



Product pictured is not the exact style of the product studied in this document.

Steelcase Series 1

Product Environmental Profile is an environmental declaration according to the objectives of ISO 14021. Precise, accurate, verifiable and relevant information on sustainability attributes of Steelcase Series 1.

Steelcase Series 1 makes high-quality seating attainable for everyone and everywhere. It delivers performance, style and choice, unprecedented in its class of seating. Best in class. A new class. By Steelcase.

The model chosen for analysis from the Steelcase Series 1 range is reference # 435A00. Standard features for Steelcase Series 1 include:

- Integrated LiveBack Technology
- Adjustable Lumbar
- Adjustable Arm options
- Adjustable Seat Depth
- Full range of fabric offering

Environmental Overview

Final Assembly Location

Final assembly of Steelcase Series 1 is in Kentwood, Michigan, USA for Steelcase for the Americas Market.

Life Cycle Performance >

Steelcase considers each phase of the life cycle: from materials extraction, production, transport, use and reuse, through the end of its life.

To measure the environmental impacts of Steelcase Series 1, Steelcase performed a Life-Cycle Assessment (ISO 14040-44), the results of which are disclosed in an Environmental Product Declaration (EPD – ISO 14025).

Materials >

Materials Composition

A break down of the basic materials in Steelcase Series 1.

Materials Chemistry

Steelcase's materials chemistry practice aims to design products with materials that support human and environmental health, throughout all phases of the life cycle.

Recycled Materials and Recyclability

Steelcase Series 1 contains 23.0% recycled materials, by weight (8.0% pre-consumer + 15.0% post-consumer).

At the end of its useful life, Steelcase Series 1 is 76.0% effectively recyclable by weight.

Certifications and Labels >

The environmental and social performance of Steelcase Series 1 is communicated through the following voluntary labels/certifications:

- Environmental Product Declaration (EPD)
- Cradle to Cradle Certified™
- SCS Indoor Advantage™ Gold
- BIFMA level®

LEED Contribution >

Steelcase Series 1 may contribute in the following areas:

- Recycled content
- Materials reuse
- Regional materials
- Low-emitting materials
- Interiors life-cycle impact reduction
- Building product disclosure and optimization - material ingredients
- Daylight and views
- Building product disclosure and optimization - sourcing of raw materials
- Quality Views
- Construction & Demolition Waste Planning & Management
- Environmentally Preferable finishes and furnishings
- Social equity in the supply chain

Life Cycle Performance

Steelcase considers each phase of the life cycle: from materials extraction, production, transport, use and reuse, through the end of its life.

Materials

This phase includes raw materials extraction and transformation into material ready to be used.

- **Steelcase Series 1 contains 23.0% recycled materials**, by weight (8.0% pre-consumer + 15.0% post-consumer).
- **Materials chemistry assessment** in progress for this product.
- **Eco-labelled textiles** OekoTex / EU Ecolabel / Cradle to Cradle Certified™ and rapidly renewable wool textiles available to specify with product.
- **Steelcase Series 1 contains 0.0% new wood by weight**. FSC certified wood is available as a special for some product lines.

Production

This phase comprises all production and assembly processes taking place at Steelcase or at their suppliers and sub-suppliers.

- This plant is ISO 14001 certified.
- Final assembly of Steelcase Series 1 is in Kentwood, Michigan, USA for Steelcase for the Americas Market.

Transport

This phase includes downstream transports.

- **Optimized packaging** to keep transportation volumes as low as possible and improve filling rates.
- Flat / Optimized packaging.
- Lightweight and delivered stacked.
- **Bulk packaging used for this product**, wherever possible, to optimize volume in shipping.
- **Product is shipped knocked down 7 pieces in all possible scenarios** - allowing for optimization of transport volume.
- Made in North America

Use

During the use phase of the product - the longest phase of the life cycle - no significant environmental impacts occur.

- **Designed for a long product life**, with replaceable parts that are easy to change.
- Maintenance information available upon request.
- Cleaning instructions available.

End of Use

Any product can become a resource itself, or be responsibly disposed of in different ways.

