

Leap[®]

AMERICAS, APAC



Certified
Environmental
Product Declaration
www.nsf.org



About this product

Leap[®] lets you dial in a precise fit in all the places you need it most. It's highly intuitive and you'll love the way the seat glides back and forth as you recline, keeping you connected to your work.

One chair is required to meet the functional unit of seating for one individual for a 10-year period.

Date of Issue: December 20, 2024
Date of Expiration: December 20, 2029

Learn more

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

About this document

This declaration describes the Life Cycle Assessment of the Leap chair produced for the Americas and APAC markets by Steelcase Inc. in Mexico and Malaysia. The assessment is performed according to the ISO standards 14040 (2006), 14044 (2006) and 14025 (2006), and BIFMA PCR for Seating: UNCPC 3811 (2020) to generate an EPD for business-to-business communication.

ASSESSMENT OVERVIEW

EPD commissioner	Steelcase® Inc
Corporate Address	901 44th Street SE Grand Rapids, Michigan 49508-7594 United States
Product group	Seating
Product name	Leap®
Product intended use	Office chair
Product reference service life	10 years
Reference standards	ISO 14025, ISO 14040, ISO 14044
EPD scope	Cradle to grave and Module D
EPD number	EPD11015
Date of issuance	December 20, 2024
Date of expiration	December 20, 2029
EPD type	Product specific
EPD Product Coverage	Leap for the Americas and APAC markets
Intended audience	Business to business
Year of reported manufacturer data	2023
Functional unit	One unit of seating to seat one individual for a reference service life of 10 years
Applicable markets/regions	Americas, APAC
LCA software and database version	GaBi 10.6.2.9; GaBi database, 2022.2
LCIA methodology and version number	TRACI 2.1
Program administrator	NSF Certification LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org
Reference PCR and version number	BIFMA PCR for Seating: UNCPC 3811 (BIFMA PCR, 2020)
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 Seating UNCPC 3811 (2020).
LCA reviewer	External review conducted by:  Jack Geibig, jgeibig@ecoform.com 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 seating 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 unit of seating to seat one individual for a reference service life of 10 years. One product required to fulfill the functional unit.

Product scope

One Leap chair (product number 46216179) produced in the Americas, with a plastic base, 4D arms, and hard casters was modeled for this EPD. This office chair is determined to be a typical product based on sales of the variations. The results presented for this configuration represent a baseline for the product.






Assessment goal and scope

The potential environmental impacts of Leap 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 Seating: UNCPC 3811 V3. Material acquisition and pre-processing (including transportation), production, distribution, use and end-of-life are assessed for the seating product.

Assessment boundary

The Life Cycle Assessment considers the full life cycle of the product as described here, cradle to grave. Life cycle stages included in this assessment follow the BIFMA PCR for Seating: UNCPC 3811 2020. Life cycle stages and phases are presented according to the PCR for seating.

	Stage	Status
 <p>Cradle to inbound gate MATERIALS ACQUISITION Raw material extraction, pre-processing and transportation of materials to suppliers.</p>	A1. Raw material supply	✓
	A2. Transport	✓
 <p>Gate to gate PRODUCTION PROCESS 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>Gate to grave DISTRIBUTION, USE AND END OF LIFE 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	✓
Beyond the boundary	D. Reuse/recovery	

TYPICAL CONFIGURATION RESULTS

The product composition, packaging composition, recycled content, and recyclability visuals below relate specifically to the typical configuration of Leap consisting of a chair with a plastic base and upholstered seat and back produced in the Americas. Product numbers represented by these results include: 46216179

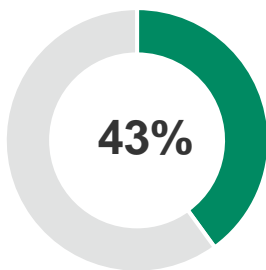
Product composition

Material	Weight (kg)	Weight (%)	Resource Type
Nylon	4.768	22.59%	Recycled, virgin non-renewable
Steel	11.359	53.81%	Recycled, virgin non-renewable
Polyoxymethylene (POM)	0.214	1.01%	Recycled, virgin non-renewable
Polyurethane (PU)	1.147	5.44%	Virgin non-renewable
Polypropylene	2.906	13.77%	Recycled, virgin non-renewable
PET	0.138	0.35%	Recycled, virgin non-renewable
ABS	0.074	2.10%	Virgin non-renewable
Polyester fabric	0.177	0.84%	Virgin non-renewable
Other	0.323	1.53%	Virgin non-renewable
Total	21.109	100%	

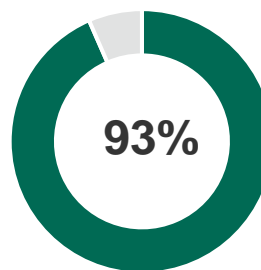
Product packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	7.070	98.48%	Renewable
Paper	0.009	0.13%	Renewable
HDPE	0.001	0.01%	Non-renewable
PE Foam	0.099	1.38%	Non-renewable
Total	7.179	100%	

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. Excludes packaging.

