

**Lifespan Healthcare LLC
270 Scientific Drive
Norcross, GA 30092**

Being environmentally responsible, inside and out, is a responsibility we take seriously. For that reason we take care to select and use products that are Earth friendly and people friendly. As a result, we create healthy interior spaces that care for the needs and well being of the occupants as well as our Earth by way of the lifecycle production processes of the products we've used. Below is a brief description of the products selected for the Lifespan Healthcare LLC facility at 270 Scientific Park Drive in Norcross, GA. Attached to this summary overview is a more detailed account of each product noted herein.

CARPET (Showroom + Corridors):

Shaw Contract's "Green With Envy" collection's "First in Line" carpet tile is made of 100% eco solution q premium branded nylon and an ecoworx® backing and features 38.2% post industrial recycled content, a FlorSept® system antimicrobial protection, and a Lifetime Commercial warranty.

eco solution q premium branded nylon:

A cradle to cradle product that is forever recyclable and that utilizes an average of 23 million pounds of recycled content annually.

ecoworx® backing:

a 100% PVC-free recyclable backing system with recycled content, made from thermoplastic polyolefin compound with a fiberglass reinforcing layer providing, among other things, Lower BOC's (bioactive organic compounds) and smoke density test results than PVC and is 100% recyclable with recycled content and lower embodied energy than PVC.

CARPET (Offices + Innovative Area):

Shaw Contract's "Green With Envy" collection's "First in Line" carpet tile is made of 86% eco solution q premium branded nylon and an ecoworx® backing and features 38.2% post industrial recycled content, a FlorSept® system antimicrobial protection, and a Lifetime Commercial warranty.

VINYL PLANK (Showroom):

SDI's vinyl plank is 100% recyclable and requires no wax or finishing. It's nonporous and does not harbor the growth of molds, mildews, or bacteria. The primary raw material used to make vinyl, common salt, is a practically unlimited natural resource. It's wear layer provides superior durability and long product life.

RIKETT QUARTZ TILE (Research, Production, and Distribution Areas):

This tile was chosen instead of VCT due to its superior strength which reduces the need for replacement tiles, low lifecycle costs, reduced wax and maintenance requirements which reduce the use and disposal of stripping and finishing chemicals, and environmental production responsibility including the use of 85% of post-industrial waste and the conservation of water through the production process. Rikett® quartz tile is applauded by environmentalists because of its 70% quartz no waste composition, recyclability, and long life which keeps it out of landfills. Rikett® Quartz tile is also GreenGuard® certified for Indoor Air Quality for low VOC emitting materials, adhesives, and sealants.

It's also made in the USA. It provides 3 accredited LEED points: 1 point for raw material sourced within a 500 mile radius of the factory, 1 point for product made of 70% natural resources, and 1 point for using renewable natural resources.

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PAINT:

A variety of eco friendly Sherwin Williams paints that feature low odor and VOC's (volatile organic compounds) known for creating and contributing to poor indoor air quality and related health problems were used for this project.

CEILING TILE:

Ceiling tiles were selected for excellent light reflectance reducing the need for excess lighting, low formaldehyde content for positive indoor air quality, recycled content, recyclability, and warranty properties to ensure long product life. Armstrong is a manufacturer that is dedicated to true Green principals and created a ceiling tile reclamation program to keep product from being landfilled during renovation.

CORTEGA (Research, Production, and Distribution Areas):

Earns 5 of 7 LEED credits, has low formaldehyde VOC's, and is eligible for the recycling program

GEORGIAN #1752 (Training, Conference, Offices, and Corridors):

Earns 5 of 7 LEED credits, has low formaldehyde VOC's, has excellent light reflectance, is anti-microbial, is wash, impact, and scratch resistant, has a 30 year warranty and is eligible for the recycling program.

ULTIMA #1911 (Reception, Open offices 1 + 2, Showroom, and Break Room):

Selected for its excellent acoustic absorption for the comfort of the occupant in an open area, this product also has one of the highest light reflectance values available, has zero added formaldehyde, is anti-microbial, and boasts a 30 year warranty.

LIGHTING:

The need for lighting was reduced due to daylight harvesting. Fluorescent lighting, known to have a long bulb life and low energy use, was used where appropriate. Most of the incandescent and all of the halogen lighting are dimmable. Using dimmers not only makes the lighting more comfortable to the occupants, but increases the bulb life and reduces the energy used by the lamps. For the halogen track lighting we used a special Phillips 37 watt bulb that creates better light quality, uses less power than the 50 watt bulb and reduces the heat output so that the HVAC system doesn't have to expend as much energy cooling the space, and when dimmed by only 10% (barely noticeable to the eye) nearly doubles the life of the bulb.

FURNISHINGS:

Herman Miller prides themselves on their environmental responsibility. They are committed to the use of 100% renewable energy and to achieving the goal of zero air and water manufacturing emissions by the year 2020. They implement a stringent policy of returnable and recyclable packaging of closed loop recycling systems for repeat recycling.

Aeron desk chairs are ergonomically superior for the occupant, are made of 66% recycled materials and are 94% recyclable at the end of their useful lives.

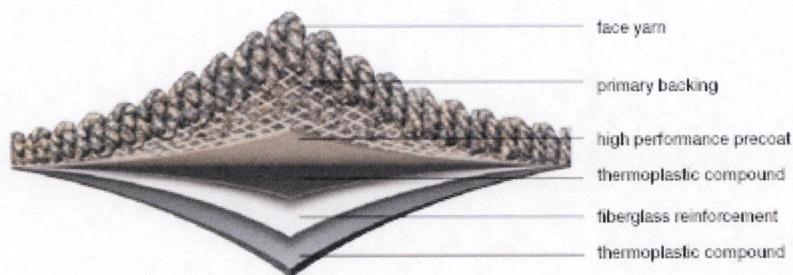
Caper guest chairs are made of 21% recycled materials and are up to 100% recyclable at the end of their useful lives.

Ethospace office furnishings are made of 35% recycled materials and are up to 78% recyclable at the end of their useful lives.

My Studio open area office furnishings are made of 30% recycled materials and are up to 69% recyclable at the end of their useful lives.

