

# Environmental Product Declaration



In accordance with ISO 14025 for:

## Framery O

From

## framery

SERIOUS ABOUT HAPPINESS

Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
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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](http://www.environdec.com).



## Programme information

<b>Programme:</b>	<p>The International EPD® System</p> <p>EPD International AB Box 210 60 SE-100 31 Stockholm Sweden</p> <p><a href="http://www.environdec.com">www.environdec.com</a> <a href="mailto:info@environdec.com">info@environdec.com</a></p>
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Product category rules (PCR): Furniture, except seats and mattresses, 2012:19, version 2.0, UNCPC 3812/3813/3814
PCR review was conducted by: The Technical Committee of the International EPD® System. A full list of members available on <a href="http://www.environdec.com">www.environdec.com</a> . The review panel may be contacted via <a href="mailto:info@environdec.com">info@environdec.com</a> . Chair of the PCR review: Gorka Benito Alonso.
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
Third party verifier: Marcus Wendin, Miljögiraff AB  Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier:  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programmes may not be comparable.

## Company information

### Owner of the EPD:

Framery Oy, Patamäenkatu 7 33900 Tampere, Finland, sustainability@frameryacoustics.com

### Description of the organisation:

Framery is the pioneer and the world's leading manufacturer of soundproof private spaces for solving noise and privacy issues in open offices.

We are serious about happiness - Framery was born from a desire to solve a noise problem and bring happiness to an open office and is the essence and reason for everything we do. From our products which transform office behaviour making people happier and more efficient and our commitment to a happier more sustainable future, to the development of our own people and the way we work.

### Product-related or management system-related certifications:

Framery's management system is certified against ISO 9001 and ISO 14001.

### Name and location of production site:

Framery Oy, Tampere Finland

## Product information

### Product name:

Framery O

### Product description:

Framery O pod is a sound-isolated, echo-free stand-alone workspace that is designed to be optimal for private phone calls and video conferences for one person. The O pod decreases noise in open-plan offices. The exterior materials of the pod include painted sheet metal or brushed stainless steel with sound control laminated glass. The frame is formica laminate on birch plywood with varnish trim.

The interior walls and roof are a sandwich element of sheet metal, birch plywood, recycled acoustic foam and acoustic felt. There is also an anti-static and stain resistant low loop pile carpet. The pod comes with ventilation and lighting. The table is formica laminate on birch plywood with a varnish trim.

### UN CPC code:

3812

### Geographical scope:

Global. The geographical scope is global based on the actual sales data to different countries which has been taken into account in the calculation

## LCA information

### Functional unit / declared unit:

The declared unit is one O pod, maintained during its lifetime of 10 years (determined based on technical and esthetical aspects). The functional unit is defined as the lifetime of one O pod.

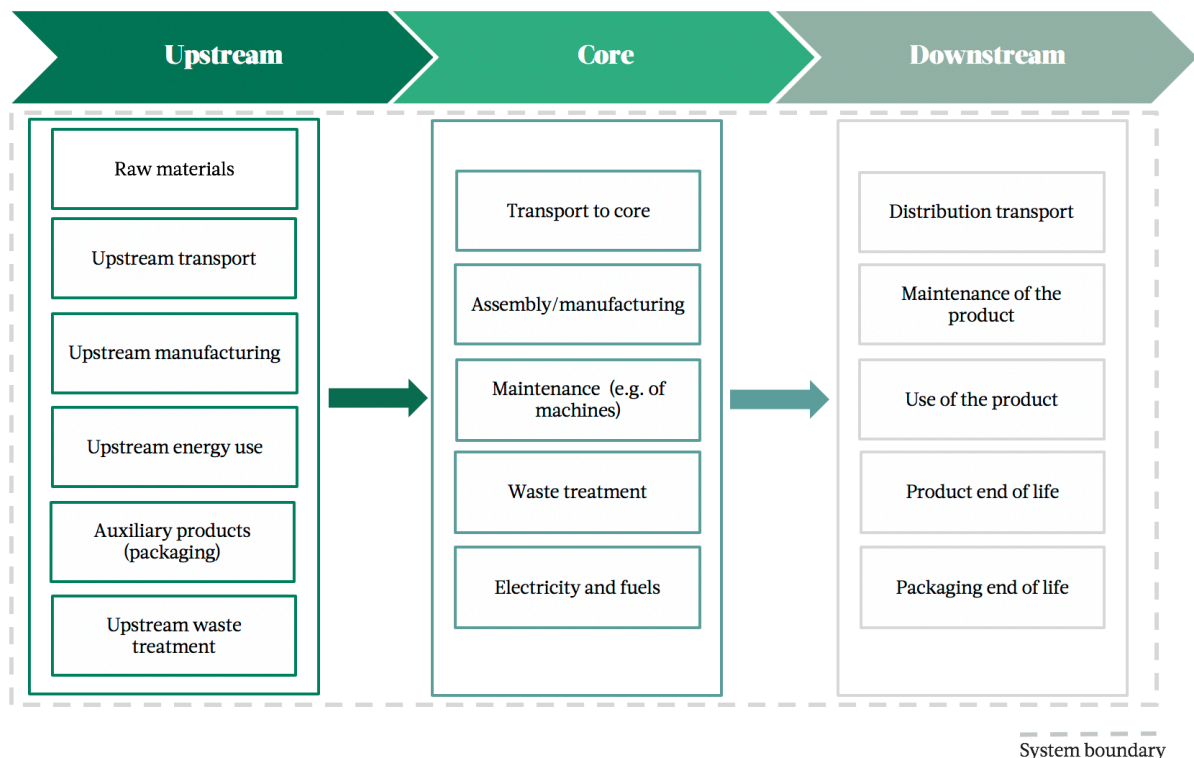
### Time representativeness:

Primary data for the LCA is based on production for a period of 12 months 9-2017/8-2018. Other calculation data is based on the best available data at the time of preparing the LCA (03-08/2019).

### Database(s) and LCA software used:

Databases used include ecoinvent 3.4, ELCD 3.2 and Industry data 2.0 (Plastics Europe, World Steel and ERASM). SimaPro LCA Software (SimaPro Analyst ver. 9.0.0.41) was used.

## System diagram:



Upstream processes include extraction and production of raw materials for all main parts and components, transportation of raw materials, manufacturing process for main parts, impacts due to energy in the upstream module, manufacturing of packaging and waste treatment of waste generated during upstream module. Core processes include transportation, assembly of the final product, treatment of waste generated during manufacturing and impacts due to energy used in the core module. Assembly of the pod is mainly manual, and no maintenance of machines is needed.

Downstream processes include distribution to customers, maintenance of the product, use of the product, end-of-life of the product and end-of-life of packaging.

## Description of system boundaries:

System boundary covers upstream, core and downstream (i.e. all life cycle stages from cradle to grave are taken into account).

## Excluded lifecycle stages:

All life cycle stages are included.

## More information:

LCA practitioner: Gaia Consulting Oy, Bulevardi 6A, 00120 Helsinki, Finland  
tel. +358 9 686 6620,  
info@gaia.fi

## Additional information:

### Assumptions:

- Distribution to customers was modelled based on actual sales data to different countries.
- Use phase energy consumption was estimated with average utilization rate based on Framery's expertise and checked with sensitivity analysis for minimum and maximum use. The energy mix used for calculating impacts from use phase energy consumption was based on the sales data and the corresponding distribution countries.

- Maintenance of the product during the life time included replacement of wearing parts, as specified by Framery.
- At the end of life, the O pod was assumed to be disassembled and plywood parts incinerated with energy recovery, steel components recycled, glass components landfilled and other components treated in waste incineration without energy recovery.
- Packaging waste was assumed to be recycled and incinerated with energy recovery.

Cut-off rules: 1% cut-off rule was applied for content declaration of the product.

Data quality: Primary data was collected from Framery and from suppliers of main components. Where supplier data was not comprehensive, it was complemented with similar supplier's data and selected generic data. For small parts (representing together less than 3 % of total mass) selected generic data was used. Selected generic data used are with system model "allocation, cut-off by classification".

Allocation:

- For some of the supplier data mass-based and economic allocation needed to be applied.
- Energy use for assembly was allocated based on total production amounts, which consisted of O pods and another similar product with equal assembly time.

