RT)*

Material	Ø10 x 1.1mm pipe (1m)
HDPE resin	0.033 kg
Pigments (Red colour)	0.001 kg
EVOH (Oxygen barrier)	0.001 kg
Adhesive	0.001 kg

*Input and output from pipe manufacturing process \*(Ø10 x 1.1mm pipe with length 1m)*

Type	Flow	Value	Unit
<b>Inputs</b>	Electricity	0.15	kWh
	Natural Gas	0.00001	Nm <sup>3</sup>
	Lubricants	0.0000003	kg
	Water	0.0002	m <sup>3</sup>
<b>Outputs</b>	Final Product (Pipe)	0.034	kg
	Plastic Scrap for recycling	0.000928	kg

*Transportation of externally supplied components from suppliers to INTERPLAST facility*

Component	Location of production	Distance (km)	Transportation mode
Gypsum board	Iphofen (Germany)	1800	Truck
Insulation	Lamia (Greece)	542	
Primer	Iphofen (Germany)	1800	
Fuellmasse	Iphofen (Germany)	1800	
Fittings	Athens (Greece)	750	
Manifolds	Athens (Greece)	750	
Perifloor	Soprema (Italy)	1200	

*Inputs and Outputs for EcoFloor manufacturing at INTERPLAST facility*

Type	Flow	Value	Unit
<b>Inputs</b>	Electricity	0.1	kWh
<b>Outputs</b>	Final Product (1m <sup>2</sup> of EcoFloor)	15.95	kg

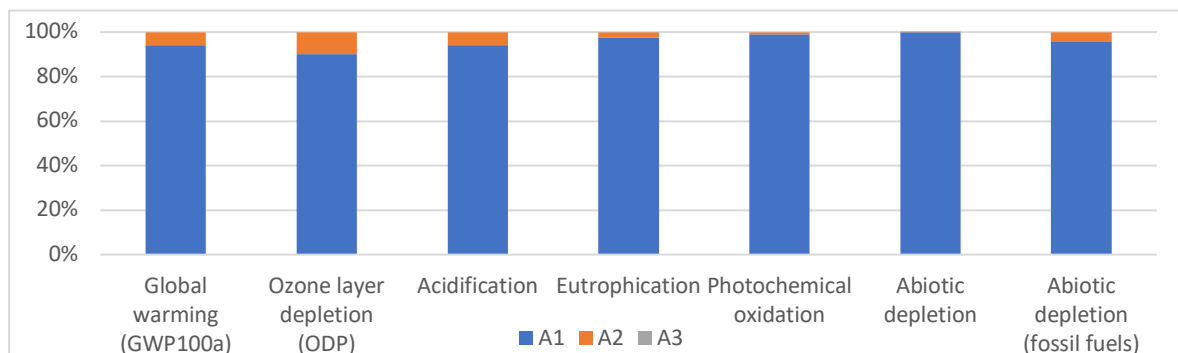
## ENVIRONMENTAL PERFORMANCE

The environmental performance of the INTERPLAST EcoFloor Plus floor heating system will be examined for each one of the three modules mentioned before and the impact assessment categories, which are shown in the following table. The selection of impact categories conforms with the relevant PCR specifications. As also dictated by the PCR, the corresponding characterization factors used refer to the latest version of the impact assessment method adopted by EN15804+A1:2013, which is the CML-IA baseline version 3.06 (December 2019).

