

Environmental Product Declaration



In accordance with ISO 14025 and Product Category Rules for Furniture

EDGE FLOOR and EDGE TABLE

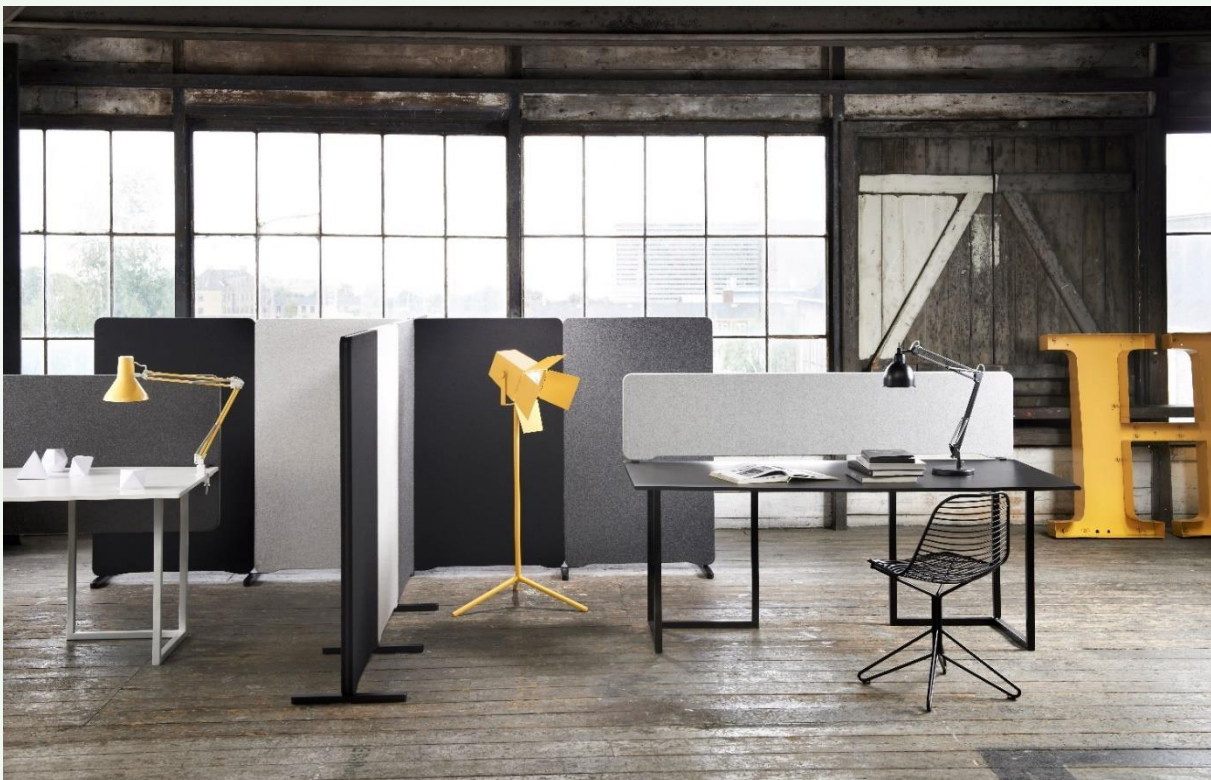
from

LINTEX

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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.



Programme information

Programme:	<p>The International EPD[®] System</p> <p>EPD International AB Box 210 60 SE-100 31 Stockholm Sweden</p> <p>www.environdec.com info@environdec.com</p>
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Product category rules (PCR): <i>Furniture, Except seats and mattresses 2012:19 version 2.01 valid until 2023-06-17</i>
PCR review was conducted by: <i>PCR Committee: Arper PsA Srl Moderator: Leo Breedveld, 2B Srl</i>
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: <i>David Althoff Palm, Ramboll Sweden AB, david.palm@ramboll.se</i> <i>Approved by: The International EPD[®] System</i>
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

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Description of the organisation: LINTEX is a Swedish producer of innovative writing boards and sound absorbing office screens, designed to inspire people to do great work, in offices, schools and institutions all over the world. Together with some of Scandinavia's leading designers and by using durable materials, such as tempered glass, high end textiles, solid wood, and enamelled steel, LINTEX creates well designed, functional products, made to last for a long time

LINTEX is a family business founded in 1983. Head office and factory are located in the town of Nybro in southern Sweden. LINTEX have subsidiary's, sales offices and agents elsewhere in Scandinavia, Europe and various parts of the world.

