Environmental Product Declaration

Steelcase

Personality™ Plus

APAC

About this product

Personality™ Plus, a configurable and eco-friendly task chair incorporating Steelcase's Seating Insights and the industry's highest quality standards, the goal of our re-design efforts was to elevate the everyday comfort, performance and experience of people at work while offering a more sustainable approach to materials and design.

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

Date of Issue: July 16, 2025
Date of Expiration: July 16, 2030

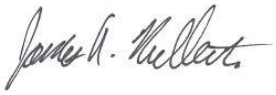
About this document

This declaration describes the Life Cycle Assessment of the Personality Plus chair produced for APAC markets by Steelcase Inc. in India. 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.

Learn more

- Explore Steelcase environmental philosophy and commitments overview.
- Find product details and sustainability certifications on the 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	Seating
Product name	Personality Plus
Product intended use	Office Chair
Product reference service life	10 years
Reference standards	ISO 14025, ISO 14040, ISO 14044
EPD scope	Cradle to grave
EPD number	EPD11108
Date of issuance	July 16, 2025
Date of expiration	July 16, 2030
EPD type	Product specific
EPD Product Coverage	Personality Plus task chairs for the APAC market, including the following codes: PUA100, PUA200, PUS100, PUS200
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	APAC
LCA software and database version	GaBi database 10.9.0.31, 2024
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 (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 on which this EPD was based was written to determine the potential environmental impacts of a seating furniture 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 under ANSI/BIFMA X5.4 2020.

Product scope

One Personality Plus task chair (product number PUA100) consisting of mesh back, 4D arms, hard casters, and a plastic base was modeled for this EPD. This office chair configuration is determined to be the most representative of all configurations.

One Personality Plus stool chair (product number PUS200) consisting of height adjustable lumbar, upholstered back and seat, hard casters, 4D arms, a headrest, and a stool with a primarily metal base and foot ring was modeled for this EPD. This office chair configuration is considered to have the highest impacts of all configurations produced in APAC, making the results presented in the EPD a conservative estimate for all products listed.

Manufacturing location	Product SKUs within the variation allowance	Applicable markets and regions
Pune, India	PUA100, PUA200, PUS100, PUS200	APAC

Assessment goal and scope

The potential environmental impacts of Personality Plus 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 (2020). production, construction, 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
	***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	✓
	***Gate to gate*** **PRODUCTION PROCESS** External and internal manufacturing of products, ancillary materials, parts, packaging.	**A3.** Manufacturing	✓
	***Gate to grave*** **DISTRIBUTION, USE AND END OF LIFE** Distribution of products, installation, use and end of life.	**A4.** Transport	✓
		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	

TASK CHAIR CONFIGURATION RESULTS

The product composition, packaging composition, recycled content, and recyclability visuals below relate specifically to the task chair configuration, consisting of mesh back, 4D arms, hard casters, and a plastic base.

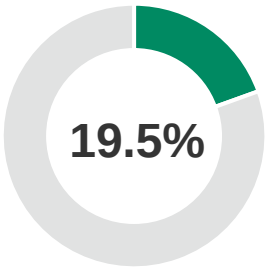
Product composition

Material	Weight (kg)	Weight (%)	Resource Type
Nylon	5.57	31.36%	Recycled, virgin non-renewable
Polypropylene	1.86	10.44%	Virgin non-renewable
Steel	9.05	50.91%	Recycled, virgin non-renewable
Foam	0.76	4.29%	Virgin non-renewable
ABS	0.17	0.93%	Virgin non-renewable
Fabric	0.04	0.20%	Virgin non-renewable
POM	0.33	1.84%	Virgin non-renewable
Other plastics	0.01	0.03%	Virgin non-renewable
Total	17.77	100%	

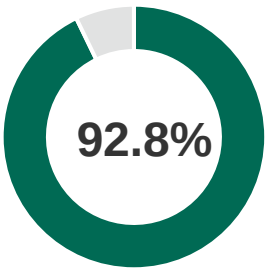
Product packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	1.800	95.46%	Renewable
Polyethylene (PE)	0.040	2.12%	Non-renewable
Total	1.84	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.

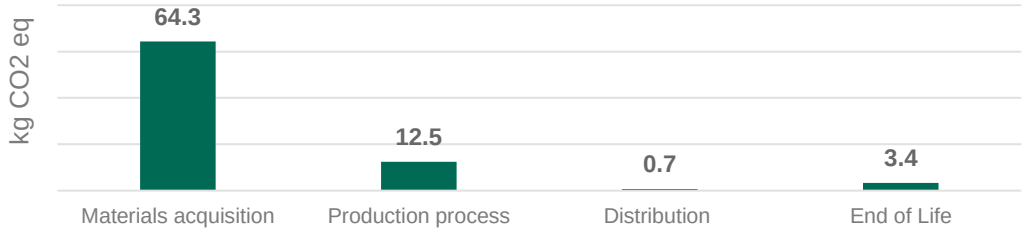
Life cycle impact by category and stage

Results for the Personality Plus Chair with the most representative configuration in APAC are shown below. Environmental impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using IPCC AR6, 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.