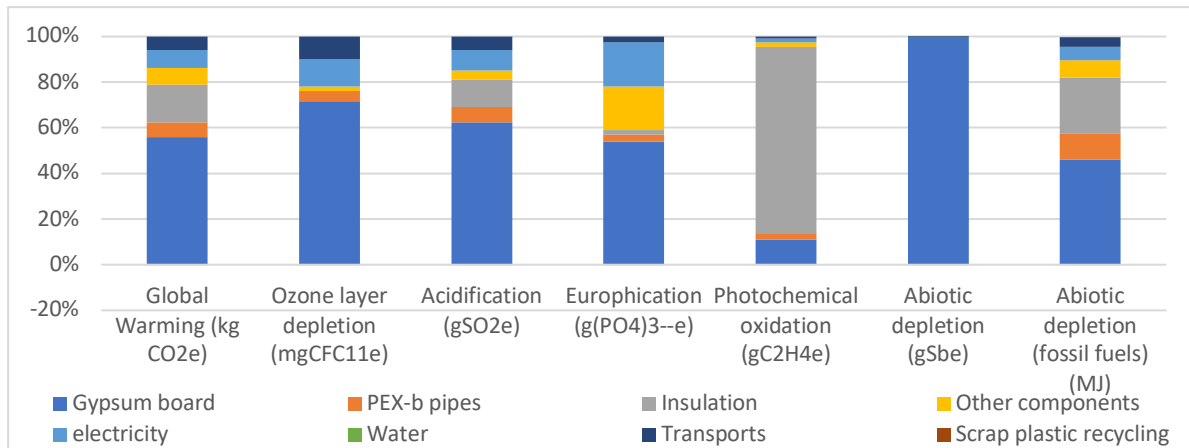
Impact Category	Description	EN15804+A1:2013
<b>Global Warming (GWP<sub>100</sub>)</b>	A measure of greenhouse gas emissions, such as CO <sub>2</sub> and CH <sub>4</sub>	kg CO <sub>2</sub> equivalent
<b>Eutrophication</b>	Eutrophication covers all potential impacts of excessively high levels of macronutrients, the most important of which nitrogen (N) and phosphorus (P).	kg (PO <sub>4</sub> ) <sup>-3</sup> equivalent
<b>Acidification for soil and water</b>	A measure of emissions that cause acidifying effects to the environment.	kg SO <sub>2</sub> equivalent
<b>Photochemical Ozone Creation</b>	A measure of emissions of precursors that contribute to ground level smog formation (mainly ozone O <sub>3</sub> ).	kg C <sub>2</sub> H <sub>4</sub> equivalent
<b>Ozone Depletion</b>	A measure of air emissions that contribute to the depletion of the stratospheric ozone layer.	kg CFC-11 equivalent
<b>Depletion of abiotic resources – elements</b>	A measure of the depletion of nonliving (abiotic) resources such as minerals and metals	kg Sb equivalent
<b>Depletion of abiotic resources – fossil fuels</b>	A measure of the depletion of nonliving (abiotic) resources such as fossil fuels	MJ

## LCA Results

The overall cradle-to-gate results are presented broadly into three categories: Raw Material, Transport, and Manufacturing. For overall results using the EN 15804+A1:2013 life cycle modules as required by the guiding PCR, refer to the declared results in the EPD. For the basic configuration, the gypsum board is the main contributor to all impact categories with the exception of photochemical oxidation where insulation prevails.



*Impact contribution of life cycle stages of construction products according to EN 15804+A1:2013 standard. Results refer to the Basic Configuration (BC).*



**Impact contribution of major flows for the basic EcoFloor configuration (BC).**

The absolute equivalent values of impacts are summarized in Table below. The results shown refer to the Basic Configuration (BC) of the EcoFloor Plus

**Impact Assessment results of INTERPLAST EcoFloor (per declared unit of 1m<sup>2</sup> of floor area)**

Type	Unit	Total	Raw Material (A1)	Transport (A2)	Manufacturing (A3)
Global Warming (GWP <sub>100</sub> )	kg CO <sub>2</sub> eq	1.14E+01	1.07E+01	6.54E-01	7.81E-07
Eutrophication	kg (PO <sub>4</sub> ) <sup>-3</sup> eq	2.13E-02	2.08E-02	5.14E-04	1.36E-09
Acidification for soil and water	kg SO <sub>2</sub> eq	3.66E-02	3.45E-02	2.13E-03	6.79E-09
Photochemical Ozone Creation	kg C <sub>2</sub> H <sub>4</sub> eq	9.55E-03	9.46E-03	9.12E-05	3.03E-10
Ozone Depletion	kg CFC-11 eq	1.11E-06	9.97E-07	1.10E-07	4.50E-13
Depletion of abiotic resources – elements	kg Sb eq	5.23E-02	5.23E-02	2.28E-05	2.09E-11
Depletion of abiotic resources – fossil fuels	MJ	2.15E+02	2.05E+02	9.42E+00	9.40E-06

The following table presents the results corresponding to resource use and materials for resource use. The results shown refer to the Basic Configuration (BC) of the EcoFloor Plus.

