

# Flex Active Frames

# Certified Environmental Product Declaration

### **AMERICAS**



# About this product

Create your frame, fill your frame, personalize your frame – it's that easy with the simple system logic of Active Frames. Select your frame and shelves, determine your level of soft or hard enclosures and then make it yours.

The reference product is a combination of open static storage and moving parts with 10-year service life and 0.25 m³ of storage capacity. This storage product meets more than one PCR category.

Date of Issue: July 30, 2025 Date of Expiration: July 30, 2030

## About this document

This declaration describes the Life Cycle Assessment of Flex Active Frames produced for the Americas market by Steelcase Inc. in the United States and Mexico. The assessment is performed according to the ISO standards 14040 (2006), 14044 (2006) and 14025 (2006), and BIFMA PCR for Storage: UNCPC 3812 (9/2022) to generate an EPD for business-to-business communication.

#### 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 for any EPD-related questions or inquiries.

#### **ASSESSMENT OVERVIEW**

EPD commissioner	Steelcase® Inc
Corporate Address	901 44th Street SE Grand Rapids, Michigan 49508-7594 United States
Product group	Storage
Product name	Flex Active Frames
Product intended use	Storage
Product reference service life	10 years
Reference standards	ISO 14025, ISO 14040, ISO 14044
EPD scope	Cradle to grave
EPD number	EPD11004
Date of issuance	July 30, 2025
Date of expiration	July 30, 2030
EPD type	Product specific
EPD Product Coverage	Flex Active Frames for the Americas market
Intended audience	Business to business (B2B)
Year of reported manufacturer data	2023
Functional unit	Storage unit open static with moving parts, 0.25 m³ for a reference service life of 10 years
Applicable markets/regions	AMER
LCA software and database version	GaBi 10.6.2.9; GaBi database, 2022.2
LCIA methodology and version number	TRACI 2.1, IPCC AR6
Program administrator	NSF Certification LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org
Reference PCR and version number	BIFMA PCR for Storage: UNCPC 3812 (BIFMA PCR, 9/2022)
PCR reviewer	Review Panel Chaired by Dr. Thomas Gloria
EPD reviewer	External review conducted by:  Jim Mellentine, Thrive ESG This declaration and its Life Cycle Assessment was independently verified in accordance with ISO standards 14040 (2006), 14044 (2006), 14025 (2006), and BIFMA PCR for Storage UNCPC 3812 (9/2022).
LCA reviewer	External review conducted by:  Jim Mellentine, Thrive ESG The product Life Cycle Assessment was conducted in accordance with ISO 14044 and the reference PCR.
Disclaimer	The PCR this EPD was based on was written to determine the potential environmental impacts of a storage 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 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**

0.25m³ of storage space including packaging, for a reference service life of 10 years under ANSI/BIFMA X5.9.

#### **Product scope**

The products modeled is one Flex Active Frames configuration (including style numbers FLXAFDOOR, FLXAFFIXBOARD, FLXAFFRAME, FLXAFFRAMEEXT, FLXAFINF, FLXAFSHELF) with steel frames complete with shelving, coat rod, markerboard, and HPL enclosed cubbies with standard locks. This product is a combination of open and closed storage, subcategory 4.6 of the PCR. To match the functional unit of 0.25 m3, the results in this EPD were scaled down to 0.121 units. The assessment includes doors for the enclosed storage



but does not include any accessories or additional display items pictured in the photo to the right.

Manufacturing location Grand Rapids, MI and Tijuana, Mexico

#### Assessment goal and scope

The potential environmental impacts of Flex Active Frames 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 Storage: UNCPC 3812 (9/2022). Material acquisition and pre-processing (including transportation), production, distribution, use and end-of-life are assessed for the storage product.

#### **Assessment boundary**

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

	_	Stage	Status
F)	Cradle to inbound gate  MATERIALS ACQUISITION  Raw material extraction, pre-processing and transportation.  Transportation up to the factory gate and internal transport.	A1. Raw material supply  A2. Transport	✓ ✓
<u></u>	Gate to gate  PRODUCTION PROCESS  External and internal manufacturing of products, ancillary materials, parts, packaging.	A3. Manufacturing	<b>√</b>
		A4. Transport	✓
刊口		A5. Installation	<b>✓</b>
		B1. Use	<b>✓</b>
		B2. Maintenance/cleaning	✓
	Gate to grave	B3. Repair	✓
		B4. Replacement	<b>✓</b>
	DISTRIBUTION, USE AND END OF LIFE	<b>B5.</b> Refurbishment	<b>✓</b>
	Distribution of products, installation, use and end of life.	B6. Operational energy use	✓
		B7. Operational water use	✓
		C1. Disassembly	✓
		C2. Transport	✓
		C3. Waste processing	<b>✓</b>
		C4. Disposal	✓
	Beyond the boundary	D. Reuse/recovery	

#### **RESULTS**

The product composition, packaging composition, recycled content, recyclability visuals, and life cycle impacts below relate specifically to 0.25m³ (0.121 units) of the Flex Active Frames configuration listed above.

