Environmental Product Declaration

In accordance with ISO 14025 for:

Ottima Bench (2000x1617mm)

from

Steelcase

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-03678
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Valid until:	2027-06-07

Programme information

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

Product category rules (PCR): *PCR 2012-19, Furniture, except seats and mattresses. Validity until 17-06-2023. Version 2.01, UN CPC 3812 /3813 /3814*
PCR review was conducted by: *Technical committee of the International EPD Gorka Benito Alonso. The review panel may be contacted via info@environdec.com*
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☒ EPD process certification ☐ EPD verification
Third party verifier: Tecnalia R&I Certificación is an approved certification body accountable for third-party verification *In case of accredited certification bodies:* Accredited by: ENAC, accreditation no. 125/C-PR283 *In case of recognised individual verifiers:* Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ 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:
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Description of the organisation:

At its heart, sustainability at Steelcase is about people. It's about creating and supporting the economic, environmental and social conditions that allow people and communities to reach their full potential.

Research and insights direct our path. It's not only about creating goods, it's about creating good. It's not only about creating value, it's about living our values. It's not just about reducing our footprint, it's about expanding our reach. It's about creating lasting and meaningful change to enable the long-term wellbeing of current and future generations.

Innovative products and solutions result. In the development of our products, we work to consider each stage of the life cycle: from materials extraction, production, transport, use and reuse, until the end of its life. We demonstrate performance through third-party verified certifications, such as ISO 9001, ISO 14001, ISO 14006, PEFC, FSC® (FSC-C003932), and voluntary product declarations.

Steelcase's sustainability promises, actions, and results are communicated in an annual Corporate Sustainability Report.

Product information

Product name: Ottima Bench (2000x1617mm)

Product identification: 512000050

Production site: This product is manufactured in Steelcase Madrid (Madrid, Spain).

Product description:
Ottima Bench has a steel structure that can be quickly assembled using hardly any tools, allowing quick, simple and reliable assembly and reconfigurations, ensuring the robustness and quality of the furniture for many years.

Ottima Bench is designed to be extremely flexible, because we know that workplaces are living and changing spaces.

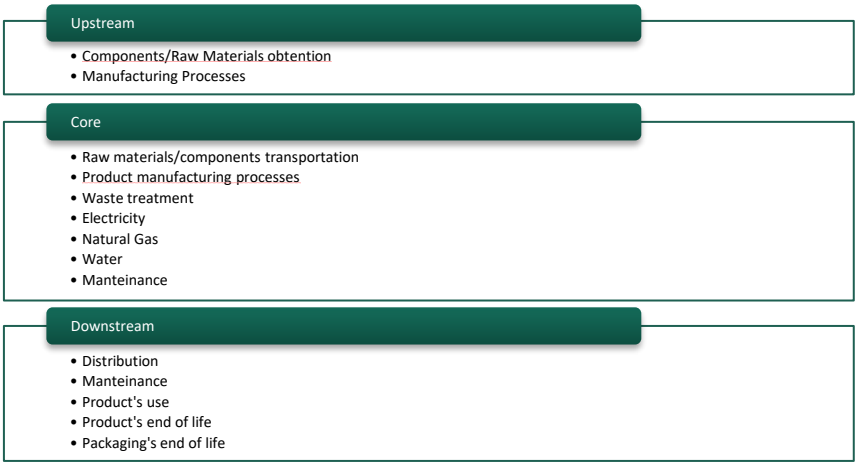
Height: Adjustable from 735 to 815mm
Width: 2000mm
Depth:1617mm

UN CPC code: 38121 - Other metal furniture, of a kind used in offices

Geographical scope: EMEA (Europe, Middle-East & Africa).