## Content declaration

### *Product*

Materials / chemical substances	kg	%	Environmental / hazardous properties
Plywood	137	43 %	
Glass	78	24 %	
Steel	84	26 %	
Polyester	18,7	5,8 %	
Polyamide	1,3	0,4 %	
Other	2,3	0,7 %	
Total	322		

### *Packaging*

#### *Distribution packaging:*

Materials / chemical substances	kg	%	Environmental / hazardous properties
Plywood	89	95 %	
Cardboard	1,9	2 %	
PE-LD plastic	1,8	2 %	
Steel	0,9	1 %	
Total	94		

## Environmental performance

### Potential environmental impact

PARAMETER		UNIT	Upstream	Core	Downstream	TOTAL
Global warming potential (GWP)	Fossil	kg CO <sub>2</sub> eq.	1 240	97,0	302	1 640
	Biogenic	kg CO <sub>2</sub> eq.	726	108	361	1 200
	Land use and land transformation	kg CO <sub>2</sub> eq.	5,31	2,61	0,267	8,19
	TOTAL	kg CO <sub>2</sub> eq.	1 970	208	664	2 840
Acidification potential (AP)		kg SO <sub>2</sub> eq.	7,68	0,509	2,05	10,2
Eutrophication potential (EP)		kg PO <sub>4</sub> <sup>3-</sup> eq.	1,64	0,212	0,674	2,53
Photochemical oxidant formation (POFP)		kg NMVOC eq.	5,28	0,416	1,58	7,28
Abiotic depletion potential – Elements		kg Sb eq.	3,23*10 <sup>-03</sup>	4,13*10 <sup>-06</sup>	7,62*10 <sup>-03</sup>	1,08*10 <sup>-02</sup>
Abiotic depletion potential – Fossil resources		MJ, net calorific value	16 100	966	3 040	20 100
Water scarcity potential		m <sup>3</sup> eq.	480	30,5	55,8	567
Formation potential of tropospheric ozone (POCP)		kg C <sub>2</sub> H <sub>4</sub> eq.	0,581	0,0255	0,123	0,730
Depletion potential of the stratospheric ozone layer (ODP)		kg CFC 11 eq.	3,47*10 <sup>-04</sup>	1,21*10 <sup>-05</sup>	8,65*10 <sup>-04</sup>	1,22*10 <sup>-03</sup>

### Use of resources

PARAMETER		UNIT	Upstream	Core	Downstream	TOTAL
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	4 710	822	388	5 920
	Used as raw materials	MJ, net calorific value	16 600	0	0	16 600
	TOTAL	MJ, net calorific value	21 200	822	388	22 400
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	22 300	1 750	2 720	26 800
	Used as raw materials	MJ, net calorific value	2 540	0	1 120	3 670
	TOTAL	MJ, net calorific value	24 900	1 750	3 840	30 500
Secondary material		kg	0	0	0	0
Renewable secondary fuels		MJ, net calorific value	0	0	0	0
Non-renewable secondary fuels		MJ, net calorific value	0	0	0	0
Net use of fresh water		m <sup>3</sup>	8,16	0,412	1,49	10,1

## Waste production and output flows

### Waste production

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Hazardous waste disposed	kg	0,0584	0	0	0,0584
Non-hazardous waste disposed	kg	0,504	0,279	78,1	78,9
Radioactive waste disposed	kg	6,98*10 <sup>-04</sup>	0	0	6,98*10 <sup>-04</sup>

### Output flows

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Components for reuse	kg	0	0	0	0
Material for recycling	kg	0	9,26	84,0	93,3
Materials for energy recovery	kg	0	23,3	226	250
Exported energy, electricity	MJ	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0

## Other environmental indicators

The following additional impact categories were calculated according to the PCR:

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Human toxicity, cancer	cases	8,43*10 <sup>-05</sup>	4,25*10 <sup>-06</sup>	4,27*10 <sup>-05</sup>	1,31*10 <sup>-04</sup>
Human toxicity, non-cancer	cases	2,49*10 <sup>-04</sup>	2,06*10 <sup>-05</sup>	1,24*10 <sup>-04</sup>	3,93*10 <sup>-04</sup>
Freshwater ecotoxicity	PAF.m3.day	4 380 000	584 000	3 510 000	8 480 000
Land use	species.yr	6,64*10 <sup>-06</sup>	1,68*10 <sup>-07</sup>	4,08*10 <sup>-08</sup>	6,84*10 <sup>-06</sup>

## References

General Programme Instructions of the International EPD® System. Version 3.0. 2017-12-11.

Product category rules (PCR): Furniture, except seats and mattresses, 2012:19, version 2.0,  
UNCPC 3812/3813/3814

Gaia Consulting, 2019: Life Cycle Assessment (LCA) of Sound-Isolated Workspace Q for Framery Acoustics.  
Primary data for LCA from Framery Acoustics and its suppliers in Appendix II: Separate excel file ("Framery LCA Q 2019 data and assumptions").

ISO 14025:2006, 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