** 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. Excludes packaging.

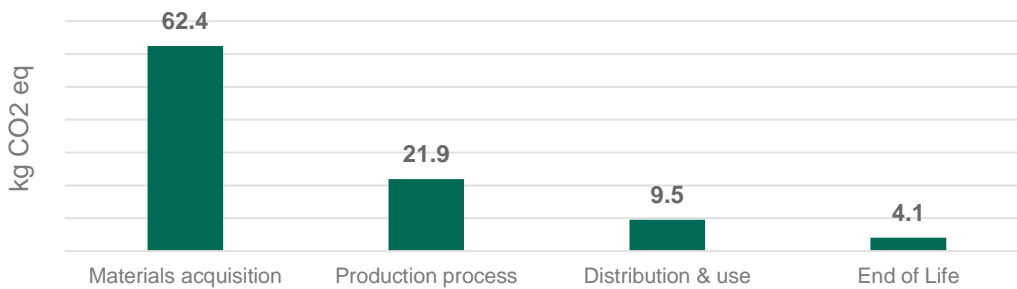
Life cycle impact by category and stage

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 seat maintained for one individual 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. Results for the typical configuration of one Leap chair, produced in the Americas, consisting of a plastic base, 4D arms, and hard casters are shown below.

	Unit	Life cycle stages				Totals
		Materials acquisition	Production process	Distribution & Use	End of life	
*Global warming potential (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	6.24E+01	2.19E+01	9.55E+00	4.11E+00	9.79E+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	1.93E-01	8.22E-02	5.98E-02	6.21E-03	3.41E-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	2.90E+00	1.00E+00	1.23E+00	1.44E-01	5.27E+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	1.26E-02	1.48E-02	4.61E-03	1.52E-03	3.35E-02
*Ozone depletion Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	1.12E-07	2.81E-10	2.81E-14	1.19E-12	1.12E-07
Primary energy demand Energy consumption at the source.	MJ	1.17E+03	5.73E+02	1.28E+02	1.17E+01	1.88E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	1.72E+03	1.69E+02	1.74E+01	1.12E+01	1.92E+03

*Methods: TRACI 2.1

Global warming potential summary



97.9 kg total CO₂ eq footprint

APAC CONFIGURATION RESULTS

Results for the alternative configuration of one Leap chair with the highest impacts, which is produced and sold in APAC, consisting of a primarily metal base, upholstered back and seat, adjustable seat depth, 4D arms, headrest, lumbar support, and hard casters are shown below. This configuration was determined to be a maximum impact configuration for the AMER/APAC regions because it has the most accessories and highest impact materials of all Leap chair and stool configurations. Product numbers represented by these results include: LEAP-20100, LEAP-10100, LEAP-10110, LEAP-20110, LEAP-11100, LEAP-21100, LEAP-11110, LEAP-21110.

Compared with the typical configuration, this product contains additional accessories (headrest, lumbar support) and uses aluminum for the base.

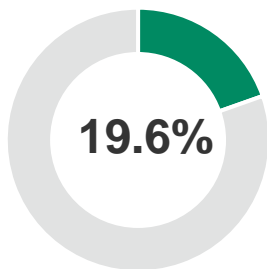
Product composition

Material	Weight (kg)	Weight (%)	Resource Type
Steel	12.870	47.30%	Recycled, Virgin non-renewable
Nylon (PA6 and PA66)	3.888	14.20%	Virgin non-renewable
Polypropylene (PP)	3.444	12.60%	Virgin non-renewable
Aluminum	2.805	10.30%	Recycled, virgin non-renewable
Polyurethane (PU)	2.799	10.30%	Virgin non-renewable
Polyoxymethylene (POM)	0.746	2.70%	Virgin non-renewable
Other	0.678	2.50%	Recycled, Virgin non-renewable
Total	27.231	100%	

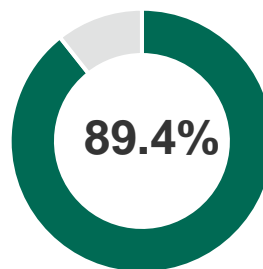
Product packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	11.730	99.62%	Renewable
Polyethylene (PE)	0.045	0.38%	Non-renewable
Total	11.775	100%	

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 seat maintained for one individual 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
		Materials acquisition	Production process	Distribution & Use	End of life	
*Global warming potential (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	1.40E+02	2.84E+01	1.84E+00	9.05E+00	1.79E+02
*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	4.50E-01	2.32E-01	3.00E-02	1.49E-02	7.27E-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	6.18E+00	3.75E+00	6.36E-01	1.41E-01	1.07E+01
*Eutrophication Enrichment of an aquatic ecosystem with nutrients (nitrates, phosphates) that accelerate biological productivity and an undesirable accumulation of algal biomass.	kg N eq	1.23E+01	6.13E+00	1.77E-01	5.57E-01	1.92E+01
*Ozone depletion Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	1.48E-10	1.99E-10	3.41E-15	5.63E-14	3.47E-10
Primary energy demand Energy consumption at the source.	MJ	2.39E+03	1.04E+03	2.47E+01	2.44E+01	3.48E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	6.56E+02	1.51E+02	3.80E-01	1.79E+01	8.25E+02

*Methods: TRACI 2.1

Global warming potential summary



ADDITIONAL ENVIRONMENTAL INFORMATION

Indoor air: Steelcase seating 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 for seating. The certification can be found [here](#).

REFERENCES

Life Cycle Assessment, LCA Report for Steelcase. WAP Sustainability Consulting. August 2023.

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.

Product Category Rule for Environmental Product Declarations, BIFMA PCR for Seating: UNCPC 3811 (ext. 2020-111)



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Contact
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