LCA information

Functional Unit	Consists in one Ottima Bench (2000x1617mm) in use for 8 hours a day, 5 days a week, for 15 years.
Source(s) of data	All information about manufacturing processes has been supplied directly by internal data of Steelcase Madrid. The Information about raw materials/components and distances has been supplied directly by our suppliers. All raw materials and components are transported by road.
Reference year for data	2019
LCA Software/ database(s) used	SimaPro v9.1.0.11 multiuser / Ecoinvent 3.6 Database
Exclusions	No exclusions were made
Assignment rules	In this study was considered necessary to perform a phyisical assignment (in fuction of produced units) for water, oil, natural gas, water, and electricity consumptions.
System boundaries	System boundaries include raw materials and components, production (includes processes and facilities maintenance), transport, packaging, distribution, use and end of life, both for the product and for its packaging.
System Scope	System's scope includes the whole life cycle of the product, from obtained raw materials to manufacturing, use and end of life. System is divided in 3 stages: • **UPSTREAM:** Includes components, raw material obtention and their associated manufacturing processes. • **CORE:** Includes transportation of raw materials and components from our suppliers to Steelcase Madrid, product manufacturing processes and waste treatment. • **DOWNSTREAM:** Includes clients shipping, products maintenance, product use and end of life, both for the product and for packaging.



This document has been created contemplating environmental impacts of raw materials and components, their transport and multiple transformation and manufacturing processes, treatment of generated wastes as well as the final product distribution to the customer and the end of life of the product and its packaging.

Content declaration

Product

Materials	Weight (kg)	% of total weight	Recycled content
ABS	0,9699	1,01%	26,08%
Steel	36,2340	37,87%	35,94%
Hot-melt adhesive	0,0207	0,02%	0,00%
Chipboard	49,1420	51,36%	40,00%
Aluminium	4,0880	4,27%	91,00%
PA6	0,0564	0,06%	80,61%
PA6 30GB	0,4461	0,47%	23,23%
PC	0,4106	0,43%	7,00%
Paint	0,5313	0,56%	0,00%
POM	0,0576	0,06%	88,52%
PP	0,3496	0,37%	5,83%
ZAMAK	0,8720	0,91%	94,00%
TOTAL	**93,1783**	**97,38%**	**40,48%**

Packaging

Materials	Weight (kg)	% of total weight	Recycled content
LDPE	2,4566	2,57%	23,42%
PP	0,0490	0,05%	5,83%
TOTAL	**2,5056**	**2,62%**	**23,07%**

Steelcase strives to be more environmentally friendly, therefore neither the product nor the packaging contains any substance on the REACH candidate list, nor any mixture classified in Regulation (EC) 1272/2008. In addition, within our organization a scrupulous protocol is carried out to check that all substances and materials comply with the standards of our organization.

Recycled material

Item	Recycled content	Pre-consumer	Post-consumer
Packaging	23,07%	17,01%	6,06%
Product	40,48%	30,36%	10,12%
TOTAL (Packaged product)	**40,03%**	**30,01%**	**10,01%**

Environmental performance

Potential environmental impact

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potencial (GWP)	Fosil	KgCO2 eq.	2,94E+02	3,95E+01	4,69E+01	**3,81E+02**
	Biogenic	KgCO2 eq.	3,55E+00	2,63E-02	2,62E-03	**3,58E+00**
	Land use and land transformation	KgCO2 eq.	4,68E-01	1,36E-02	4,51E-04	**4,82E-01**
	TOTAL	**KgCO2 eq.**	**2,98E+02**	**3,96E+01**	**4,69E+01**	**3,85E+02**
Acidification potential (AP)		KgSO2 eq.	1,48E+00	3,34E-01	2,06E-01	**2,02E+00**
Eutrophication potencial (EP)		KgPO43- eq.	6,31E-01	2,54E-02	3,19E-02	**6,88E-01**
Formation potencial of tropospheric ozone (POCP)		kg NMVOC eq.	1,22E+00	7,18E-02	2,71E-01	**1,56E+00**
Abiotic depletion potential - elements		KgSb eq.	7,05E-02	1,87E-05	3,43E-06	**7,05E-02**
Abiotic depletion potential - fosil fuels		MJ, net calorific value	3,45E+03	4,86E+02	6,61E+02	**4,60E+03**
Water scarcity potential		m3 eq.	9,42E+01	5,90E+00	1,97E+00	**1,02E+02**