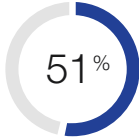
- **Designed to enable responsible end of use strategies** - re-selling, refurbishing, charitable donation or recycling.
- **76% recyclable by weight**, according to the current waste disposal schemes.
- **Designed for quick and easy disassembly of materials** - with no permanent assembly.
- **Primary plastic parts clearly labelled for easy sorting and effective recycling**, according to ISO 11469.
- **Disassembly and recycling directions available upon request**, for a representative configuration.
- **The Steelcase Phase 2 Program provides end-of-use, end-of-need and end-of-life disposition solutions that align with your Corporate Social Responsibility Goals.** For more information, and to see if this service is available in your area, please contact your Steelcase sales representative for more information.

For more information

Ask for the Environmental Product Declaration (EPD) (according to ISO 14025) which communicates the estimated environmental impacts of this product throughout its life cycle, using the life cycle assessment methodology ISO 14040/14044.

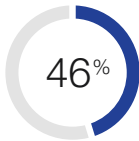
Materials

Steelcase Series 1 materials composition is listed below*.



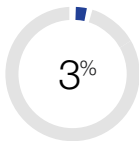
METALS

	kg	lb	%
Steel	5.8	12.8	30
Aluminum (cast)	4.1	9.0	21.1



PLASTICS

	kg	lb	%
Glass-filled nylon (PA-GF)	4.3	9.5	22.3
Polypropylene (PP)	3.2	7.1	16.4
Polyoxymethylene (POM)	0.5	1.1	2.4
Nylon (PA)	0.32	0.7	1.7
Polypropylene/ethylene propylene diene (PP/EPDM)	0.3	0.7	1.5
Polyethylene terephthalate (PET)	0.1	0.2	0.6
Other:	0.1	0.2	0.6



OTHER MATERIALS

	kg	lb	%
Polyurethane foam	0.7	1.5	3.4

TOTAL WEIGHT

19.4

42.8

*The list of materials does not contain all materials used in the product (adhesives, coatings, residuals, etc.).

Materials Chemistry

Steelcase's goal in its materials chemistry practice is to design products with materials that have been evaluated or assessed for several human and environmental health criteria – all in an effort to understand and optimize the products throughout their life cycle.

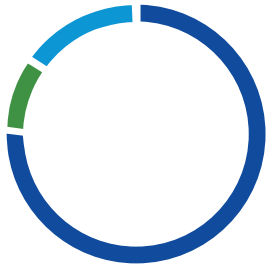
At least 75% of the materials in this product are currently in the process of being assessed and rated against 24 human health and environmental criteria.

Steelcase intends to refrain purchasing products, components, or materials containing any “Democratic Republic of the Congo (DRC) Conflict Minerals” (coltan (from which tantalum is derived), cassiterite (tin), gold, wolframite (tungsten), or their derivatives), and any other minerals or derivatives which the U.S. Secretary of State determines to be financing conflict in the DRC or an adjoining country.

Recycled Materials and Recyclability

Recycled materials are determined by weight and defined in accordance with the ISO 14021. They may include pre- and post-consumer materials:

- Pre-consumer materials (or post-industrial recycled materials) are materials diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.
- Post-consumer materials are materials generated by households or by commercial, industrial and institutional facilities in their role as end-users of the final product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.



STEELCASE SERIES 1

	kg	lb	%
Pre-consumer recycled content	1.6	3.5	8
Post-consumer recycled content	2.9	6.4	15
Total recycled content	4.5	9.9	23

- Pre-consumer - Recycled content
- Post-consumer - Recycled content
- Virgin material

Calculations of recycled materials are based on data provided by professional organizations, suppliers and other available information. Recycled content figures are based off of product weight only, and exclude packaging for evaluation to LEED contribution and other purposes. This data may include industry averages, ranges or other broadly based information. Steelcase makes conservative assumptions when compiling this information to provide the most accurate recycled content calculations possible but variability in market conditions or manufacturing processes may result in higher or lower content. This document will be reviewed and updated periodically and is subject to change without notice.

Recyclability

Steelcase considers a material recyclable if it can be effectively collected, sorted, processed, and converted into raw materials to be used in the production of new products.* Recyclability calculation does not include packaging.



76%

According to the available waste management infrastructures, we estimate that 76% is recyclable.