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shaw contract group

*backing specification***Style: First in Line Tile | 59283 Color: MINERAL | 83595****backing specification**

what:	100% PVC-free recyclable backing system with recycled content, made from thermoplastic polyolefin compound with a fiberglass reinforcing layer
where:	High performance environments requiring modular flooring
why:	<ul style="list-style-type: none"> • thermoplastic alternative to PVC • Dimensional stability of PVC with 50% less weight • Superior de lamination and edge ravel strength to PVC • Lower BOC's and smoke density test results than PVC • 100% recyclable with recycled content and lower embodied energy than PVC
how:	<ul style="list-style-type: none"> • Full spread Shaw Sureset N5000 releasable adhesive • Ecoworx ES, Shaw's environmental self-adhesive system
warranty:	Lifetime commercial
name	Ecworx™ Backing System
backing description	100% PVC-free recyclable backing system with recycled content, made from thermoplastic polyolefin compound with a fiberglass reinforcing layer
backing process	5 step process <ol style="list-style-type: none"> 1. Performance precoat for maximum tuft bind and moisture resistance 2. Thermoplastic laminate for superior delamination strength 3. Fiberglass reinforcement for unmatched stability 4. Final thermoplastic layer for added stability 5. Die-cut into carpet tiles
primary	Synthetic

stabilizer	Fiberglass Mat
weight	75 oz/sq yd (average)
dimensions	24" x 24" (standard); optional sizes available
testing	Radiant Panel Fire -Class 1 (based on pile construction) NBS Smoke < 450 TVOCs < 500 micrograms/sqm/hr (meets CRI Green Label requirements)
antimicrobial	FlorSept® system antimicrobial protection
installation	Full spread Shaw Sureset N5000 releasable adhesive Ecoworx ES, Shaw's environmental self-adhesive system
warranty	Lifetime commercial
shawtile.com	to download details on installation, testing, specifications, and warranties on-line
shaw inforum	call 1.877.502.7429 for personal assistance

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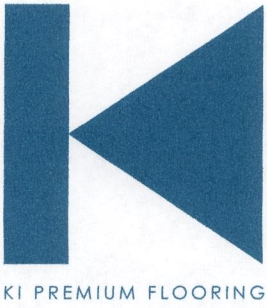
EcoSolution Q Overview

eco[®]solution Q[®]

from Shaw Fibers

- * Shaw Fibers is the largest extruder of solution dyed yarn.
 - * Shaw Fibers has been extruding premium carpet fiber since 1992.
 - * Eco Solution Q[®] Premium Branded type 6 Nylon began incorporating recycled content in 1996.
 - * The Eco Solution Q[®] pom set contains over 200 brilliant colors from which to choose.
 - * Eco Solution Q[®] has been fully assessed by the MBDC protocol for its environmental intelligence. As a Cradle to Cradle product, Eco Solution Q[®] can be recycled in a continuous loop, again and again, forever.
 - * Eco Solution Q[®] utilizes an average of 23 million pounds of recycled content annually. This number will continue to increase with the increase in production.
 - * Eco Solution Q[®] has exceptional warranty coverage – equal to or better than all other premium branded fibers in the industry:

Colorfastness to Light	Lifetime
Colorfastness to Atmospheric Contaminants	Lifetime
Stain	Lifetime
SFU (Standard Fading Units)	200 hours
Abrasive Wear	Lifetime
Static	Lifetime
	Less than 3.0 KV
 - * Eco Solution Q[®] was designed by a carpet manufacturer that understands the demands placed on carpet. Shaw is a vertically integrated company which means that we control all aspects of carpet production. We are able to guarantee quality at each step of the manufacturing process, from raw material all the way to the delivery of your carpet.
 - * In 2003 Eco Solution Q[®] was ranked as one of the top 100 products for facility managers by Buildings Magazine.
 - * Eco Solution Q[®] has one of the largest DPF's (Denier Per Filament) in the industry at 24, as well as the strongest tensile strength.
-



LEED Points

KIPF 3 Accredited LEED Points

- 1 point** - Raw materials sourced within a 500 mile radius of the the factory.
- 1 point** - Product made from 70% natural resources
- 1 point** - Natural resource which is renewable

Rikett® quartz



Rikett® quartz is committed to preserving our natural environment by manufacturing certified environmentally responsible floor tiles.

Stays on floors, not in land fills

Rikett® quartz is made of 70% natural quartz, an abundant renewable resource. Quartz gives the tile an extraordinarily long life span. There are many examples throughout the world where Rikett® quartz has been on floors for more than 40 years. The tile stays on floors, not in land fills.

Responsible manufacturing

We incorporate environmentally friendly systems into our manufacturing process.

- 85 % of post-industrial waste is reincorporated into the process in order to eliminate unnecessary waste disposal and maintain conscientious recycling efforts.
- The quartz is received pre-washed and passed through dust filters before entering the manufacturing process. Enclosed pneumatic systems are used to eliminate dust in the workplace.
- Evaporative cooling and closed water cooling systems are employed. The latter prevents the release of process water. This also allows for the conservation of water throughout the production process.
- The manufacturing facility complies with all of the U.S. Occupational Safety and Health Organization (OSHA) requirements.

Certified air quality

Rikett® quartz tile has been tested by Air Quality Sciences, and has been certified by the Greenguard Environmental Institute for Indoor Air Quality.

GreenGuard Certification also meets the following criteria:

- California's Collaborative for High Performance Schools (CHPS)
Meeting section 01350 criteria for Indoor Air Quality
(This also is included in the Scientific Certification Systems (SCS) criteria for environmentally preferable products (EPP) which will be used by the state architect to develop a database for EPP.)
- Green Guide to Health Care
EQ 4.3 for Low-Emitting Materials: Flooring Systems

- Leadership in Energy and Environmental Design (LEED version 2.1)
Contributes towards 1 point for Credit 4.3 for Low Emitting Materials
LEED standards were developed by the United States Green Building Council (USGBC) to help develop high performance sustainable buildings nationwide.
Contributes towards 1 point for Credit 4.1 Low Emitting Materials, Adhesives and Sealants
- South Coast Air Quality Management District Standards.
- Green Globes™ System for New Construction
Contributes 45 points under G.2 – Control of Indoor Pollutants
The Green Globes™ system was introduced in the United States in 2004. It was adapted from a Canadian protocol of the same name, and is one of only two green building rating systems recommended by the Canadian government in its *Guidelines for the Use of Building Performance Assessment Tools*.

Rikett® quartz low VOC maintenance products limit the disposal of chemicals. The high (2,000 PSI) compression ratio adds to the environmental benefits:

- Creates a very hard surface, reducing the need for stripping and finishing chemicals
- Requires fewer replacement tiles over the life of the building

Local Green Building Organizations:

Rikett® quartz tile also assists facility managers, architects and contractors receive credits, points or benefits from many local and state green building organizations. These organizations include:

Green Building Program
Scottsdale, AZ

Minnesota Sustainable Design Guide
Hennepin County, MN

Built Green Kitsap
Kitsap County, WA

Built Green Colorado
Denver, CO

Build Green Program
Kansas City, MO

Green Points Program
Boulder, CO

Portland Green Rated
Portland, OR

Green Building Program
Austin, TX

Florida Green Building Coalition
Florida

For More Information about Rikett® quartz tile please contact us at:
1.800.356.0740 or www.rikettquartz.com

PAINT SPECS:

All specified paint products are Sherwin Williams.