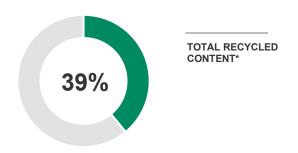
#### **Product composition**

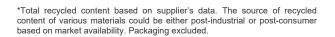
Material	Weight (kg)	Weight (%)	Resource Type
Laminate particleboard, MDF	18.669	63.24%	Recycled, Virgin Non- renewable
Steel	8.330	28.22%	Recycled, Virgin Non- renewable
TPO	0.586	2.80%	Virgin Non-renewable
PET	0.826	1.98%	Virgin Non-renewable
Zinc, Alloy	0.490	1.66%	Virgin Non-renewable
PA6/PA66 with/without filler	0.320	1.08%	Virgin Non-renewable
Aluminum	0.216	0.73%	Virgin and renewable
Other	0.085	0.29%	Virgin Non-renewable
Total	29.521	100%	

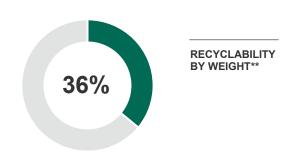
#### **Product** packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	3.653	84.31%	Renewable
Paper	0.547	12.62%	Renewable
PE foam	0.042	0.96%	Non-renewable
PET	0.027	0.63%	Non-renewable
POM	0.036	0.83%	Non-renewable
Fiberboard	0.003	0.08%	Renewable
Other	0.025	0.58%	Non-renewable
Total	4.333	100.00%	

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







<sup>\*\*</sup>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. Packaging excluded.

#### 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 IPCC 6, TRACI 2.1 characterization factors, as well as LCI indicators for primary energy and water usage. The results presented in this report are for 0.25 m³ (0.121 units) of Flex Active Frames 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.

of florid.		Life cycle stages				
	Unit	A1-A3 Production stage	A4-A5 Construction stage	B1-B7 Use Stage	C1-C4 End of life stage	Totals
*Global warming potential (excludes biogenic carbon) (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	5.62E+01	2.50E+00	0.00E+00	4.14E+00	6.29E+01
*Acidification Emissions that increase the acidity of the environment due to various chemical reactions and/or biological activity, or by natural circumstances.	kg SO2 eq	2.16E-01	2.40E-02	0.00E+00	1.76E-02	2.57E-01
*Photochemical ozone creation (Smog) Through various chemical reactions, which occur between nitrogen oxides (NOx) and volatile organic compounds (VOCs) in sunlight.	kg O3 eq	3.74E+00	4.37E-01	0.00E+00	9.23E-02	4.27E+00
*Eutrophication Enrichment of an aquatic ecosystem with nutrients (nitrates, phosphates) that accelerate biological productivity and an undesirable accumulation of algal biomass.	kg N eq	1.88E-02	1.40E-03	0.00E+00	3.83E-03	2.41E-02
*Ozone depletion Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	4.05E-08	6.78E-15	0.00E+00	9.85E-13	4.05E-08
Primary energy demand Energy consumption at the source.	MJ	1.37E+03	2.41E+01	0.00E+00	7.62E+00	1.40E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	1.06E+03	3.44E+00	0.00E+00	7.18E+00	1.07E+03
Renewable primary resources used as an energy carrier (RPRe) First use materials from renewable sources with energy content used as a fuel	MJ	3.66E+02	8.34E-01	0.00E+00	4.51E-01	3.67E+02
Renewable primary resources used as material (RPRm) First use materials from renewable sources with energy content used as a material	MJ	5.92E+01	0.00E+00	0.00E+00	0.00E+00	5.92E+01
Non-renewable primary resources used as an energy carrier First use materials from non-renewable sources with energy content used as a fuel	MJ	6.19E+02	2.32E+01	0.00E+00	7.17E+00	6.50E+02
Non-renewable primary resources used as material First use materials from non-renewable sources with energy content used as a material	MJ	1.33E+02	0.00E+00	0.00E+00	0.00E+00	1.33E+02
Recovered electrical energy (EEE) Electrical energy recovered from disposal of waste in previous systems	MJ	4.34E-01	6.91E-01	0.00E+00	5.13E+00	6.25E+00
Recovered thermal energy (EET) Thermal energy recovered from disposal of waste in previous systems	MJ	1.95E-01	2.97E-01	0.00E+00	2.56E+00	3.06E+00

\*Methods: TRACI 2.1, IPCC AR6

#### Global warming potential summary



62.9 kg total CO₂-eq footprint

#### ADDITIONAL ENVIRONMENTAL INFORMATION

**Indoor air:** Steelcase storage products are certified with SCS's Indoor Advantage Gold™ program, conforming to the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2021) and CDPH/EHLB Standard Method (CA 01350) v1.2-2017. The certification can be found <a href="https://example.com/here/en/method/en/method/">here/en/method/en

**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, Global Storage. Steelcase Inc. December 2024.

NSF BIFMA Product Category Rule (PCR) for Storage: UNCPC 3812. September 2022.

NSF Certification Policies for Environmental Product Declarations (EPD). November 1, 2022.

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.



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