

# Flex Height-Adjustable Desk®

AMERICAS



Certified  
Environmental  
Product Declaration  
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## About this product

Flex HAD® empowers teams to create spaces that can be rearranged on demand. Creating environments teams and individuals need to do their best work.

The reference product is a desk covering 0.68 m<sup>2</sup> meaning 1.47 units are required to meet the functional unit of one square meter of physical floor space for a 10-year period.

Date of Issue: May 26, 2023  
Date of Expiration: May 26, 2028

## Learn more

- Explore Steelcase environmental philosophy and commitments [overview](#).
- Find product details and sustainability certifications on [product page](#) at steelcase.com.
- See our product [warranty](#).
- Contact [epd@steelcase.com](mailto:epd@steelcase.com) for any EPD-related questions or inquiries.

## About this document

This declaration describes the Life Cycle Assessment of the Flex HAD® desk produced for the Americas by Steelcase Inc. in the United States. The assessment is performed according to the ISO standards 14040 (2006), 14044 (2006) and 14025 (2006), and BIFMA PCR for Tables: UNCPC 3812 (2020) to generate an EPD for business-to-business and business-to-consumer communication.

## ASSESSMENT OVERVIEW

<b>EPD commissioner</b>	Steelcase® Inc
<b>Corporate Address</b>	901 44th Street SE Grand Rapids, Michigan 49508-7594 United States
<b>Product group</b>	Tables
<b>Product name</b>	Steelcase Flex Height-Adjustable Desk®
<b>Product intended use</b>	Table
<b>Product reference service life</b>	10 years
<b>Reference standards</b>	ISO 14025, ISO 14040, ISO 14044
<b>EPD scope</b>	Cradle to grave
<b>EPD number</b>	EPD10843
<b>Date of issuance</b>	May 26, 2023
<b>Date of expiration</b>	May 26, 2028
<b>EPD type</b>	Product specific
<b>EPD Product Coverage</b>	Steelcase Flex Height-Adjustable Desk® for the Americas market, including all styles starting with codes: FLXE, FLXS
<b>Intended audience</b>	Business to business and business to consumer
<b>Year of reported manufacturer data</b>	2021
<b>Functional unit</b>	One square meter of physical floor space for a reference service life of 10 years
<b>Applicable markets/regions</b>	Americas
<b>LCA software and database version</b>	GaBi 10.6.2.9; GaBi database, 2022.2
<b>LCIA methodology and version number</b>	TRACI 2.1
<b>Program administrator</b>	NSF Certification LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org
<b>Reference PCR and version number</b>	BIFMA PCR for Tables: UNCPC 3812 (BIFMA PCR, 2020)
<b>PCR reviewer</b>	Review Panel Chaired by Dr. Thomas Gloria
<b>EPD reviewer</b>	External review conducted by:  Jack Geibig, <a href="mailto:jgeibig@ecoform.com">jgeibig@ecoform.com</a>    This declaration and its Life Cycle Assessment was independently verified in accordance with ISO standards 14040 (2006), 14044 (2006) and 14025 (2006), and BIFMA PCR for Tables UNCPC 3812 (2020).
<b>LCA reviewer</b>	External review conducted by:  Jack Geibig, <a href="mailto:jgeibig@ecoform.com">jgeibig@ecoform.com</a>    The product Life Cycle Assessment was conducted in accordance with ISO 14044 and the reference PCR.
<b>Disclaimer</b>	The PCR this EPD was based on was written to determine the potential environmental impacts of a table product from cradle to grave. It was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled.

## ASSESSMENT PARAMETERS

### Functional unit

One square meter of physical floor space for a reference service life of 10 years. To fulfill the functional unit, 1.47 units of this product are required.

### Product scope

The product assessed is the Steelcase Flex Height-Adjustable Desk® (product number FLXERQB) with a height-adjustable base (extended height), rectangular top, standard cable management tray, electrical touch controller, and directional rollers (casters).

The product assessed is the Steelcase Flex Height-Adjustable Desks® with parametric tops in various shapes and electrical switch interface to adjust the height. The results presented in the EPD are a conservative estimate for all style numbers listed in this document.

One Steelcase Flex Height-Adjustable Desk® is intended for use by 1 occupant.



<u>Manufacturing location</u>	<u>Product SKUs within the variation allowance</u>	<u>Applicable markets and regions</u>
Grand Rapids, MI (SCW facility)	FLXERQ, FLXERQB, FLXSRQ, FLXSRQB, FLXSW3, FLXEWS3, FLXSWC3, FLXEWC3	Americas

### Assessment goal and scope




The potential environmental impacts of the Steelcase Flex Height-Adjustable Desk® and its packaging throughout its entire life cycle – including raw materials extraction, production, transport, use, and end of life – were assessed. In the absence of primary information, the GaBi database was used for secondary data.

