Environmental Product Declaration

Coalesse Ensemble Lounge System

AMERICAS



About this product

The Coalesse Ensemble Lounge System naturally combines intuitive performance with infinite design expression to create gathering places that work.

The reference product is one Coalesse Ensemble standalone one-seat fixed lounge (style COENLFLC).

Date of Issue: November 13, 2026
Date of Expiration: November 13, 2031

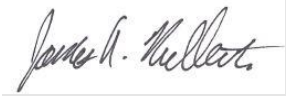
About this document

This declaration describes the Life Cycle Assessment of Coalesse Ensemble Lounge System produced for the Americas by Steelcase Inc. in Reynosa, Mexico. The assessment is performed according to the ISO standards 14040 (2006), 14044 (2006) and 14025 (2006), and BIFMA PCR for Seating: UNCPC 3811 v4 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	Seating
Product name	Coalesse Ensemble Lounge System
Product intended use	Lounge seating
Product reference service life	10 years
Reference standards	ISO 14025, ISO 14040, ISO 14044, ISO 21930
EPD scope	Cradle-to-gate with options A1-A3, A4-A5, B1, B4, C1-C4, and optionally D
EPD number	EPD11368
Date of issuance	November 13, 2026
Date of expiration	November 13, 2031
EPD type	Product specific
EPD Product Coverage	Coalesse Ensemble Lounge System
Intended audience	Business to business (B2B)
Year of reported manufacturer data	2025
Functional unit	One unit of seating to seat one individual for a reference service life of 10 years
Applicable markets/regions	Americas
LCA software and database version	GaBi 10.6.2.9; GaBi database, 2022.2
LCIA methodology and version number	TRACI 2.2, CML2001, IPCC AR6, ISO 21930
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 v4 (2025)
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) and 14025 (2006), BIFMA PCR for Seating: UNCPC 3811 v4, and ISO 21930.
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- gate with options A1-A3, A4-A5, B1, B4, C1-C4, and optionally D. 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

One unit of seating to seat one individual for a reference service life of 10 years. To fulfill the functional unit, 1 unit is required. Coalesse Ensemble Lounge System represents Option C: Lounge chair (single occupant) as defined in BIFMA PCR for Seating UNCPC 3811, Version 4 (2025).

Product scope

The product assessed is the Coalesse Ensemble standalone one-seat fixed lounge, with non-contrasting grade 1 fabric, two arms, textured black paint rail, steel foot, and no backer.



Manufacturing location	Product SKUs	Applicable markets and regions
Reynosa, Mexico	COENLFLC	Americas

Assessment goal and scope

The potential environmental impacts of Coalesse Ensemble Lounge System, 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 v4. Material acquisition and pre-processing (including transportation), production, distribution, use and end-of-life are assessed for the office chair product, except the following use stages that are excluded per the PCR: maintenance, repair, refurbishment, and operational energy use and water.

Assessment boundary

The Life Cycle Assessment considers the full life cycle of the product from cradle to gate A1-A3 with options, A4-A5, B1, B4, C1-C4, and optionally Module D. Life cycle stages included in this assessment follow the BIFMA PCR for Seating UNCPC3811 V4 2025. Because the BIFMA PCR serves as the core PCR, life cycle stages and phases are first presented according to the PCR for seating.

	Stage	Status
 ***Cradle to inbound gate*** **MATERIALS ACQUISITION** Raw material extraction, pre-processing and transportation of materials to suppliers.	**A1.** Raw material supply	✓
	A2. Transport	✓
 ***Gate to gate*** **PRODUCTION PROCESS** Transportation of furniture components and materials from Tier 1 suppliers to Steelcase final manufacturing facility. External and internal production	**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	MND
	B3. Repair	MND
	B4. Replacement	✓
	B5. Refurbishment	MND
	B6. Operational energy use	MND
	B7. Operational water use	MND
	C1. Disassembly	✓
	C2. Transport	✓
	C3. Waste processing	✓
	C4. Disposal	✓
Beyond the boundary	**D.** Reuse/recovery	MND

RESULTS

The product composition, packaging composition, recycled content, recyclability visuals, and life cycle impacts below relate specifically to one unit of seating to seat one individual for a reference service life of 10 years.

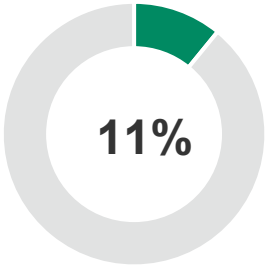
Product composition per functional unit

			Post-consumer		Pre-consumer	
Material	**Weight (kg)**	**Weight (%)**	**%**	**Weight (kg)**	**%**	**Weight (kg)**
Plywood	16.230	37.1%	0	0	0	0
PU foam	9.965	22.8%	0	0	0	0
Steel	7.826	17.9%	21.8%	1.705	20.0%	1.563
Aluminum	7.102	16.2%	11.2%	0.794	9.7%	0.688
Fiberboard	1.735	4.0%	0	0	0	0
PP	0.563	1.3%	0	0	0	0
Fabric polyester	0.290	0.7%	0	0	0	0
Adhesives	0.027	0.1%	0	0	0	0
PA6/66	0.001	0.0%	0	0	0	0
Total	**43.737**	**100%**	**5.7%**	**2.499**	**5.1%**	**2.251**