**The following paint products have been specified in an effort to maintain Eco Sensitive environments per client initiative toward LEED building specifications.

Paints P-1 through P-4 will be (for ease of touch-up):

- 1st Coat: S-W Harmony Low Odor Interior Latex Primer, B11W900
- 2nd Coat: S-W Harmony Low Odor Interior Latex Flat, B5 Series
- 3rd Coat: S-W Harmony Low Odor Interior Latex Flat, B5 Series

Paints P-5 and P-6 will be (for ease of wipe-down):

- 1st Coat: S-W Harmony Low Odor Interior Latex Primer, B11W900
- 2nd Coat: S-W Harmony Low Odor Interior Latex Eg-Shel, B9 Series
- 3rd Coat: S-W Harmony Low Odor Interior Latex Eg-Shel, B9 Series

Paint P-7 for WOOD applications will be (for durability and cleaning):

- 1st Coat: S-W PrepRite ProBlock Interior Latex Primer, B51W20
- 2nd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss, B31 Series
- 3rd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss, B31 Series

Paint P-7 for METAL applications will be (for durability and cleaning):

- 1st Coat: S-W ProCryl Universal Primer, B66-310 Series
- 2nd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss, B31 Series
- 3rd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss, B31 Series

****Should a more cost effective alternative be desired, please use:**

GYP:

- S-W PrepRite® 200 Latex Primer, B28W200 and
- S-W ProMar® 200 Latex, B30W200 Series - in finishes as detailed above

WOOD:

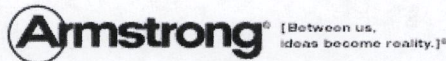
- S-W PrepRite® Wall & Wood Oil Primer/Undercoater, B49
- S-W ProClassic® Interior Alkyd Semi-Gloss, B34 Series

METAL:

- S-W Water Based Catalyzed Epoxy, B70/B60V25 Series

PAINT COLORS:

- P-1: SW 0036 Buckram Binding
- P-2: SW 7044 Amazing Gray
- P-3: SW 6415 Hearts of Palm
- P-4: SW 6212 Quietude
- P-5: SW 6635 Determined Orange
- P-6: SW 0044 Hubbard Squash
- P-7: SW7031 Mega Griege - all door trim, wood base, and crown moulding



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Knowledge & Inspiration Selection Tools Products Specs & Technical Contacts

Mineral Fiber

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- [Endura](#)
- [Fine Fissured](#)
- [Mesa](#)
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Fiberglass

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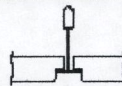
Ultima







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Description	Performance	Toolbox
Ultima combines the exceptionally impact and scratch-resistant DuraBrite surface and excellent sound absorption in a smooth, nondirectional visual that fits a wide variety of grid options. HumiGuard Plus no sag performance and BioBlock paint to inhibit surface growth of mold and mildew. Coordinates with Optima for mixed (open/closed plan) applications. Now available as a TechZone™ Ceiling System. Click here for more details and product availability.		Warranty (PDF) CAD Drawings Calculate Reverberation Time  Recycling Program
		 View Room Scene
		 <p>30 Year Guarantee Against Visible Sag Against Mold/Mildew & Bacteria</p>

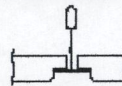
 **Chat LIVE Online**
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 Expert On-line
 or call 1-877-ARMSTRONG








Beveled Tegular 9/16 IN



Item #	Dimensions	Color	Acoustics	Fire Resist	Light Reflect	Sag Resist	Anti-microbial	VOC Formaldehyde
								
1905	30 X 30 X 3/4 IN 	White	NRC:0.70 CAC: 35 AC: N/A	Class A (UL)	0.90	Standard	BioBlock+	Low
1912	24 X 24 X 3/4 IN 	White	NRC:0.70 CAC: 35 AC: N/A	Class A (UL)	0.90	HumiGuard Plus	BioBlock+	No Added
1915	24 X 48 X 3/4 IN 	White	NRC:0.70 CAC: 35 AC: N/A	Class A (UL)	0.90	HumiGuard Plus	BioBlock+	No Added
1916	12 X 24 X 3/4 IN 	White	NRC:N/A CAC:N/A AC:N/A	Class A (UL)	0.90	HumiGuard Plus	BioBlock+	No Added

Beveled Tegular 15/16 IN



Item #	Dimensions	Color	Acoustics	Fire Resist	Light Reflect	Sag Resist	Anti-microbial	VOC Formaldehyde
								
1911	24 X 24 X 3/4 IN 	White	NRC:0.70 CAC: 35 AC: N/A	Class A (UL)	0.90	HumiGuard Plus	BioBlock+	No Added
1914	24 X 48 X 3/4 IN 	White	NRC:0.70 CAC: 35 AC: N/A	Class A (UL)	0.90	HumiGuard Plus	BioBlock+	No Added

CORTEGA®

Square Lay-In & Tegular

medium texture

Recycled Content: 23-49%, Fire Guard 31-40%
 Contact TechLine™ for LEED Information: 1-877-ARMSTRONG

LEED Credits						
Energy	Waste Mgmt	Recycled Content	Local Materials	Renewable Materials	Low-Emitting Materials	Daylight & Views
	✓	✓	✓	✓	✓	

Key Selection Attributes

- Economical
- Washable vinyl latex paint (Item 761)

Typical Applications

- Utility rooms
- Discount stores



Color

See front of sheet

Visual Selection

Performance Selection

Dots represent highest level of performance.