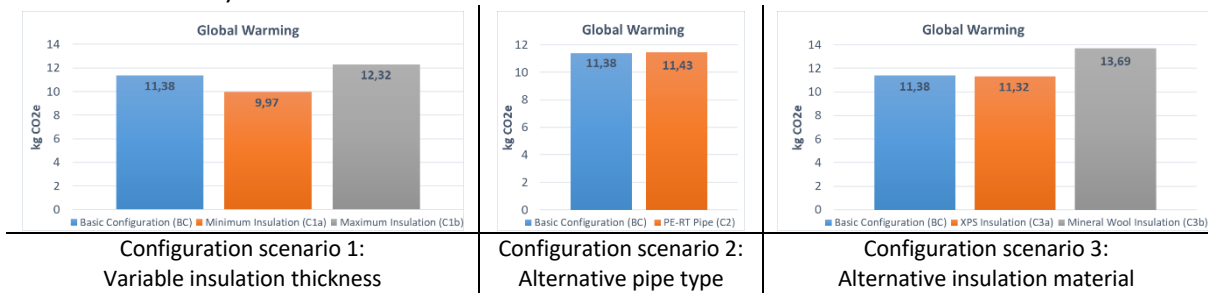
**Resource use, waste categories and output flow parameters of INTERPLAST EcoFloor (per declared unit of 1m<sup>2</sup> of floor area)**

Parameter	Unit	Total	Raw Material (A1)	Transport (A2)	Manufacturing (A3)	
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	7.58E+00	7.46E+00	1.24E-01	8.90E-07
	Used as raw materials	MJ, net calorific value	1.92E-02	1.92E-02	0.00E+00	0.00E+00
	TOTAL	MJ, net calorific value	7.60E+00	7.48E+00	1.24E-01	8.90E-07
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	1.99E+02	1.89E+02	1.02E+01	1.16E-05
	Used as raw materials	MJ, net calorific value	2.52E+01	2.52E+01	0.00E+00	0.00E+00
	TOTAL	MJ, net calorific value	2.24E+02	2.14E+02	1.02E+01	1.16E-05
Secondary material	kg	1.08E+01	1.08E+01	0.00E+00	0.00E+00	
Renewable secondary fuels	MJ, net calorific value	3.99E-04	3.99E-04	0.00E+00	0.00E+00	

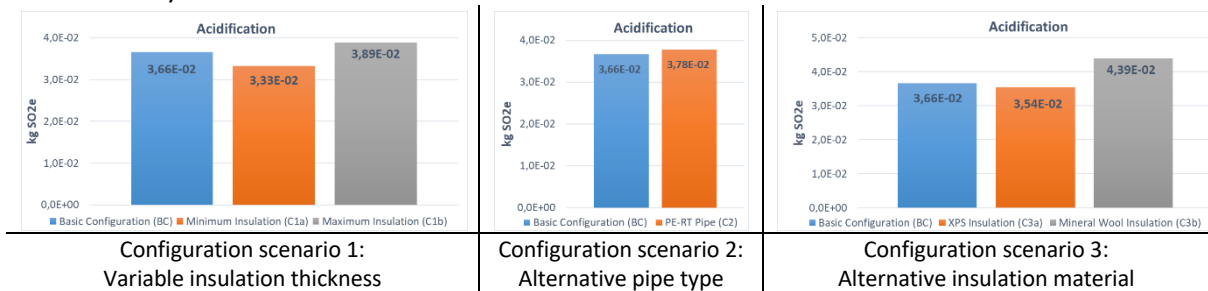
<b>Non-renewable secondary fuels</b>	MJ, net calorific value	4.05E-03	4.05E-03	0.00E+00	0.00E+00
<b>Net use of fresh water</b>	m <sup>3</sup>	4.19E-02	4.01E-02	1.85E-03	2.00E-06
<b>Hazardous waste disposed</b>	kg	1.83E-03	1.83E-03	0.00E+00	0.00E+00
<b>Non hazardous waste disposed</b>	kg	5.50E+00	5.50E+00	0.00E+00	0.00E+00
<b>Radioactive waste disposed</b>	kg	7.32E-04	7.32E-04	0.00E+00	0.00E+00
<b>Components for re use</b>	kg	0	0	0	0
<b>Materials for recycling</b>	kg	8.35E-03	8.35E-03	0.00E+00	0.00E+00
<b>Materials for energy recovery</b>	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<b>Exported energy</b>	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

The results of the comparative analysis between the alternative configuration scenarios are presented right below. Impact categories that are not represented (Ozone layer depletion, and Abiotic depletion) show only small differences (<5%) compared to the respective results of the Basic Configuration (BC).