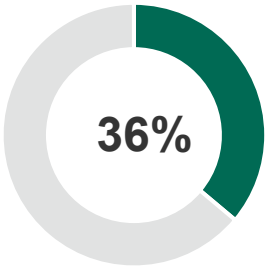
Product packaging composition per functional unit

			Post-consumer		Pre-consumer	
Material	**Weight (kg)**	**Weight (%)**	**%**	**Weight (kg)**	**%**	**Weight (kg)**
Cardboard	14.405	98.9%	40	5.762	0	0
HDPE	0.050	0.3%	0	0	0	0
Paper	0.071	0.5%	0	0	0	0
PP	0.040	0.3%	0	0	0	0
Total	**14.566**	**100%**	**39.6%**	**5.762**	**0%**	**0**

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 pre-consumer or post-consumer based on market availability.

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

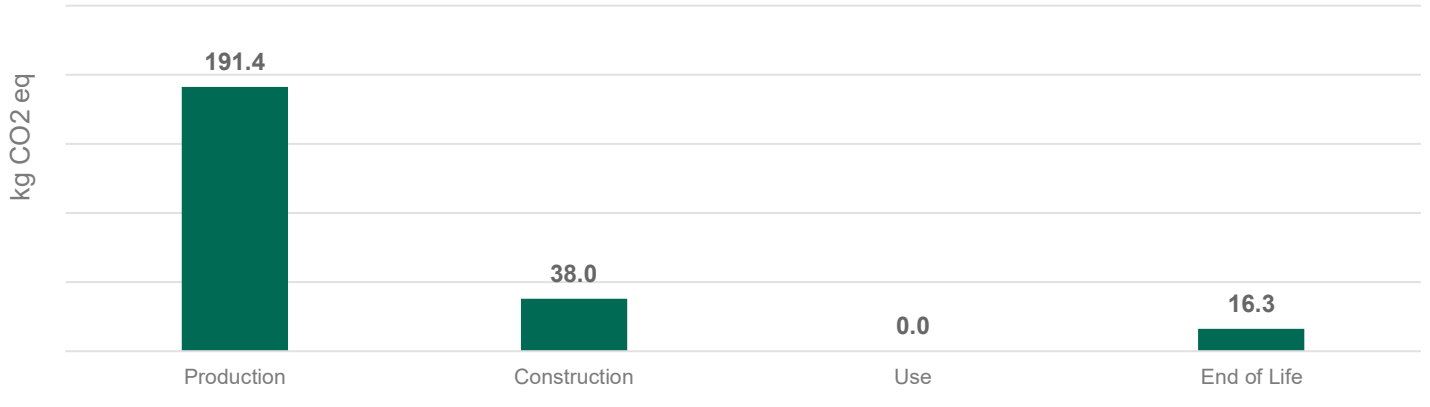
Life cycle impact by category and stage

Environmental impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using TRACI 2.2, IPCC AR6 characterization factors, CML 2001, and ISO 21930 for multiple indicators. Results presented in this report are one unit of seating to seat one individual for a reference service life of 10 years. Additionally, the results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks. Use stage modules B2, B3, B5-B7 not declared.