Grid Face	Edge Profile	Item Number	Dimensions	UL Classified Acoustics NRC	CAC	Fire Resist	Light Reflect	Sag Resist	Anti-Microbial	VOC Formaldehyde	Recycling Program	Durable	
CORTEGA Square Lay-In													
15/16"	Square lay-in	770	2' x 2' x 5/8"		0.55	33	Class A	0.82	Standard	-	Low	Yes	Standard
		824	2' x 2' x 5/8"		0.55	35	Fire Guard	0.82	Standard	-	Low	Yes	Standard
		747	2' x 4' x 5/8"		0.55	40	Class A	0.82	Standard	-	Low	Yes	Standard
		761*	2' x 4' x 5/8"		0.55	35	Class A	0.82	Standard	-	Low	Yes	Washable
		769	2' x 4' x 5/8"		0.55	35	Class A	0.82	Standard	-	Low	Yes	Standard
		769NF	2' x 4' x 5/8"		0.55	35	Class A	0.82	Standard	-	No Added	Yes	Standard
		823	2' x 4' x 5/8"		0.55	35	Fire Guard	0.82	Standard	-	Low	Yes	Standard
		773	20" x 5' x 5/8"		0.55	35	Class A	0.82	Standard	-	Low	Yes	Standard
		772	2' x 5' x 5/8"		0.55	35	Class A	0.82	Standard	-	Low	Yes	Standard
CORTEGA Tegular													
9/16"	Beveled Tegular	2195	2' x 2' x 5/8"		0.55	35*	Class A	0.82	Standard	-	Low	Yes	Standard
15/16"	Angled Tegular	704	2' x 2' x 5/8"		0.55	33	Class A	0.82	Standard	-	Low	Yes	Standard
		704NF	2' x 2' x 5/8"		0.55	33	Class A	0.82	Standard	-	No Added	Yes	Standard
		816	2' x 2' x 5/8"		0.55	35	Fire Guard	0.82	Standard	-	Low	Yes	Standard
		703	2' x 4' x 5/8"		0.55	35	Class A	0.82	Standard	-	Low	Yes	Standard

* Washable vinyl latex paint

* Installations in Healthcare facilities need to meet HIPAA oral privacy requirements

Physical Data

Material

Wet-formed mineral fiber

Surface Finish

Factory-applied latex paint

761 - Factory-applied vinyl latex paint

Fire Performance

Class A: Flame Spread 25 or under (UL Labeled) per ASTM E 1264

Fire Guard: A fire resistive ceiling when used in applicable UL assemblies

ASTM E 1264 Classification

Type III, Form 2, Pattern C D

761 - Type IX, Form 2, Pattern C D

No Added/Low Formaldehyde

No Added Formaldehyde - free of formaldehyde-based resins.

Outperform CHPS Section 1350 requirements. (Independent test reports available upon request).

Low Formaldehyde - contributing less than 13.5 ppb in typical conditions per ASHRAE Standard 62, "Ventilation for Acceptable Indoor Air Quality," California Code Title 24, and other building types in CHPS Section 1350.

Insulation Value

2195, 704, 816, 703 -

R Factor - 1.6 (BTU units)

R Factor - 0.28 (Watts units)

747, 770, 772, 761, 769, 773, 823, 824 -

R Factor - 1.5 (BTU units)

R Factor - 0.26 (Watts units)

Backloading Recommendation

Contact TechLine for specific information

Weight; Square Feet/Carion

See product details at armstrong.com/ceilings

30-Year Performance Guarantee & Warranty Information

See warranty details at armstrong.com/ceilings

Application Considerations

Tech Black products should be handled with gloves to prevent marking with fingerprints. Objectionable surface dust may occur with frequent handling of Tech Black products. In these situations, Tech Black products are not recommended for bright open spaces.

Recommended Suspension System

Items	Suspension System
770, 747, 761, 769, 773, 772	15/16" PRELUDE
823, 824	15/16" PRELUDE XL Fire Guard
2195	9/16" TRIMLOK® Screw-Slot 9/16" SILHOUETTE® Bolt-Slot
703, 704	15/16" PRELUDE
816	15/16" PRELUDE XL Fire Guard

Also Compatible With

2195*	9/16" SUPRAFINE™
CAC 33	9/16" INTERLUDE®
	9/16" SONATA™

TechLine™ / 1 877 ARMSTRONG

1 877 276 7876

armstrong.com/ceilings (search: cortega)

CS-3017-207

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GEORGIAN™

Square Lay-in & Tegular
medium texture

Recycled Content: 39-46%, Fire Guard 49%
Contact TechLine™ for LEED Information. 1-877-ARMSTRONG

LEED Credits						
Energy	Waste Mgmt	Recycled Content	Local Materials	Renewable Materials	Low-Emitting Materials	Daylight & Views
✓	✓	✓	✓	✓	✓	✓

Key Selection Attributes



- Unique painted visual
- Durable
 - Washable
 - Impact-resistant
 - Scratch-resistant

30-Year System Performance Guarantee

Against Visible Sag
HumiGuard® Plus
(excludes item 791)



Against Mold/Mildew & Bacterial Growth
BioBlock™ Plus
(excludes item 791)

- Economical
- Good sound absorption

Typical Applications

- Offices
- Schools closed for summer
- Classrooms
- Corridors
- Auditoriums
- Many types of commercial interiors

Color



White (WH)

GEORGIAN Beveled Tegular with PRELUDE 15/16" Exposed Tee grid

Visual Selection

Performance Selection



Dots represent highest level of performance.

Grid Face	Edge Profile	Item Number	Dimensions	UL Classified Acoustics		Fire Resist	Light Reflect	Sag Resist	Anti-Microbial	VOC Formaldehyde	Recycling Program	Durable		
				NRC	CAC							Wash	Impact	Scratch
GEORGIAN														
9/16"	Beveled Tegular	1753	2' x 2' x 5/8"	0.55	35♦	Class A	0.86	HumiGuard+	BioBlock+	Low	Yes	Wash	Impact	Scratch
15/16"	Square Lay-in	764	2' x 2' x 5/8"	0.55	33	Class A	0.86	HumiGuard+	BioBlock+	Low	Yes	Wash	Impact	Scratch
		763	2' x 4' x 5/8"	0.55	33	Class A	0.86	HumiGuard+	BioBlock+	Low	Yes	Wash	Impact	Scratch
		898	2' x 4' x 5/8"	0.55	35	Fire Guard	0.86	HumiGuard+	BioBlock+	Low	Yes	Wash	Impact	Scratch
		791	30" x 5' x 3/4"	0.55	33	Class A	0.86	Standard	-	Low	Yes	Wash	Impact	Scratch
	Beveled Tegular	1752	2' x 2' x 5/8"	0.55	35	Class A	0.86	HumiGuard+	BioBlock+	Low	Yes	Wash	Impact	Scratch

Physical Data

Material

Wet-formed mineral fiber

Surface Finish

Factory-applied latex paint

Fire Performance

Class A: Flame Spread 25 or under (UL Labeled) per ASTM E 1264
Fire Guard: A fire resistive ceiling when used in applicable UL assemblies

ASTM E 1264 Classification

Type III, Form 2, Pattern C E

Sag Resistance

HumiGuard Plus – superior resistance to sagging in high humidity conditions up to, but not including, standing water and outdoor applications.

Low Formaldehyde

Low Formaldehyde – contributing less than 13.5 ppb in typical conditions per ASHRAE Standard 62, "Ventilation for Acceptable Indoor Air Quality," California Code Title 24, and other building types in CHPS Section 1350.