Working sustainably is a key element of LINTEX's strategy, culture and day-to-day operations. LINTEX understands that sustainability requires transformation. This means finding new ways of thinking and new innovative solutions. LINTEX has started the journey towards circular products with net zero climate impact. As of 2022 the production in Nybro is self-sufficient with respect to renewable energy, thanks to geothermal heating and over 4200 solar panels on the factory roof.

Management system-related certifications: LINTEX has been certified according to ISO 14001 since 2009. The company is also certified according to the FSC-STD-40-004 Chain of Custody Certification standard, certificate code DNV-COC-002282.

LINTEX Supplier Code of Conduct sets the scope for the company's supply chain management. LINTEX China is a member of the organization Sedex and use their third party SMETA-audits to verify social compliance.

Product information

Product name and description: LINTEX' EDGE FLOOR and EDGE TABLE are sound-absorbing screens for placing on floors and mounting on tables, respectively. They are made of a wooden frame filled with a sound-absorbent filling and covered by a polyester fabric. EDGE Floor and EDGE Table are suited for use in environments such as schools, offices and conference premises.

EDGE Floor and EDGE Table are available in different sizes, and in this EPD, the modelled dimensions are 1000x1500 mm for EDGE Floor and 1400x400 mm for EDGE Table. However, conversion factors are calculated that enable converting the results into environmental impacts for the other available sizes of EDGE Floor and EDGE Table, according to Table 1. The conversion factors are based on the surface area of the screen, which means that an underlying assumption is that environmental impacts scale with the screen surface for all impact categories. Since the frame, foot and mounts do not exactly scale with the surface area, the area-based conversion factors have been adjusted to compensate for the fact that large models would be overestimated, and small models would be underestimated.

As example, the smallest model of EDGE Floor has been multiplied with 1.10, and the largest model of EDGE Floor has been multiplied with 0.90, after comparing results using the area-based factors with calculated results for these two versions. The diversion from the area-based conversion factor result is assumed to linear between the baseline product and the extremes. The same method has been applied to Edge Table (with multiplication factors of 1.10 for the smallest model and 0.82 for the largest model).

Table 1: Surface area and conversion factors to convert baseline results into results for other whiteboard sizes.

Width (mm)	Height (mm)	Area (m2)	Conversion factor	Comment
800	1350	1.08	0.79	EDGE Floor
800	1500	1.20	0.86	EDGE Floor
800	1650	1.32	0.92	EDGE Floor
800	1800	1.44	0.98	EDGE Floor
1000	1350	1.35	0.93	EDGE Floor
1000	1500	1.50	1	EDGE Floor, Baseline
1000	1650	1.65	1.07	EDGE Floor
1000	1800	1.80	1.14	EDGE Floor
1200	1350	1.62	1.06	EDGE Floor
1200	1500	1.80	1.14	EDGE Floor
1200	1650	1.98	1.22	EDGE Floor
1200	1800	2.16	1.30	EDGE Floor
800	400	0.32	0.69*	EDGE Table, top-mounted
1000	400	0.40	0.81*	EDGE Table, top-mounted
1200	400	0.48	0.91*	EDGE Table, top-mounted
1400	400	0.56	1.00	EDGE Table, top-mounted, Baseline
1600	400	0.64	1.13	EDGE Table, top-mounted
1800	400	0.72	1.24	EDGE Table, top-mounted
2000	400	0.80	1.36	EDGE Table, top-mounted
800	700	0.56	1.20	EDGE Table, front-mounted
1000	700	0.7	1.21	EDGE Table, front-mounted
1200	700	0.84	1.41	EDGE Table, front-mounted
1400	700	0.98	1.60	EDGE Table, front-mounted
1600	700	1.12	1.76	EDGE Table, front-mounted
1800	700	1.26	1.92	EDGE Table, front-mounted
2000	700	1.4	2.05	EDGE Table, front-mounted

*Representative within +/-10 % for all impact categories except climate change biogenic and ozone depletion potential.



Additional information on use, reuse and end-of-life: Vacuum and dry wipe for daily cleaning. If the fabric is stained, use a damp cloth. For heavily stained fabrics combine with a dedicated soap solution. Be careful not to wet or rub the material too hard because this could result in loss of colour or potentially damage the nap.