		Life cycle stages				
	Unit	**Materials acquisition**	**Production process**	**Distribution & Use**	**End of life**	***Totals***
***Global warming potential** excluding biogenic carbon (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	6.43E+01	1.25E+01	7.24E-01	3.40E+00	8.10E+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	1.83E-01	4.85E-02	4.42E-03	6.02E-03	2.42E-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	2.56E+00	6.95E-01	9.54E-02	1.55E-01	3.50E+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	1.17E-02	5.49E-03	3.07E-04	1.30E-03	1.88E-02
***Ozone depletion** Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	7.62E-08	6.26E-09	2.28E-15	3.18E-14	8.25E-08
Primary energy demand Energy consumption at the source.	MJ	1.30E+03	2.31E+02	5.74E+00	1.11E+01	1.55E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	4.79E+03	7.24E+01	6.15E-01	1.07E+01	4.87E+03

*Methods: TRACI 2.1

Global warming potential summary



81 kg total CO_2 eq footprint

STOOL CONFIGURATION RESULTS

The product composition, packaging composition, recycled content, and recyclability visuals below relate specifically to the configuration with the highest impacts, consisting of height adjustable lumbar, upholstered back and seat, hard casters, 4D arms, a headrest, and a stool with a primarily metal base and foot ring.

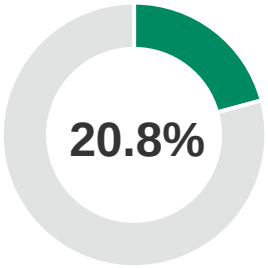
Product composition

Material	Weight (kg)	Weight (%)	Resource Type
Steel	8.925	35.01%	Recycled, virgin non-renewable
Aluminum	6.107	23.95%	Recycled, virgin non-renewable
Nylon (PA6 and PA66)	5.300	20.80%	Virgin non-renewable
Polypropylene (PP)	1.928	7.56%	Virgin non-renewable
Polyurethane (PU)	1.837	7.21%	Virgin non-renewable
Polyoxymethylene (POM)	0.939	3.68%	Virgin non-renewable
Acrylonitrile butadiene styrene (ABS)	0.316	1.24%	Virgin non-renewable
Other	0.14	0.55%	Virgin non-renewable
Total	25.496	100%	

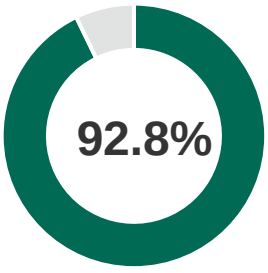
Product packaging composition

Material	Weight (kg)	Weight (%)	Resource Type
Cardboard	1.800	95.46%	Renewable
Paper	0.046	2.42%	Renewable
Polyethylene (PE)	0.040	2.12%	Non-renewable
Total	1.886	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.

Results for the configuration of one Personality Plus Chair with the highest impacts in APAC, consisting of height adjustable lumbar, an upholstered back and seat, hard casters, 4D arms, a headrest, and a stool with a primarily metal base and foot ring, are shown below. Product numbers represented by these results include: PUA100, PUA200, PUS100, and PUS200.

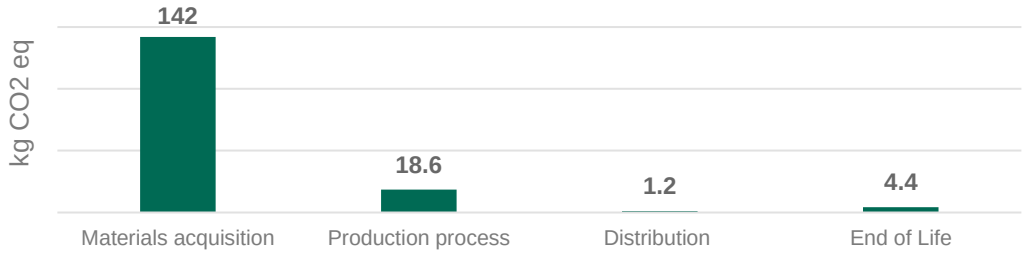
Life cycle impact by category and stage

Environmental impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using TRACI 2.1 and IPCC AR6 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.

		Life cycle stages				
	Unit	**Materials acquisition**	**Production process**	**Distribution & Use**	**End of life**	***Totals***
***Global warming potential** excluding biogenic carbon (100 years) Warming of the atmosphere caused by the global release of greenhouse gases.	kg CO2 eq	1.42E+02	1.86E+01	1.15E+00	4.41E+00	1.66E+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	4.73E-01	6.45E-02	1.10E-02	7.79E-03	5.56E-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	6.73E+00	9.87E-01	2.30E-01	1.95E-01	8.14E+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	2.33E-02	6.09E-03	6.14E-04	1.68E-03	3.17E-02
***Ozone depletion** Reduction of the stratospheric ozone layer due to anthropogenic emissions of ozone depleting substances.	kg CFC-11 eq	1.82E-07	5.50E-09	3.02E-15	3.89E-14	1.88E-07
Primary energy demand Energy consumption at the source.	MJ	2.20E+03	3.10E+02	1.11E+01	1.30E+01	2.54E+03
Net freshwater usage Freshwater used and otherwise not recoverable.	kg	4.97E+03	1.41E+02	6.84E-01	1.39E+01	5.13E+03

*Methods: TRACI 2.1

Global warming potential summary



166 kg total CO_2 eq footprint

REFERENCES

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

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

NSF BIFMA Product Category Rule (PCR) for Seating: UNCPC 3811 (2020).

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.

Contact
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