Anti Mold/Mildew & Bacteria

BioBlock Plus contains an anti-microbial treatment and provides guaranteed resistance against growth of mold/mildew and Gram-positive and Gram-negative odor/stain-causing bacteria for 30 years.

Insulation Value

R Factor - 1.6 (BTU units)
R Factor - 0.28 (Watts units)

Backloading Recommendation

Contact TechLine for specific information

Weight; Square Feet/Cartron

See product details at armstrong.com/ceilings

30-Year Performance Guarantee and Warranty Information

See warranty details at armstrong.com/ceilings

Recommended Suspension System

Items	Suspension System
1753	9/16" TRIMLOK® Screw-Slot 9/16" SILHOUETTE® Bolt-Slot
763, 764, 791	15/16" PRELUDE®
1752	15/16" PRELUDE
898	15/16" PRELUDE XL Fire Guard

Also Compatible With

1753♦ 9/16" SUPRAFINE™
CAC 33 9/16" SONATA™
9/16" INTERLUDE® XL

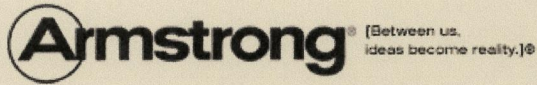
TechLine™ / 1 877 ARMSTRONG
1 877 276 7876

armstrong.com/ceilings (search: georgian)

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Printed in the United States of America • 10% post consumer waste. Printed with vegetable inks. ♻️ Recyclable.





- SUSTAINABILITY
- PRODUCTS
- PROGRAMS
- USGBC / LEED
- CASE STUDIES
- RESOURCES

NEWS MEDIA

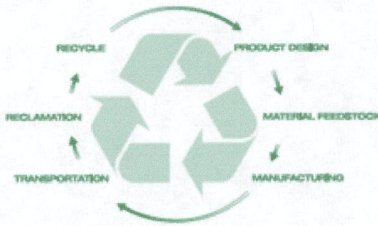
- Indoor environmental quality
- Recycling
- Energy
- Acoustics

Programs > Recycling

RECYCLING PROGRAMS

Even as early as 1860, Armstrong has pioneered "green practices", first in North America and moving worldwide. Our quality and process-driven culture are the seeds that drive innovation in all areas of our business. In 1999, as evidence of this commitment, we introduced the first commercial ceilings recycling program in the industry.

Our commitment continues to our products and services designed to be environmentally preferable. In your careful selection of products that meet various sustainable attributes, we have the solutions to fit your specifications.



Find a Certified Recycling Contractor in your Region:

- [Mid-Atlantic and Northeast Regions](#)
- [Chicago Metro Region](#)

For all other locations in the US and Canada:

Contract Armstrong Techline for assistance with your next Recycling Project 1-877-276-7876 or email bpotechline@armstrong.com.

Downloads

- [Food Lion \(PDF - 50K\)](#)
- [Penn State \(PDF - 184K\)](#)
- [AE Smith Building \(PDF - 46K\)](#)

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**RENOVATIONS AT SUN LIFE PLAZA IN CALGARY
FEATURE FIRST CEILING RECYCLING IN CANADA**

*As Part of Recent Renovations, Sun Life Financial Reclaimed 250,000
Square Feet of Old Ceiling Tiles Rather Than Dumping Them in Landfills*

Nearly 250,000 square feet of old ceiling tiles from the Sun Life Plaza office towers in Calgary are finding new life.

The reason: Sun Life Financial, the towers' owner and manager, is the first building owner in Canada to take advantage of a unique, recently introduced ceiling recycling program.

As a result of the program, more than 160,000 pounds of old acoustical ceiling tiles, or enough tiles to fill 62 large 20-cubic-yard construction containers, have now been diverted from landfills, helping Sun Life Financial fulfill its corporate commitment to protect the environment.

Located in downtown Calgary, Sun Life Plaza was constructed in 1982 and consists of three 28-floor towers housing a total of approximately 1.3 million square feet, much of which is devoted to office space for oil and gas companies.

Nearly 250,000 square feet of that office space was recently renovated for the purpose of updating it, not just for new tenants, but existing tenants as well. As part of the renovation, the 20-year-old acoustical ceiling panels were removed and replaced with new panels.

Program Offers Alternative to Landfill Disposal

In a renovation project of this type, the old suspended ceiling panels would normally have been removed, thrown into a roll-off container, and eventually hauled to a landfill for disposal. In the case of Sun Life Plaza, however, the old panels are finding new life as a result of a unique ceiling recycling program offered by Armstrong Ceiling Systems, the world's largest manufacturer of acoustical ceilings.

The program, which is the only one of its kind, enables building owners to ship old ceilings from renovation projects to an Armstrong ceiling plant as an earth-friendly alternative to landfill disposal. As part of the program, the company even pays freight costs for shipping the old ceilings, which it uses as raw materials in the manufacture of new acoustical ceilings. Over 16,000,000 square feet, or 10,700,000 pounds, of discarded ceiling tiles have been recycled since Armstrong began the program.

Scott Perron, Operations Manager at Sun Life Plaza, explains that he learned about the opportunity to recycle the old ceiling tiles during the purchasing process. "The local Armstrong representative informed us that the Ceiling Recycling Program, which has been in operation in the U.S. for a number of years, was now being offered in Canada as well.

"Sun Life is very proactive when it comes to the environment," he continues. "The ability to recycle old ceilings is much more environmentally responsible compared to the traditional dumping process, and was very attractive to us."



The Sun Life Plaza office towers in Calgary are the site of the first Armstrong ceiling recycling project in Canada. Nearly 250,000 square feet of old tiles were reclaimed.

case study

Ceiling Recycling Program Requires Three Steps

The program involves three steps. First, the building owner or contractor needs to verify with Armstrong that the old ceiling tiles can be recycled. The old ceilings do not have to be Armstrong products to qualify for the program. In the case of Sun Life Plaza, the old 20"x 60" ceiling panels were found to be recyclable and thereby eligible for the program. They were replaced with new Cortega™ ceiling panels from Armstrong.

Following verification, the owner or contractor must then stack the old ceiling panels on pallets and package them for pick-up. Perron notes that at Sun Life Plaza, the removal, stacking and palletizing of the old tiles is part of the demolition contractor's job scope.

"We included the work involved in removing and preparing the ceiling tiles for recycling in the contract," he says. "However, we supplied the pallets and also taught the demolition crews how to stack the tiles according to the Armstrong specifications. The crews quickly bought into it, and accepted the process very well."