When the screen is no longer needed, LINTEX encourages the owner/holder to put the product on the market again, to enable reuse. When the product's end-of life is finally reached, the product shall be handled by a professional waste management company to enable material recycling. EDGE Floor and EDGE Table are fully demountable, and the majority of the material can be recycled.

Product-related certifications: EDGE Floor and EDGE Table are certified according to the Swedish labelling system Möbelfakta, ID 0120141120 and 0220210111. Fabrics and filling used for the products are labelled with EU Ecolabel or Oekotex 100.

EDGE Floor and EDGE Table are tested and approved according to EN 1023:2000, a standard that includes dimensions, mechanical safety and stability of office screens. The products are also tested for sound absorption according to SS-EN ISO 354:2003, SS 25269:2013 and ISO 20189:2018.

For more product certifications, for example FSC (Forest Stewardship council®), www.lintex.se.

This EPD covers the following article numbers:

**EDGE Table
Top-mounted**

75320
75321
75322
75323
75324
75325
75326

**EDGE Table
Front-mounted**

75340
75341
75342
75343
75344
75345
75346

EDGE Floor

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75301
75302
75305
75306
75307
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75313
75314



LCA information

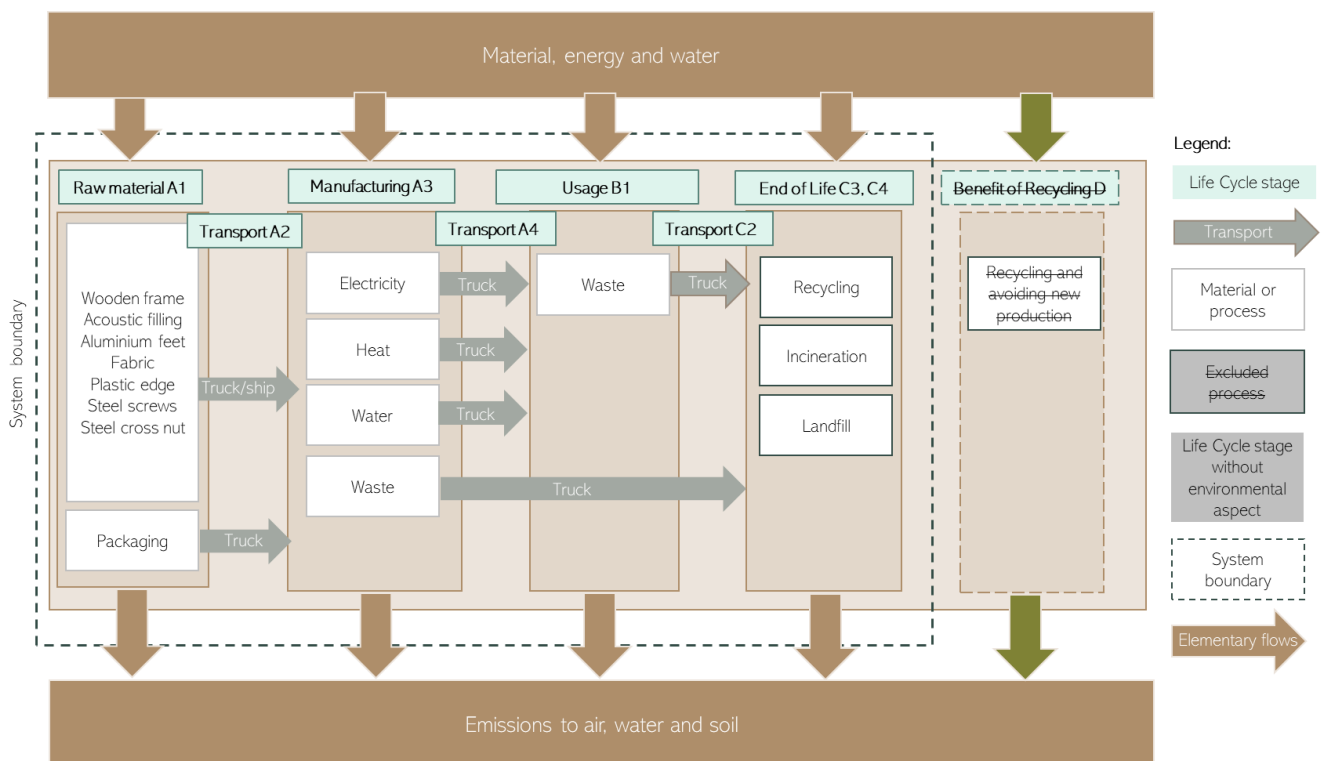
Declared Unit	The declared unit is 1 EDGE Floor screen of size 1000x1500, weighing 13,23 kg and 1 EDGE Table screen of size 1400x400, weighing 5,51 kg, respectively.
Product group classification	UN CPC 3812
Goal and Scope	<p>The result will be used to understand where the environmental burden for the products occurs during the life cycle and aims to lay a road map for development to decrease this burden. The result will be communicated by the International EPD system.</p> <p>The audience includes resellers and end-clients.</p>
Manufacturing Site	Nybro, Sweden.
Geographical Area	The product is globally available, but the model for transports and waste is based on Europe, which is Lintex' main market.
Compliant with	<p>This EPD follows the "Book-keeping" LCA approach which is defined as attributional LCA in the ISO 14040 standard.</p> <p>In accordance with ISO 14025, ISO 14040 – ISO 140 44.</p> <p>This EPD follows the Product Category Rules Furniture, Except seats and mattresses 2012:19 version 2.01 valid until 2023-06-17</p>