Use of resources

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	1,58E+03	7,21E+01	1,08E+00	**1,66E+03**
	Used as raw materials	MJ, net calorific value	9,786E+02	0,00E+00	0,00E+00	**9,79E+02**
	TOTAL		**2,56E+03**	**7,21E+01**	**1,08E+00**	**2,64E+03**
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	2,89E+03	6,45E+02	6,63E+02	**4,20E+03**
	Used as raw materials	MJ, net calorific value	9,79E+02	0,00E+00	0,00E+00	**9,79E+02**
	TOTAL		**3,87E+03**	**6,45E+02**	**6,63E+02**	**5,18E+03**
Secondary material		kg	4,96E+01	NA	NA	**4,96E+01**
Renewable secondary fuels		MJ, net calorific value	NA	NA	NA	**0,00E+00**
Non-renewable secondary fuels		MJ, net calorific value	NA	NA	NA	**0,00E+00**
Net use of fresh water		m^3	NA	1,06E-02	1,00E-01	**1,11E-01**

Waste production and output flows

Waste production

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg	2,11E-02	7,51E-04	1,96E-03	**2,38E-02**
Non-hazardous waste disposed	kg	6,21E+01	5,60E-01	5,16E+01	**1,14E+02**
Radioactive waste disposed	kg	1,09E-02	3,33E-03	4,80E-03	**1,90E-02**

Output flows

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
Material for recycling	kg	0,00E+00	2,85E+01	9,51E+01	**1,24E+02**
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**

Other environmental indicators

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Human toxicity, cancer impacts	Cases	8,98E-05	9,47E-07	8,97E-08	**9,09E-05**
Human toxicity, non-cancer impacts	Cases	1,01E-04	3,33E-06	2,11E-06	**1,07E-04**
Fresh water ecotoxicity	PAF m^3 day	1,14E+07	6,45E+04	1,70E+04	**1,14E+07**
Land use	Species.yr	3,42E-07	2,18E-08	3,53E-10	**3,64E-07**

Additional information

Recommendations for use

- In order to guarantee an adequate life cycle, it is necessary to clean the surface regularly, using a wet cloth.
- For daily cleaning it is recommended to use a soft duster.
- Wood components do not emit formaldehydes, in accordance with the E1 reduced emission standard (EN 13986).
- Ottima Benches are designed to be easily updated and repaired and can be easily assembled and disassembled using hand tools.

Transport

- Both the weight and the volume of the product and packaging have been reduced to a minimum, to minimize the energy consumed during transport.

Composition

- This product does not contain hazardous materials (i.e., PVC, cadmium, mercury, hexavalent lead) or harmful additives (i.e., fire retardants).
- Solvent-free, water-soluble inks are used on paper and packaging.

Production

- This product has been designed to achieve a minimum environmental impact.
- The adhesive used in the edgebanding does not contain any VOCs.
- The paint used does not contain any VOCs or heavy metals.

Disposal

- Packaging materials are 100% recyclable.
- The Ottima Bench (2000x1617mm) is 99,41 % recyclable, measured in terms of weight.
- All plastic parts weighing over 50g are marked in accordance with ISO 11469, in order to facilitate their recycling (packaging excluded).
- Once the Ottima Bench (2000x1617mm) reaches its end of life, it has been designed to be separated by components and recycled.
- All materials have been considered in a recycling scenario at their end of life, except for hot-melt adhesive and paint.

Notes

- Data shown in this declaration will be valid if there are no significant changes in the process analysed.
- Results obtained are not comparable for other product references or about other declarations, drawn up based on another certification system.
- The verifier and the program operator are not responsible for any claims about the product or the legality of the product.

Version Control		
Version Number	Date	Changes
00	2022-06-07	EPD is published
01	2022-09-20	Geographical scope is increased to EMEA

References

- General Programme Instructions of the International EPD® System. Version 3.01.
- PCR 2012-19, Furniture, except seats and mattresses. Version: 2.01(Product category classification: UN CPC 3812/3813/3814)
- ISO 14025:2006 Environmental labels and declarations.
- ISO 14040:2006/A1:2021 Environmental management — Life cycle assessment — Principles and framework
- ISO 14044:2006 /A1:2018 + A2:2021 Environmental management — Life cycle assessment — Requirements and guidelines
- ECOINVENT Ecoinvent Centre, www.ECO-invent.org
- SIMAPRO SimaPro LCA Software, Pré Consultants, the Netherlands, www.presustainability.com. SimaPro v9.1.0.11 multiuser. Data Base Ecoinvent 3.6

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