The life cycle stages included in this assessment follow the BIFMA PCR for Tables: UNCPC 3812 V3. Material acquisition and pre-processing (including transportation), production, distribution, use and end-of-life are assessed for the table product.

For tables, no impacts associated with the use of the table are included in the assessment. Instead, energy usage requirements in kW-hr for 1 hour of usage are reported. An hour of usage includes adjusting the table from minimum height to maximum height, then returning the product to minimum height. The product reviewed requires 0.003 kWh per hour.

### Assessment boundary

The Life Cycle Assessment considers the full life cycle of the product as described here, cradle to grave. Life cycle stages and phase included in this assessment follow the BIFMA PCR for Tables and are presented in the following table.

	Stage	Status
 <p><b>Cradle to inbound gate</b> <b>MATERIALS ACQUISITION</b> Raw material extraction, pre-processing and transportation of materials to suppliers.</p>	A1. Raw material supply	✓
	A2. Transport	✓
 <p><b>Gate to gate</b> <b>PRODUCTION PROCESS</b> Transportation of furniture components and materials from Tier 1 suppliers to Steelcase final manufacturing facility. External and internal production.</p>	A3. Manufacturing	✓
	A4. Transport	✓
 <p><b>Gate to grave</b> <b>DISTRIBUTION, USE AND END OF LIFE</b> Distribution of products, installation, use and end of life.</p>	A5. Installation	✓
	B1. Use	✓
	B2. Maintenance/cleaning	✓
	B3. Repair	✓
	B4. Replacement	✓
	B5. Refurbishment	✓
	B6. Operational energy use	✓
	B7. Operational water use	✓
	C1. Disassembly	✓
	C2. Transport	✓
C3. Waste processing	✓	
	C4. Disposal	✓
<b>Beyond the boundary</b>	D. Reuse/recovery	✓

## RESULTS

The product and packaging composition, recycled content, recyclability visuals, and life cycle impacts below relate specifically to the configuration of one m<sup>2</sup> (1.47 units) of a Steelcase Flex Height-Adjustable Desk® with the highest impacts in the Americas consisting of a table with a height-adjustable base (extended height), rectangular top, and casters. Product numbers represented by these results include styles starting with codes FLXE and FLXS.

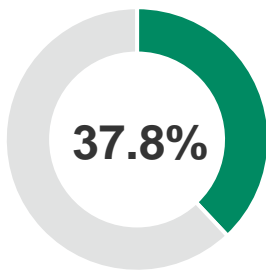
### Product composition per m<sup>2</sup>

Material	Weight (kg)	Weight (%)	Resource Type
Plywood	39.762	57.40%	Virgin Renewable
Steel	24.765	35.70%	Recycled, Virgin Non-Renewable
Electrical Components	2.209	3.20%	Virgin Non-renewable
Electronic Motor	1.829	2.60%	Virgin Non-renewable
Other	0.759	1.10%	
Total	69.323	100.00%	

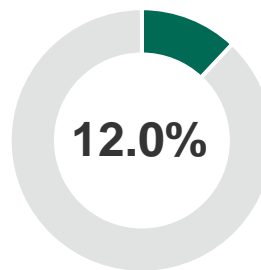
### Product packaging composition per m<sup>2</sup>

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	8.738	89.10%	Renewable
PP	0.934	9.52%	Non-renewable
PE	0.133	1.36%	Non-renewable
LLDPE	0.002	0.02%	Non-renewable
Total	9.807	100.00%	

### Product recycled content\* and recyclability\*\* summary



TOTAL RECYCLED CONTENT\*



RECYCLABILITY BY WEIGHT\*\*

\*Total recycled content based on supplier's data. The source of recycled content of various materials could be either post-industrial or post-consumer based on market availability.

\*\*Recyclability: this recyclability rate is the maximum amount of the product that is recyclable, based on the availability of recycling facilities in the specified regions and the ability of the product to be disassembled. Note that, per the requirements of the PCR, the end-of-life results presented in this EPD were calculated using the US EPA's recycling rates within the 2020 Municipal Solid Waste Report for parts that can be disassembled.