Cut-Off Rules	<p>The following procedure is followed for the exclusion of inputs and output:</p> <ul style="list-style-type: none"> - Data for elementary flows to and from the product system contributing to a minimum of 99% of the declared environmental impacts shall be included <p>A screening and expert judgement showed that the following aspects contribute less than 1% and could be cut-off:</p> <ul style="list-style-type: none"> - Various supplier packaging - Potential transports from retailer to installation site - Energy and material use in installation - Cleaning and maintenance during use
Background data	<p>The data quality is considered good. All site-specific data for raw materials, auxiliary materials as well as energy and emissions in the manufacturing process is from 2020 and have been represented with ecoinvent datasets. All other relevant environmental aspects have been represented by generic ecoinvent data.</p> <p>ecoinvent is the world's biggest LCI (Life cycle inventory) data library and the latest and most updated version was used. ecoinvent contains data for the specific geographical regions relevant for this study. The background data from ecoinvent 3.8 are from 2016-2020.</p>
Electricity data	Electricity consumption in the A3 module comes from Lintex own production from installed solar cells and geothermal heat pumps.
Allocations	<p>Polluter Pays / Allocation by Classification</p> <p>Two allocation rules are applied: 1) the raw material necessary for the manufacture is allocated by mass of the declared unit; 2) the energy necessary for the manufacture is allocated in MJ by production of the declared unit</p>
Impact Assessment methods	Potential environmental impacts and resource use values are calculated according to the GPI and PCR using the SimaPro 9.3 software.
Based on LCA Report	Miljögiraff Lintex EDGE LCA report 1003EDGE
LCA Practitioner	Daniel Böckin, Miljögiraff AB
Software	SimaPro 9.3

System boundary

The EPD follows Cradle to grave (A1–C4) boundaries. A1 is defined as upstream, A2 and A3 as core and the remaining modules (A4–C4) as downstream. See the system diagram below for information about included modules.

Raw materials	Up-stream		Core		Downstream												
	A1	A2	A3	A4	Construction-Installation	Use stage	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse-recovery-recycling-potential
X	X	X	X	X	X	NR	NR	NR	NR	NR	NR	NR	NR	X	X	X	MND

X= included in the LCA, NR = module without environmental aspects MND= Module Not Declared.



Content and life cycle information

The following table shows the **material content** of the screens and the percentage of recycled and renewable material in the products.