Once there is a full trailer load, or 30,000 square feet of old ceilings, the owner or contractor simply needs to contact Armstrong, which will then arrange for a truck to pick up the material and transfer it to its nearest manufacturing facility. The ceiling panels from Sun Life Plaza were shipped to the Armstrong plant in St. Helens, Oregon.

Ceiling Recycling Less Costly Than Dumping

Perron notes that the process for recycling old ceilings proved to be nearly as fast as dumping them. "It does take a little longer because there is some additional handling involved, but not enough to have any adverse impact on the demolition or renovation schedule," he states. He also notes that the crews preferred to metal band the stacked panels rather than shrink wrap them. "This worked better for us, and helped make the entire process pretty much worry free."

When it comes to cost, Perron points out that recycling the ceilings turned out to be less costly than dumping them. "Compared to the total cost of handling, transport, container fees and landfill fees, we were actually able to save some money by recycling," he states. "However, that was a bonus, because the cost savings were not the driving force that drew us to the program...it was the environmental benefits."

Sun Life Plaza in Calgary is the first Sun Life Financial property to recycle old ceiling tiles. However, Perron feels it won't be the last. "I believe other Sun Life buildings around the country will soon follow," he states. "And," he adds, "as long as a renovation project is large enough, we'll continue to recycle ceiling tiles here in Calgary."



Pallets of old, discarded ceiling tiles at Sun Life Plaza await pick-up by Armstrong, which will use them in the manufacture of new acoustical ceilings.

Heidi H.H. Taylor

From: BPOTechline [BPOTechline@armstrong.com]
Sent: Thursday, April 26, 2007 5:24 PM
To: Heidi H.H. Taylor
Cc: Joseph T Teeter
Subject: Re: recycling in GA

Hi Heidi,

Thank you for your interest in our recycling program. Armstrong will pay freight for truckloads over 30,000 pounds in other areas of the country, so depending on the size of your project you may have some options. You can contact Jody Teeter, an Armstrong rep in your area, to discuss the options for recycling in Georgia. Jody can be reached at 1 877-ARMSTRONG [877 276-7876], Option 8, Ext. 8082.

Regards,

Barb Pfeiffer

BPO TechLine
Armstrong World Industries
Phone: 1-877-276-7876
Fax: 1-800-572-8324

"Heidi H.H. Taylor"
<heidi@expressiveenvironments.com>

To <bpotechline@armstrong.com>
cc
Subject recycling in GA

04/26/2007 03:15 PM

I am wondering who to specify for ceiling tile recycling in GA. It seems that only Chicago, the mid-Atlantic and Northeast states are the only states currently making a real effort in this area. Any information you provide will be helpful. Thanks.

Heidi H. H. Taylor, ASID

770-436-9823 office
770-436-9802 fax
404-668-3205 mobile

Explore our on-line portfolio and other helpful information at

www.expressiveenvironments.com

Expressive Environments LLC
P.O. Box 724866
Atlanta, GA 31139

4/26/2007



RECYCLED CONTENT FOR HERMAN MILLER PRODUCTS

Material Type	Weight (lb)	Post Industrial Recycled Content	Post Consumer Recycled Content	Total Recycled Content (PIR + PCR)	Recyclability
Aeron					
Aluminum Total	15.5 lb	19%	17%	36%	
Foam Total	0.9 lb	0%	0%	0%	
Plastic Total	13.2 lb	0%	12%	12%	
Steel Total	13.2 lb	3%	15%	18%	
	42.8 lb	22%	44%	66%	94%
Mirra					
Aluminum Total	6.2 lb	6%	6%	12%	
Foam Total	0.8 lb	0%	0%	0%	
Plastic Total	14.7 lb	0%	0%	0%	
Steel Total	28.3 lb	5%	25%	30%	
Textile Total	0.2 lb	0%	0%	0%	
	50.2 lb	11%	31%	42%	96%
Caper					
Aluminum Total	0.9 lb	4%	4%	8%	
Plastic Total	4.3 lb	0%	0%	0%	
Steel Total	5.6 lb	2%	11%	13%	
	10.8 lb	6%	15%	21%	100%
Equa 2					
Aluminum Total	10.1 lb	15%	14%	29%	
Fabric Total	0.3 lb	1%	0%	1%	
Foam Total	2.2 lb	0%	0%	0%	
Plastic Total	13.7 lb	0%	0%	0%	
Steel Total	9.4 lb	1%	5%	6%	
	35.8 lb	17%	19%	36%	93%
Ambi					
Aluminum Total	0.8 lb	1%	0%	2%	
Foam Total	3.1 lb	0%	0%	0%	
Plastic Total	12.5 lb	0%	0%	0%	
Steel Total	34.0 lb	2%	14%	16%	
Textile Total	0.6 lb	1%	0%	1%	
	51.0 lb	4%	14%	19%	84%
Reaction					
Aluminum Total	3.9 lb	5%	5%	10%	
Foam Total	4.2 lb	0%	0%	0%	
Plastic Total	17.8 lb	0%	0%	0%	
Steel Total	12.1 lb	1%	6%	7%	
Textile Total	1.0 lb	3%	0%	3%	
	39.1 lb	9%	11%	20%	75%

Material Type	Weight (lb)	Post Industrial Recycled Content	Post Consumer Recycled Content	Total Recycled Content (PIR + PCR)	Recyclability
Ergon					
Aluminum Total	6.8 lb	8%	7%	15%	
Foam Total	4.7 lb	0%	0%	0%	
Plastic Total	19.5 lb	0%	0%	0%	
Steel Total	14.4 lb	2%	8%	10%	
Textile Total	1.0 lb	2%	0%	2%	
	46.5 lb	12%	15%	27%	80%

Resolve System					
Plastic Total	41.7 lb	0%	0%	0%	
Steel Total	234.6 lb	3%	15%	18%	
Textile Total	5.3 lb	0%	0%	0%	
Wood Total	35.4 lb	9%	0%	9%	
	317.1 lb	12%	15%	27%	86%

Ethospace System					
High Pres. Laminate	13.2 lb	0%	0%	0%	
Misc. Total	10.8 lb	0%	0%	0%	
Plastic Total	37.2 lb	0%	0%	0%	
Steel Total	658.8 lb	3%	16%	19%	
Textile Total	19.6 lb	0%	2%	2%	
Wood Total	141.9 lb	14%	0%	14%	
	820.3 lb	17%	18%	35%	78%

Action Office					
Aluminum Total	11.4 lb	0%	0%	0%	
High Pres. Laminate	13.2 lb	0%	0%	0%	
Misc. Total	14.6 lb	0%	0%	0%	
Plastic Total	24.9 lb	0%	0%	0%	
Steel Total	99.2 lb	1%	4%	5%	
Textile Total	9.5 lb	0%	2%	2%	
Wood Total	368.2 lb	17%	0%	17%	
	541.1 lb	18%	6%	24%	25%

Passage System					
High Pres. Laminate	13.2 lb	0%	0%	0%	
Misc. Total	10.5 lb	0%	0%	0%	
Plastic Total	8.5 lb	0%	0%	0%	
Steel Total	416.0 lb	3%	14%	17%	
Textile Total	3.0 lb	0%	1%	1%	
Wood Total	158.5 lb	22%	0%	12%	
	609.7 lb	25%	15%	40%	70%

Herman Miller's environmental advocacy is long-standing and comprehensive. Since the 1950s, we have been, in the words of founder D.J. De Pree, "stewards of the environment." Today over 400 employees play a direct role in the work of 9 different environmental groups engaged in efforts from improving air quality and reducing waste to green energy, LEED certification, and design for the environment.