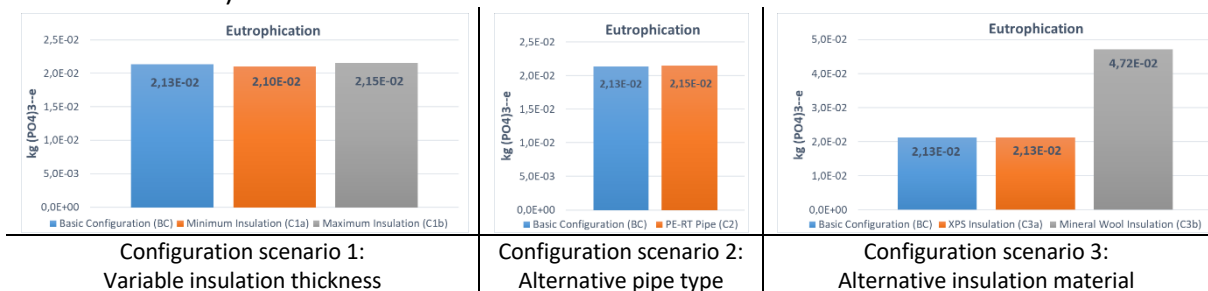
Global Warming results for alternative Ecofloor configuration scenarios (per declared unit of 1m<sup>2</sup> of floor area)



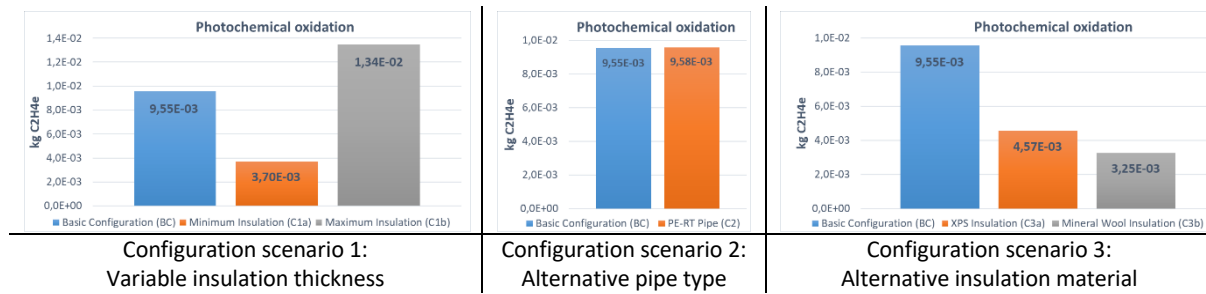
Acidification results for alternative Ecofloor configuration scenarios (per declared unit of 1m<sup>2</sup> of floor area)



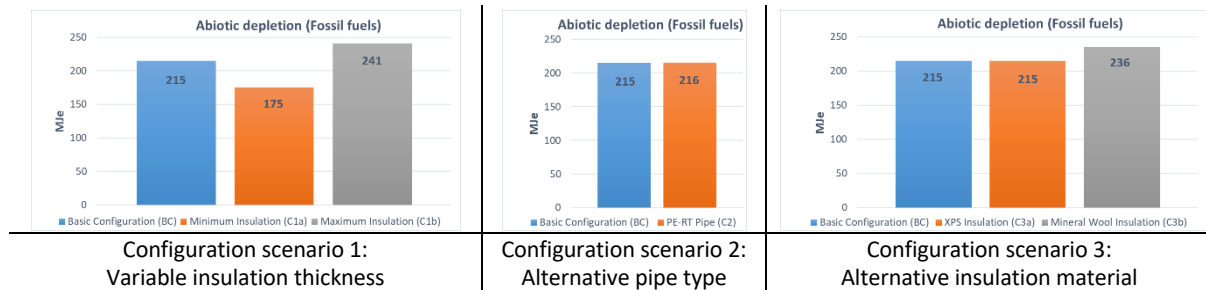
Eutrophication results for alternative Ecofloor configuration scenarios (per declared unit of 1m<sup>2</sup> of floor area)



Photochemical oxidation results for alternative Ecofloor configuration scenarios (per declared unit of 1m<sup>2</sup> of floor area)



Abiotic depletion (fossil fuels) results for alternative Ecofloor configuration scenarios (per declared unit of 1m<sup>2</sup> of floor area)



## Interpretation of LCA Results

Raw materials used in the EcoFloor components (incorporating all manufacturing and transport processes for their production) were by far the highest impact grouping in the cradle-to-gate analysis, featuring a corresponding contribution more than 90% for all impact categories. Main contributors in all impact categories were mainly the gypsum fiberboard (Vidifloor) followed by insulation (EPS200). Transportation of components to INTERPLAST facility and electricity required for assembly related processes for the EcoFloor were of lower significance.

Aside the basic EcoFloor configuration, five alternative configurations (scenarios) were also assessed ceteris paribus for different insulation options (insulation material and insulation layer height), and pipe materials. The present EPD will facilitate the external B2B communication regarding the product, will promote opportunities for new markets and identify hotspots for improving the impact of manufacturing for all INTERPLAST products.



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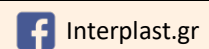
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