Components	Main material	Weight EDGE Floor (kg)	Weight EDGE Table (kg)	Recycled material (wt%)		Renewable material (wt%)
				Pre-cons.	Post-cons.	
Wooden frame	Wood	8,96	3,98	0	0	100
Sound absorbent filling	PET	1,37	0,29	0	42,5	0
Aluminium feet	Aluminium	1,34	0,42	0	90	0
Fabric	Polyester	0,98	0,44	0	0	0
Plastic edge	Rubber	0,45	0,25	0	0	0
Steel components	Steel	0,13	0,13	0	0	0
Total		13,2	5,51	F: 0 % T: 0 %	F: 13,5% T: 9,1%	F: 67,7% T: 72,2%
Packaging						
Well packaging	Corrugated board	1,45	0,55	0	60	100
Plastic band	PP	0,02	0,02	0	0	0
Wooden stands	Wood	0,67	0,67	0	0	100
Substances of Very High Concern (SVHC)	-	Weight Floor (kg)	Weight Table (kg)	Weight-% (vs the product)		exceeds 0.1%
(No SVHC exceeding 0,1 wt% in product)						

The majority of the product weight comes from the wooden frame, the sound absorbent filling made of partially recycled PET and the feet, made of mostly recycled aluminium.

Manufacturing takes place in Nybro, Sweden, and includes cutting the textile and assembling the product. The energy consumption for manufacturing was estimated based on yearly energy use and total production of screens compared to LINTEX total production. It is, on a yearly basis, covered by LINTEX own production from their rooftop solar cells and their geothermal heat pump.

Packaging is shown in the table above, including wooden stands for transportation.

It is assumed that there are no environmental aspects during **installation** or **use** of the product, except the waste management of packaging after installation.

End of life is based on a generic European waste scenario where LINTEX main markets are located.

Environmental performance

Potential environmental impact

PARAMETER		UNIT	EDGE Floor				EDGE Table			
			Up-stream	Core	Down-stream	TOTAL	Up-stream	Core	Down-stream	TOTAL
Global warming potential (GWP)	Fossil	kg CO ₂ eq.	2,11E+01	2,36E+00	2,62E+00	2,60E+01	8,33E+00	1,14E+00	1,07E+00	1,05E+01
	Biogenic	kg CO ₂ eq.	-	2,96E-02	2,11E+01	3,10E+00	8,63E+00	4,03E-02	1,00E+01	1,44E+00
	Land use and land transformation	kg CO ₂ eq.	1,19E-01	1,33E-03	1,23E-04	1,21E-01	5,24E-02	6,97E-04	5,42E-05	5,32E-02
	TOTAL	kg CO ₂ eq.	3,18E+00	2,39E+00	2,37E+01	2,93E+01	-2,46E-01	1,18E+00	1,11E+01	1,20E+01
Acidification potential (AP)		kg SO ₂ eq.	1,18E-01	1,58E-02	6,63E-03	1,40E-01	4,69E-02	6,91E-03	2,99E-03	5,68E-02
Eutrophication potential (EP)		kg PO ₄ ³⁻ eq.	6,47E-03	2,28E-04	6,88E-05	6,77E-03	2,67E-03	1,30E-04	3,37E-05	2,83E-03
Photochemical oxidant formation potential (POFP)		kg NMVOC eq.	9,26E-02	1,18E-02	9,73E-03	1,14E-01	3,89E-02	5,20E-03	4,35E-03	4,85E-02
Abiotic depletion potential – Elements		kg Sb eq.	3,58E-04	1,78E-05	1,10E-06	3,76E-04	1,18E-04	1,10E-05	4,96E-07	1,30E-04
Abiotic depletion potential – Fossil resources		MJ, net calorific value	3,55E+02	3,42E+01	8,06E+00	3,98E+02	1,42E+02	1,61E+01	3,52E+00	1,62E+02
Water scarcity potential		m ³ eq.	7,82E+00	2,72E-01	9,88E-02	8,19E+00	3,09E+00	1,73E-01	4,42E-02	3,31E+00

Global warming potential IPCC 2021

PARAMETER		UNIT	EDGE Floor				EDGE Table			
			Up-stream	Core	Down-stream	TOTAL	Up-stream	Core	Down-stream	TOTAL
GWP-GHG		kg CO ₂ eq.	20,9	2,34	4,77	28,0	8,27	1,13	1,97	11,4