Environmental Product Summary
AERON® CHAIR

Design Story:
Shifting Paradigms with Pop Bottles

Herman Miller's Aeron chair rewrote the book on office seating with its distinctive look and high-performance design. In addition to its well-known ergonomic and functional qualities, Bill Stumpf and Don Chadwick designed the Aeron chair to be sparing of natural resources, durable and repairable, and constructed for ease of disassembly and recycling.

From its earliest developmental stages, the Aeron's raw material selection and sourcing process emphasized environmental friendliness, with a preference for renewable, sustainable, and recycled source materials, including recycled pop bottles.

Herman Miller's Design Protocol

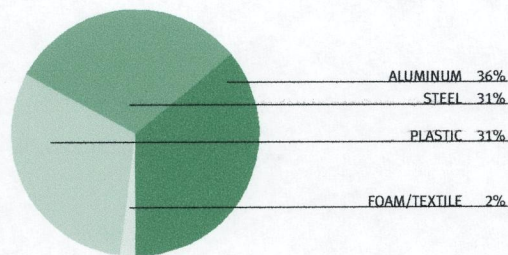
Our commitment to corporate sustainability naturally includes minimizing the environmental impact of each of our products. Our Design for the Environment team (DfE) applies environmentally sensitive design standards to both new and existing Herman Miller products, utilizing the McDonough-Braungart Cradle-to-Cradle Protocol.

Cradle-to-Cradle goes beyond regulatory compliance to thoroughly evaluate new product designs in three key areas:

- *Material Chemistry and Safety of Inputs*—What chemicals are in the materials we specify, and are they the safest available?
- *Disassembly*—Can we take products apart at the end of their useful life, to recycle their materials?
- *Recyclability*—Do the materials contain recycled content, and more importantly, can the materials be recycled at the end of the product's useful life?

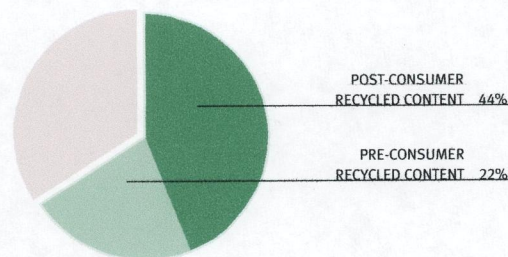
Material Content

The Aeron chair's components are constructed from aluminum, steel, plastic, and foam/textile.



The Aeron chair is up to **94 percent recyclable** at the end of its useful life.

Aeron is comprised of **66 percent recycled** materials. The recycled content breaks down to 44 percent post-consumer and 22 percent pre-consumer content.



AERON® CHAIR

- All die cast aluminum components are made from 100 percent recycled material.
- Aluminum components can be segregated and returned to the recycling stream as a technical nutrient.
- Steel components contain approximately 25 percent recycled content and are 100 percent recyclable as a technical nutrient.
- Most metal components have a powder-coat paint finish that emits negligible volatile organic compounds (VOCs).
- Plastic components are identified with an ASTM recycling code whenever possible, to aid in returning these materials to the recycling stream.
- The seat frame and back contain over 60 percent recycled content, made from approximately 50 recycled two-liter plastic beverage bottles per chair.
- Foam and textile materials are part of an open-loop system and can be recycled into everything from automotive components to carpet padding at the end of their current life.
- *Returnable/Recyclable Packaging*—Packaging materials include corrugated cardboard and a polyethylene plastic bag; each is part of a closed-loop recycling system, for repeated recycling.
 - Whenever possible, shipments between Herman Miller and its suppliers include the use of pallets and other returnable packaging to minimize waste.
 - On large North American orders, disposable packaging can be replaced with reusable shipping blankets.

Manufacturing Process

- *Green Energy and Emissions*—Herman Miller is committed to the use of 100 percent renewable energy by the year 2020. The company is similarly committed to achieving a goal of zero air and water emissions from manufacturing by 2020.
- *Waste*—All solid wastes are recycled to the greatest extent possible.
- *Worker Health and Safety*—Herman Miller strives to meet or exceed OSHA standards.
- *ISO*—Aeron is manufactured in West Michigan at an ISO 14001-certified site.

Product Performance

- Easy assembly for cost-efficiency and quick parts replacement.
- Easy disassembly for recyclability.
- Number One design and environmental criteria: Durability.
- Backed up by Herman Miller's 12-year, 24/7 warranty.

Indoor Air Quality

The Aeron chair is GREENGUARD™ certified as a low-emitting product that meets current indoor air quality standards. GREENGUARD-certified products also meet the emissions requirements of the State of Washington Furniture Systems criteria and the U.S. EPA Procurement Guidelines for Office Furniture.

Corporate Environmental Policy

For more information on Herman Miller's Corporate Environmental Policy and other environmental efforts, see our Environmental Advocacy booklet ([link](#)), or visit the "Environment" section of www.HermanMiller.com.

Supplier Support

At Herman Miller, we are committed to working closely with our suppliers to reduce our collective impact on the environment. We not only encourage our suppliers to minimize their operations' environmental impacts, but require they assist us in decreasing our facilities' negative environmental effects, as well.

LEED

The Aeron chair may contribute to LEED credits due to its returnable/reusable packaging, durability, pre-consumer and post-consumer recycled content, and GREENGUARD certification. Depending on project location, Aeron also may contribute to a LEED Regional Materials credit. Please contact your Herman Miller representative for detailed LEED credit sheets.

It's important to note that no interior furnishings, individually or collectively, can guarantee a specific number of points for LEED certification.

Herman Miller complies with the Federal Trade Commission's Part 260 Guides for the Use of Environmental Marketing Claims.

