



B-Free table stool

Product Environmental Profile is an environmental declaration according to the objectives of ISO 14021. Precise, accurate, verifiable and relevant information on sustainability attributes of B-Free table stool.

B-Free range welcomes varied work postures -reading, reclining, or leaning in to a conversation. From focused individual work to a casual meeting, B-Free provides thoughtful, comfortable support.

Table stool is convenient for nearby informal meeting during the work day and provides support for tools and papers.

The model chosen for analysis is the most representative line (reference # N3L T00 460) from the B-Free table stool range. Standard features on this model include:

- melamine top
- painted legs

Environmental Overview

Final Assembly Location

Final assembly of B-Free table stool is in Sarrebourg, France by Steelcase for the EMEA (Europe, Middle East and Africa) markets.

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 >

Materials Composition

A break down of the basic materials in B-Free table stool.

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

B-Free table stool contains 38.0% recycled materials, by weight (22.0% pre-consumer + 16.0% post-consumer).

At the end of its useful life, B-Free table stool is 98% effectively recyclable by weight.

Certifications and Labels >

The environmental and social performance of B-Free table stool is communicated through the following voluntary labels/certifications:

- NF Environnement
- NF OEC
- PEFC™
- Cradle to Cradle Certified™
- SCS Indoor Advantage™ Gold

LEED Contribution >

B-Free table stool 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
- Construction & Demolition Waste Planning & Management

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.

- **B-Free table stool contains 38.0% recycled materials**, by weight (22.0% pre-consumer + 16.0% post-consumer).
- **Materials** chemistry assessment completed for this product.
- **Plastic parts** do not contain pigments with Cadmium, Chrome VI and Mercury.
- **No additional adhesives** between edge band and particle board (seamless edge banding), depending on colours.
- **Low formaldehyde emissions** of wood-based components, according to ISO 16000 (<20 µg/m³).
- Is made with wood sourced from **responsibly managed forests**.
- **Product comes standard with PVC-free edge banding**.
- **Packaged with 90% recycled cardboard**.
- **No REACh Substances of Very High Concern (SVHC)** present at concentrations greater than 0.1% according to data/declarations provided by our suppliers.
- **No flame retardants nor phthalates nor biocides** added as defined by the requirements of NF Environnement and Blauer Engel RAL-UZ 38.
- **Materials** used in the manufacturing and assembly of our products are not specified to contain nanomaterials.
- **No use of wood from genetically modified trees**.

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 and OHSAS 18001 certified**.
- Final assembly of B-Free table stool is in Sarrebourg, France by Steelcase for the EMEA (Europe, Middle East, and Africa) markets.
- **The coating systems operate in accordance with the requirements of the European VOC Directive**.

Transport

This phase includes downstream transports.

- **Optimized packaging** to keep transportation volumes as low as possible and improve filling rates.
- Made in Europe.

Use

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

- **Product meets** ANSI/BIFMA Standards M7.1/X7.1 for low- VOC emissions to indoor air quality - SCS Indoor Advantage™ Gold.
- **Designed for a long product life**, with replaceable parts that are easy to change.
- Cleaning with only soapy water.
- Maintenance information available upon request.

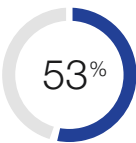
End of Use

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

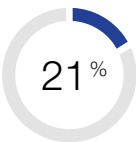
- **Designed to enable responsible end of use strategies** - re-selling, refurbishing, charitable donation or recycling.
- **98% effectively recyclable by weight**, according to the current waste disposal schemes.
- **100% effectively recyclable packaging**.
- **Designed for quick and easy disassembly of materials** - with no permanent assembly.
- **Primary plastic parts clearly labelled for easy sorting and effective recycling**, according to ISO 11469.
- **Steelcase offers a comprehensive asset management service for furniture that is no longer needed**. For more information, and to see if this service is available in your area, please contact Eco'Services at eco-services@steelcase.com.

Materials

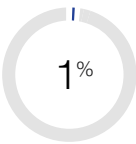
B-Free table stool materials composition is listed below*.



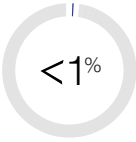
METALS		
	kg	%
Steel	3.8	52.9



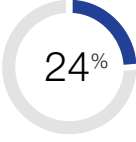
WOOD BASED MATERIALS		
	kg	%
Particle board	1.6	21.4



PLASTICS		
	kg	%
Polypropylene (PP)	<0.1	0.3
Polycarbonate (PC)	<0.1	0.3



OTHER MATERIALS		
	kg	%
Powder coating	<0.1	0.4
Adhesive	<0.1	<0.1



PACKAGING		
	kg	%
Cardboard	1.6	21.7
Low density polyethylene (LDPE)	0.1	1.9
Polypropylene (PP)	0.1	0.7

TOTAL WEIGHT – incl. packaging 7.2

*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 have been assessed and rated against 24 human health and environmental criteria. As a result of the assessment, this product has been Cradle to Cradle Certified™⁽¹⁾ (Bronze).

We have contacted our suppliers for all products sold in the European Union to ensure that our products are compliant with REACh (Registration, Evaluation, Authorization and Restriction

of Chemicals). When information from suppliers is not available, we rely on testing to ensure that our products meet required standards.