Methods: IPCC AR6, TRACI 2.2, ISO 21930, CML 2001

		Production	Construction		Use		End of life				
Environmental impact indicators	**Unit**	**A1 - A3**	**A4**	**A5**	**B1**	**B4**	**C1**	**C2**	**C3**	**C4**	**Totals**
(GWP) Global warming potential 100 years excludes biogenic carbon	kg CO_2 eq	1.91E+02	3.56E+01	2.44E+00	0	0	0	2.38E-01	4.95E+00	1.11E+01	2.46E+02
(GWP) Global warming potential 100 years includes biogenic carbon	kg CO_2 eq	1.30E+02	3.58E+01	4.57E+00	0	0	0	2.39E-01	9.50E+00	1.62E+01	1.97E+02
(AP) Acidification potential	kg SO_2 eq	1.01E+00	1.92E-01	7.67E-03	0	0	0	1.40E-03	1.05E-02	3.41E-02	1.26E+00
(POCP) Photochemical ozone creation (Smog)	kg O_3 eq	1.12E+01	4.41E+00	5.12E-02	0	0	0	3.73E-02	2.27E-01	1.73E-01	1.61E+01
(EP) Eutrophication - freshwater	kg P eq	1.15E-03	2.31E-05	2.34E-05	0	0	0	1.30E-07	5.51E-09	1.45E-04	1.35E-03
(EP) Eutrophication - marine	kg N eq	3.54E-01	1.80E-01	2.70E-03	0	0	0	1.20E-03	6.35E-03	1.07E-02	5.55E-01
(ODP) Ozone depletion	kg CFC 11-eq	1.04E-06	1.23E-11	6.19E-13	0	0	0	7.94E-14	9.23E-13	2.93E-12	1.04E-06
Carbon emissions and removals											
(BCRP) Biogenic carbon removal from product	kg CO2eq	3.01E+01	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	3.01E+01
(BCEP) Biogenic carbon emission from product	kg CO2eq	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	3.01E+01	3.01E+01
(BCRK) Biogenic carbon removal from packaging	kg CO2eq	2.28E+01	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	2.28E+01
(BCEK) Biogenic carbon emission from packaging	kg CO2eq	0.00E+00	0.00E+00	2.28E+01	0	0	0	0.00E+00	0.00E+00	0.00E+00	2.28E+01
(BCEW) Biogenic carbon emission from combustion of renewable waste used in production	kg CO2eq	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(CCE) Calcination carbon emissions	kg CO2eq	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(CCR) Carbonation carbon removal	kg CO2eq	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(CWNR) Carbon emission from combustion of non-renewable waste used in production	kg CO2eq	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Output flows and waste categories											
(HWD) Hazardous waste disposed	kg	1.26E-05	9.46E-08	6.92E-10	0	0	0	6.22E-10	6.33E-10	2.28E-09	1.27E-05
(NHWD) Non-hazardous waste disposed	kg	2.79E+01	5.30E-02	3.06E+00	0	0	0	3.26E-04	7.85E-01	2.13E+01	5.30E+01
(HLRW) High-level radioactive waste, conditioned, to final repository	kg	6.18E-05	1.64E-06	3.29E-08	0	0	0	1.06E-08	1.22E-07	7.94E-08	6.37E-05
(ILLRW) Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	5.38E-02	1.37E-03	2.80E-05	0	0	0	8.92E-06	1.03E-04	6.83E-05	5.54E-02
(CRU) Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(MFR) Materials for recycling	kg	2.12E+00	0.00E+00	9.88E+00	0	0	0	0.00E+00	7.83E+00	0.00E+00	1.98E+01
(MER) Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(EEE) Recovered electrical energy exported from the product system	MJ	1.00E+00	0.00E+00	2.17E+00	0	0	0	0.00E+00	1.88E+01	0.00E+00	2.20E+01
(EET) Recovered thermal energy exported from the product system	MJ	4.56E-01	0.00E+00	6.71E-01	0	0	0	0.00E+00	1.02E+01	0.00E+00	1.13E+01
Resource use indicators											
(RPRe) Renewable primary resources used as energy carrier	MJ	1.04E+03	1.82E+01	2.83E-01	0	0	0	1.04E-01	1.84E-01	1.26E+00	1.06E+03
(RPRm) Renewable primary resources with energy content used as material	MJ	2.03E+02	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	2.03E+02
(NRPRe) Non-renewable primary resources used as energy carrier	MJ	1.51E+03	4.52E+02	2.70E+00	0	0	0	2.96E+00	1.74E+01	8.27E+00	1.99E+03
(NRPRm) Non-renewable primary resources with energy content used as material	MJ	7.03E+02	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	7.03E+02
(SM) Secondary materials	kg	1.30E+01	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	1.30E+01
(RSF) Renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(NRSF) Non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(RE) Recovered energy	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(FW) Use of net freshwater resources including water from electricity generation	m^3	1.57E+00	1.40E-02	3.19E-03	0	0	0	8.29E-05	2.63E-02	2.54E-03	1.62E+00
Primary energy demand (renewable-nonrenewable energy and materials)	MJ	3.45E+03	4.70E+02	2.98E+00	0	0	0	3.07E+00	1.75E+01	9.52E+00	3.96E+03
(ADP) Abiotic depletion potential fossil	MJ	2.74E+03	4.48E+02	2.62E+00	0	0	0	2.94E+00	1.56E+01	8.07E+00	3.22E+03

Global warming potential summary



245.7 kg total CO_2-eq footprint

TECHNICAL INFORMATION AND SCENARIOS FOR MODULES BEYOND THE FACTORY GATE

A4: Transport to the installation site

Parameter	Value per product	Value per product
Transportation type	Truck trailer	Ship
Fuel consumption (l/km)	0.42 diesel	130 heavy fuel oil
Distance*	4,451 km	129 km

*Weighted average distance per product market share

A5: Installation in the building

Parameter	Value per functional unit
Installation Assumptions	No product waste Installed with hand tools
Energy use for installation	0 kWh
Transportation type for installation waste	Truck
Fuel consumption (l/km)	0.42 diesel
Distance	32.2 km
Packaging to recycling	9.885 kg
Packaging to energy recovery	0.936 kg
Packaging to landfill	3.745 kg

B1, B2, B3, B4, B5, B6, B7: Use

There are no emissions, resources used or transportation related to these modules

C1- C4: End-of-life

Parameter	Value per functional unit
Method of deconstruction	Hand tools
Method of recycling	Mechanical recycling
Method of energy recovery	Incineration
Final disposal of remaining parts	Landfilling
Transportation type	Truck
Fuel consumption (l/km)	0.42 diesel
Distance to waste processing site	32.2 km
Weight to recycling	7.848 kg
Weight to energy recovery	7.178 kg
Weight to landfill	28.712 kg

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.

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. *Updated by Steelcase March 2024.*

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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.

ISO 21930:2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services.

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

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Contact
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