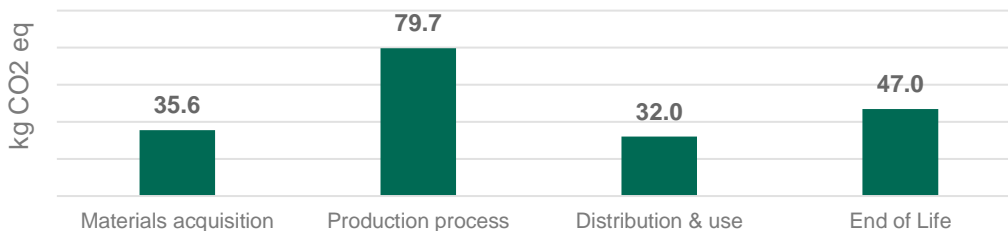
### Life cycle impact by category and stage

Environmental impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using TRACI 2.1 characterization factors, as well as LCI indicators for primary energy and water usage. Results presented in this report are for one m<sup>2</sup> (1.47 units) of a Steelcase Flex Height-Adjustable Desk® with the highest impacts in the Americas, maintained for 10 years. Additionally, the results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

	Unit	Life cycle stages				Totals
		A1-A2 Materials acquisition	A3 Production process	A4-B7 Distribution & Use	C1-C4 End of life	
<b>*Global warming potential</b> (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	3.56E+01	7.97E+01	3.20E+01	4.70E+01	<b>1.94E+02</b>
<b>*Acidification</b> Emissions that increase the acidity of the environment due to various chemical reactions and/or biological activity, or by natural circumstances.	kg SO2 eq	5.74E-01	2.02E-01	1.49E-01	1.95E-01	<b>1.12E+00</b>
<b>*Photochemical ozone creation (Smog)</b> Through various chemical reactions, which occur between nitrogen oxides (NOx) and volatile organic compounds (VOCs) in sunlight.	kg O3 eq	5.94E+00	2.76E+00	3.44E+00	6.25E-01	<b>1.28E+01</b>
<b>*Eutrophication</b> Enrichment of an aquatic ecosystem with nutrients (nitrates, phosphates) that accelerate biological productivity and an undesirable accumulation of algal biomass.	kg N eq	1.66E+01	4.05E+00	2.53E+00	6.93E-01	<b>2.39E+01</b>
<b>*Ozone depletion</b> Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	1.14E-10	3.58E-12	6.05E-14	8.58E-14	<b>1.18E-10</b>
<b>Primary energy demand</b> Energy consumption at the source.	MJ	2.84E+03	1.76E+03	4.68E+02	4.35E+01	<b>5.12E+03</b>
<b>Net freshwater usage</b> Freshwater used and otherwise not recoverable.	kg	7.16E+02	3.28E+02	6.29E+01	3.58E+01	<b>1.14E+03</b>
<b>Renewable primary resources used as an energy carrier</b> First use materials from renewable sources with energy content used as a fuel	MJ	0.00E+00	1.22E+02	0.00E+00	0.00E+00	<b>1.22E+02</b>
<b>Renewable primary resources used as material</b> First use materials from renewable sources with energy content used as a material	MJ	-1.89E+02	1.37E+03	4.50E+02	3.99E+01	<b>1.67E+03</b>
<b>Non-renewable primary resources used as an energy carrier</b> First use materials from non-renewable sources with energy content used as a fuel	MJ	8.53E+02	2.46E+01	0.00E+00	0.00E+00	<b>8.77E+02</b>
<b>Non-renewable primary resources used as material</b> First use materials from non-renewable sources with energy content used as a material	MJ	0.00E+00	7.53E+00	0.00E+00	2.73E+01	<b>3.48E+01</b>
<b>Recovered energy</b> Energy recovered from disposal of waste in previous systems	MJ	0.00E+00	1.01E+01	0.00E+00	3.66E+01	<b>4.67E+01</b>

\*Methods: TRACI 2.1

### Global warming potential summary



**194.3 kg total CO<sub>2</sub>-eq footprint**

## ADDITIONAL ENVIRONMENTAL INFORMATION

**Improper disposal of product:** At the end of its useful life, manage Steelcase products correctly in accordance with all applicable regulations for effective end-of-life management, including recycling, disposal, or incineration. Improper management may result in the release of chemicals that may represent a risk to the environment and human health & safety.

## REFERENCES

Life Cycle Assessment, LCA Report for Steelcase. WAP Sustainability Consulting. November 2022.

NSF BIFMA Product Category Rule (PCR) for Tables: UNCPC 3812.

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, Requirements and Guidelines.

ISO 14044:2006 Environmental Management – Life cycle assessment – Requirements and Guidelines.

ISO 14044: 2006/ Amd 1:2017 Environmental Management – Life cycle assessment – Requirements and Guidelines – Amendment 1.

**Steelcase®**

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