*Excludes packaging. To be compliant with applicable regulations, Steelcase calculations are based on the materials having physical properties that allow recycling, our evaluation of the ability to disassemble the products and the actual availability of recycling services in the markets where the products are sold.

Certificates

To show continuous improvements, Steelcase communicates the environmental and social performance of its products through voluntary labels and declarations.

ON THE PRODUCTS

EPD

This product is currently going through the LCA methodology, which results will be communicated through a voluntary Type III Environmental Product Declaration, according to the objectives of ISO 14025.

BIFMA level®

This product is targeted for BIFMA level® certification. BIFMA level® is the sustainability certification program for furniture. This certification program assesses a products impact to materials, energy & atmosphere, human & ecosystem health, and social responsibility.

Cradle to Cradle Certified™

This product is targeted for Bronze Cradle to Cradle™ certification ⁽²⁾ which assesses and rates products for material health, material reutilization, renewable energy and carbon management, water stewardship, and social fairness.

SCS Indoor Advantage™ Gold

This product is targeted for SCS Indoor Advantage™ Gold certification ⁽¹⁾ according to the indoor air quality emissions requirements defined by the ANSI/BIFMA M7.1- 2011.

ON THE MATERIALS

Cradle to Cradle Certified™

A selection of Cradle to Cradle Certified™ textiles are available. Cradle to Cradle Certified™ ⁽²⁾ products are evaluated for material health, material reutilization, renewable energy and carbon management, water stewardship, and social fairness.

ON THE PLANTS

ISO 14001

The plant in Kentwood, Michigan, USA is ISO (International Organization for Standardization) 14001 - Environmental management system certified.

⁽¹⁾ Indoor Advantage™ and Indoor Advantage™ Gold are trademarks of Scientific Certification Systems.

⁽²⁾ Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.

LEED V3 – 2009

LEED, or Leadership in Energy & Environmental Design, is a green building certification program that recognizes best-in-class building strategies and practices. Steelcase Series 1 may contribute to a project's pursuit of LEED certification across the three rating systems:

- LEED-ID+C - Interior Design & Construction 2009 (formerly LEED-CI)
- LEED-BD+C - Building Design & Construction 2009 (formerly LEED-NC, LEED-Core & Shell & LEED-Schools)
- LEED-O+M - Operations & Maintenance (formerly LEED-EB)

CREDITS	RATING SYSTEM			POTENTIAL CONTRIBUTION*
	ID+C	BD+C	O+M	
Materials & Resources				
Recycled content	MRc4	MRc4 Healthcare: MRc5 Option 3	MRc2.2: Sustainable purchasing- Furniture	Steelcase Series 1 contributes to the project recycled content criteria: post-consumer (15.0)% + ½ pre-consumer (8.0)% = 19.0%.
Materials reuse	MRc3.2	Healthcare: MRc5 Option 3		If chosen for reuse, this product can contribute to the 30% valuation of the furniture & furnishings budget.
Regional materials	MRc5	Healthcare: MRc5 Option 3		Steelcase Series 1 is assembled in Kentwood, Michigan, USA for NA orders. Projects <500 miles (800 km) from this location qualify.
Indoor Environmental Quality				
Low emitting materials	EQc4.5	Healthcare: MRc5 Option 2	N/A	Steelcase Series 1 is targeted for SCS Indoor Advantage™ Gold certification (depending on options) for indoor air quality in NA.
Daylight and views	EQc8.1 & 8.2	EQc8.1 & 8.2**	EQc2.4	Steelcase offers a range of products and application thought starters to assist customers in achieving these credits.

*For Potential Contribution: These are the probable contributions; exact contributions will be dependent on the LEED rating system and the specific product.

**For LEED BD+C: New Construction, these standards do not currently apply to furniture in the IEQ credit; however, the USGBC has allowed equivalent credit for furniture / furnishings when submitted as an Innovation in Design credit.