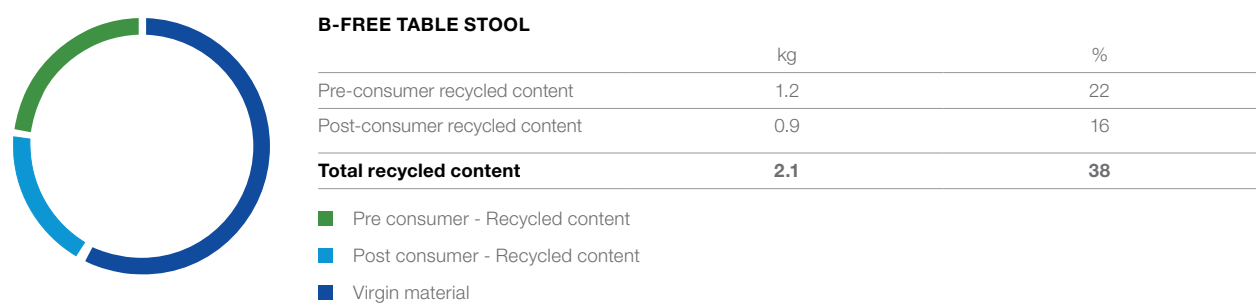
Steelcase intends to avoid from purchasing products, components, or materials containing any “Democratic Republic of the Congo (DRC) Conflict Minerals” (coltan (from which tantalum is derived), cassiterite (tin), gold, wolframite (tungsten), or their derivatives), and any other minerals or derivatives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

⁽¹⁾ Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.

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:

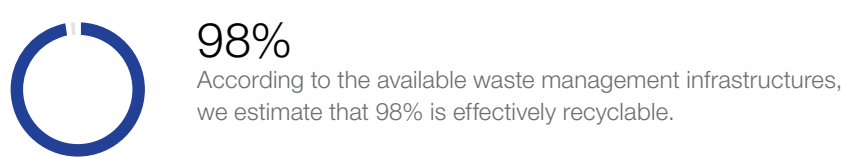
- Pre-consumer materials (or post-industrial recycled materials) are materials diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated 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.



*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.



*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 that actual availability of recycling services in the markets where the products are sold.

Certifications and Labels

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

ON THE PRODUCTS

Cradle to Cradle Certified™

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

NF Environnement

This product is NF Environnement certified, meaning it complies with 20 product lifecycle criteria.

NF Office Excellence Certifié

This product is NF OEC (Office Excellence Certifié) certified, meaning it complies with safety, ergonomic, environmental and social requirements.

SCS Indoor Advantage™ Gold

This product is SCS Indoor Advantage™ Gold, certified according to the indoor air quality emissions requirements defined by the ANSI/BIFMA M7.1- 2011.

ON THE MATERIALS

PEFC™

At least 100% of the wood components in this product are PEFC™ (Programme for the Endorsement of Forest Certification) labelled, ensuring that wood originates from sustainably managed forests. Chain of custody: FCBA/06-00787.

E1

The wood based materials of this product comply with the E1 standard of emissions / concentration of formaldehyde.

ON THE PLANTS

ISO 14001

The plant in Sarrebourg, France is ISO (International Organization for Standardization) 14001 - Environmental management system certified.

OHSAS 18001

The plant in Sarrebourg, France is OHSAS 18001 (Occupational Health and Safety Assessment Series) management system certified.

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. B-Free table stool 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	B-Free table stool contributes to the project recycled content criteria: post-consumer (16%) + ½ pre-consumer (22%) = 27.0%.
Materials reuse	MRc3.2	MRc3 Healthcare: MRc5 Option 3		If chosen for reuse, this product can contribute to the 30% valuation of the furniture & furnishings budget.
Regional materials	MRc5	MRc5 Healthcare: MRc5 Option 3		B-Free table stool is assembled in Sarrebourg, France for EMEA orders. Projects <500 miles from this location qualify.
Indoor Enviromental Quality				
Low emitting materials	EQc4.5	Healthcare: MRc5 Option 2	N/A	B-Free table stool is SCS Indoor Advantage™ Gold (depending on options) certified for indoor air quality in.

*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. B-Free table stool 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	Purchasing- facility maintenance & renovation Option 2: Furniture	Steelcase products are designed to be long lasting and durable-- often making reuse a feasible option, depending on project needs and desirability.
Building product disclosure and optimization - material ingredients	Option 1: Material Ingredient Reporting	Option 1: Material Ingredient Reporting		B-Free table stool is Cradle to Cradle Certified™ Bronze, which contributes to this credit.
		Medical Furniture & Furnishings		
		Option 1: Multi-attribute assessment		
Indoor Enviromental 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	Purchasing - facility maintenance and renovation	B-Free table stool is SCS Indoor Advantage™ Gold certified for indoor air quality in EMEA.
		Furniture and medical furnishings	Option 2: Furniture	
		Option 2: testing and modeling of chemical content		

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

Other Potential LEED V4 Contributions

CREDITS	RATING SYSTEM			POTENTIAL CONTRIBUTION*
	ID+C	BD+C	O+M	
Materials & Resources				
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.

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

Steelcase sustainability related actions and results are communicated annually in the **Corporate Sustainability Report**. ➔

Steelcase®

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