Use of resources

PARAMETER		UNIT	EDGE Floor				EDGE Table			
			Up-stream	Core	Down-stream	TOTAL	Up-stream	Core	Down-stream	TOTAL
Primary energy resources – Renewable	Used as energy carrier	MJ, net calorific value	2,87E+02	9,94E+00	4,41E-01	2,97E+02	1,26E+02	7,29E+00	6,88E-02	1,33E+02
	Used as raw materials	MJ, net calorific value	1,95E+02	0,00E+00	0,00E+00	1,95E+02	1,00E+02	0,00E+00	0,00E+00	1,00E+02
	TOTAL	MJ, net calorific value	4,81E+02	9,94E+00	4,41E-01	4,92E+02	2,26E+02	7,29E+00	6,88E-02	2,33E+02
Primary energy resources – Non-renewable	Used as energy carrier	MJ, net calorific value	2,67E+02	1,48E+01	3,01E+01	3,12E+02	1,29E+02	1,71E+01	3,76E+00	1,50E+02
	Used as raw materials	MJ, net calorific value	1,12E+02	0,00E+00	0,00E+00	1,12E+02	2,23E+01	0,00E+00	0,00E+00	2,23E+01
	TOTAL	MJ, net calorific value	3,79E+02	1,48E+01	3,01E+01	4,24E+02	1,51E+02	1,71E+01	3,76E+00	1,72E+02
Secondary material	kg	1,79E+00	0,00E+00	0,00E+00	1,79E+00	5,01E-01	0,00E+00	0,00E+00	5,01E-01	
Renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Net use of fresh water	m ³	2,68E-01	3,03E-03	1,50E-02	2,86E-01	1,05E-01	3,33E-03	5,36E-03	1,13E-01	

Waste production and output flows

Waste production

PARAMETER	UNIT	EDGE Floor				EDGE Table			
		Up-stream	Core	Down-stream	TOTAL	Up-stream	Core	Down-stream	TOTAL
Hazardous waste disposed	kg	0	0	0	0	0	0	0	0
Non-hazardous waste disposed	kg	0	0	0	0	0	0	0	0
Radioactive waste disposed	kg	0	0	0	0	0	0	0	0

Output flows

PARAMETER	UNIT	EDGE Floor				EDGE Table			
		Up-stream	Core	Down-stream	TOTAL	Up-stream	Core	Down-stream	TOTAL
Components for reuse	kg	0	0	0	0	0	0	0	0
Material for recycling	kg	0	0	1,65E+00	1,65E+00	0	0	5,68E-01	5,68E-01
Materials for energy recovery	kg	0	0	1,21E+01	1,21E+01	0	0	5,50E+00	5,50E+00
Exported energy, electricity	MJ	0	0	0	0	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0	0	0	0	0



Other environmental indicators

Impact category	UNIT	EDGE Floor				EDGE Table			
		Up-stream	Core	Down-stream	TOTAL	Up-stream	Core	Down-stream	TOTAL
Human toxicity, cancer impacts	cases	2,77E-06	8,91E-08	1,51E-07	3,01E-06	1,28E-06	8,54E-08	3,68E-08	1,40E-06
Human toxicity, non-cancer impacts	cases	5,14E-06	1,86E-07	1,05E-06	6,38E-06	1,97E-06	1,94E-07	4,19E-07	2,59E-06
Fresh water ecotoxicity	PAF .m3 .day	1,27E+0 5	5,99E+0 3	1,37E+0 5	2,70E+0 5	4,62E+0 4	4,85E+0 3	4,45E+0 4	9,55E+0 4
Land use	species .yr	2,31E+0 3	4,93E+0 1	5,07E+0 0	2,37E+0 3	2,31E+0 3	4,93E+0 1	5,07E+0 0	2,37E+0 3

Share of biogenic carbon	Unit	Amount Floor	Amount Table
Biogenic carbon in the product	kg C	3,81	1,69
Biogenic carbon in the packaging	kg C	0,94	0,94

Additional information

Overall, most of the environmental impact of EDGE Floor and Table can be attributed to the emission of greenhouse gases and particulate matter as well as, the use of fossil and metal resources. Most of these occur in the production of raw materials, particularly the aluminium feet and polyester fabric. For the aluminium feet, the impacts are caused mainly by the use of non-renewable electricity for producing the non-recycled share of the aluminium and for extruding the final component, as well as from the use of metal resources for the recycled aluminium which requires zinc for alloying.

Differences versus previous published versions

2022-05-19 Version 1

2022-12-29 Version 1.1

New verification: Conversion factors to convert baseline results into results for other screen sizes have been added.

2023-01-16 Version 1.2

Editorial change: Illustration under System Boundary showing division of modules between Upstream, Core and Upstream corrected so that A4 is included in Downstream.



References

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