LEED V4

LEED is a rating system that drives integrated design thinking as it relates to various aspects of green buildings. Steelcase Series 1 can contribute to a project's pursuit of LEED Certification across the three rating systems:

- LEED-ID+C - Interior Design & Construction
- LEED-BD+C - Building Design & Construction
- LEED-O+M - Operations & Maintenance

CREDITS	RATING SYSTEM			POTENTIAL CONTRIBUTION*
	ID+C	BD+C	O+M	
Materials & Resources				
Interiors life-cycle impact reduction	Option 2: Furniture Reuse	N/A		Steelcase products are designed to be long lasting and durable-- often making reuse a feasible option, depending on project needs and desirability.
Interiors life-cycle impact reduction	Option 3: Design for flexibility	N/A		If chosen for reuse, this product can contribute to the 30% valuation of the furniture & furnishings budget.
Building product disclosure and optimization - sourcing of raw materials	Option 2: Leadership extraction practices	Option 2: Leadership extraction practices	Purchasing - facility maintenance and renovation	Extended Producer Responsibility - Steelcase offers different end of use / end of life programs for different markets, to reuse, resell, refurbish, donate, or recycle the mix of existing assets – all in an effort to divert materials from the landfill (See notes below).
		Healthcare - Medical furniture & furnishings	Option 2: furniture	Bio-based materials - Steelcase offers select textile and surface material options that may contribute to this credit.
		Option 3: Multi-attribute assessment		Wood products - Steelcase offers FSC™ certified wood as an option on select products, which contributes to this option.
				Materials Reuse - If chosen for reuse, this product can contribute.
				Recycled content - (15.0%) post-consumer + ½ pre-consumer (8.0%) = 19.0%.
Building product disclosure and optimization - material ingredients	Option 1: Material Ingredient Reporting	Option 1: Material Ingredient Reporting	Purchasing - facility maintenance and renovation	Steelcase Series 1 is targeted for Cradle to Cradle™ certification which contributes to this credit.
		Furniture and medical furnishings	Option 2: Furniture	Steelcase Series 1 is targeted to achieve ANSI/BIFMA e3-2014 credit 7.5.1.3 at 90% or greater which contributes to this credit.
		Option 1: Minimal chemical content		
Construction & Demolition Waste Planning & Management	Required	Required	N/A	Steelcase uses several innovative packaging initiatives to minimize our waste impact (see transport section). These efforts may help to contribute, in part, towards achieving this prerequisite or credit.

*For Potential Contribution: These are the probable contributions; exact contributions will be dependent on the LEED rating system and the specific product.

CREDITS	RATING SYSTEM			POTENTIAL CONTRIBUTION*
	ID+C	BD+C	O+M	
Indoor Environmental Quality				
Low emitting materials	Option 1: Product Category Calculations or Option 2: Budget Calculation Method	Required Option 1: Product Category Calculations or Option 2: Budget Calculation Method Furniture and medical furnishings Option 2: testing and modeling of chemical content	Purchasing - facility maintenance and renovation Option 2: Furniture	Steelcase Series 1 is targeted for SCS Indoor Advantage™ Gold certification for indoor air quality in NA.
Quality views	Credit	Credit	Daylight and quality views Option 2: Quality views	Steelcase offers a range of products and application thought starters, though several other factors play into achieving this credit, beyond the scope of furniture.

Other Potential LEED V4 Contributions

Pilot Credits: The following credits are potential contribution areas for Steelcase products and applications				
Environmentally preferable finishes and furnishings	MR Pilot	MR Pilot	N/A	Steelcase Series 1 is targeted for level® certification, which contributes to this pilot credit.
Social equity in the supply chain	N/A	MR Pilot	N/A	Steelcase Series 1 is targeted for level® certification, which contributes to this pilot credit which demonstrates compliance to ANSI/BIFMA e3 Sustainability Standard – Social Responsibility sections 8.7.2.1 and 8.7.2.2

*For Potential Contribution: These are the probable contributions; exact contributions will be dependent on the LEED rating system and the specific product

Refer to www.usgbc.org for LEED Program details.

Steelcase sustainability related actions and results are communicated annually in the [Corporate Sustainability Report](#).

Steelcase®

Visit Steelcase.com

 facebook.com/Steelcase
 twitter.com/Steelcase
 youtube.com/SteelcaseTV

05/2017 © 2014 Steelcase Inc. All rights reserved. All specifications subject to change without notice. Trademarks used herein are the property of Steelcase Inc. or of their respective owners.