Herman Miller's environmental advocacy is long-standing and comprehensive. Since the 1950s, we have been, in the words of founder D.J. De Pree, "stewards of the environment." Today over 400 employees play a direct role in the work of 9 different environmental groups engaged in efforts from improving air quality and reducing waste to green energy, LEED certification, and design for the environment.



Environmental Product Summary
CAPER® CHAIR

Design Story:
A Hard-Working, Earth-Friendly Chair

To develop a solution for hard-working, multiuse spaces, Herman Miller built on its extensive work chair research base and applied it to secondary seating. The result is the Caper chair, designed by Jeff Weber, of Stumpf/Weber + Associates for ergonomic comfort, space efficiency, and multipurpose use.

In keeping with Herman Miller's commitment to environmental stewardship, Caper uses a high percentage of recycled content and is 100 percent recyclable. Its design requires minimal use of materials and components, which also minimizes production costs.

Caper—both the multipurpose stacker and the multitask chair—weighs an average 50 percent less than competitive products. This results in a significant reduction in raw materials and energy consumed in its manufacture, and a corresponding decrease in the amount of material to recycle at the end of the chair's life cycle.

Herman Miller's Design Protocol

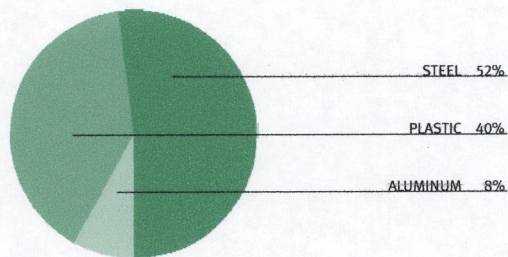
Our commitment to corporate sustainability naturally includes minimizing the environmental impact of each of our products. Our Design for the Environment team (DfE) applies environmentally sensitive design standards to both new and existing Herman Miller products, utilizing the McDonough-Braungart Cradle-to-Cradle Protocol.

Cradle-to-Cradle goes beyond regulatory compliance to thoroughly evaluate new product designs in three key areas:

- *Material Chemistry and Safety of Inputs*—What chemicals are in the materials we specify, and are they the safest available?
- *Disassembly*—Can we take products apart at the end of their useful life, to recycle their materials?
- *Recyclability*—Do the materials contain recycled content, and more importantly, can the materials be recycled at the end of the product's useful life?

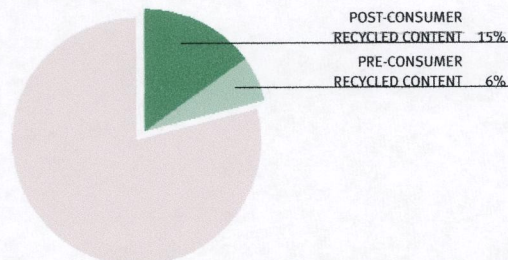
Material Content

The Caper chair's components are constructed from steel, plastic, and aluminum.



The Caper chair is up to **100 percent recyclable** at the end of its useful life.

Caper is comprised of **21 percent recycled** materials. This figure breaks down to 15 percent post-consumer and 6 percent pre-consumer recycled content.



- Steel components can be segregated and returned to the recycling stream as a technical nutrient.
- Most metal components are powder-coated, which eliminates solvents and volatile organic compounds (VOCs) from the finishing process.
- Plastic components are identified with an ASTM recycling code whenever possible, to aid in returning these materials to the recycling stream.
- All die-cast aluminum components are made from 100 percent recycled material.
- Aluminum can be recycled in a closed-loop system similar to steel.
- **Returnable/Recyclable Packaging**—Packaging materials include corrugated cardboard and a polyethylene plastic bag; each is part of a closed-loop recycling system, for repeated recycling.
 - Whenever possible, shipments between Herman Miller and its suppliers include the use of pallets and other returnable packaging to minimize waste.
 - On large North American orders, disposable packaging can be replaced with reusable shipping blankets.

Manufacturing Process

- **Green Energy and Emissions**—Herman Miller is committed to the use of 100 percent renewable energy by the year 2020. The company is similarly committed to achieving a goal of zero air and water emissions from manufacturing by 2020.
- **Waste**—All solid wastes are recycled to the greatest extent possible.
- **Worker Health and Safety**—Herman Miller strives to meet or exceed OSHA standards.
- **ISO**—Caper is manufactured in West Michigan at an ISO 14001-certified site.

Product Performance

- Easy assembly for cost-efficiency and quick parts replacement.
- Easy disassembly for recyclability.
- Number One design and environmental criteria: Durability.
- Backed up by Herman Miller's 12-year, 24/7 warranty.

Indoor Air Quality

The Caper chair is GREENGUARD™ certified as a low-emitting product that meets current indoor air quality standards. GREENGUARD-certified products also meet the emissions requirements of the State of Washington Furniture Systems criteria and the U.S. EPA Procurement Guidelines for Office Furniture.

Corporate Environmental Policy

For more information on Herman Miller's Corporate Environmental Policy and other environmental efforts, see our Environmental Advocacy booklet ([link](#)), or visit the "Environment" section of www.HermanMiller.com.

Supplier Support

At Herman Miller, we are committed to working closely with our suppliers to reduce our collective impact on the environment. We not only encourage our suppliers to minimize their operations' environmental impacts, but require they assist us in decreasing our facilities' negative environmental effects, as well.

LEED

The Caper chair may contribute to LEED credits due to its returnable/reusable packaging, durability, pre-consumer and post-consumer recycled content, and GREENGUARD certification. Depending on project location, Caper also may qualify to contribute to a LEED Regional Materials credit. Please contact your Herman Miller representative for detailed LEED credit sheets.

It's important to note that no interior furnishings, individually or collectively, can guarantee a specific number of points for LEED certification.

Herman Miller complies with the Federal Trade Commission's Part 260 Guides for the Use of Environmental Marketing Claims.

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Environmental Product Summary

ETHOSPACE® SYSTEM

Design Story: A Proven Frame-and-Tile System

Since its introduction in 1985, the Ethospace system's durability and flexibility have ensured it remains the leading frame-and-tile system. Ethospace continues to evolve, its new components fitting comfortably alongside existing ones to expand its life and usefulness.

The first system to make natural light a given in its design, Ethospace uses glass tiles, translucent materials and lower-height walls to allow more sunlight into an office environment while reducing the use of artificial lighting. Additionally, new configurations incorporating open returns and up-mounted storage reduce the amount of materials used in and on Ethospace's frame walls.

Herman Miller's Design Protocol

Our commitment to corporate sustainability naturally includes minimizing the environmental impact of each of our products. Our Design for the Environment team (DfE) applies environmentally sensitive design standards to both new and existing Herman Miller products, utilizing the McDonough-Braungart Cradle-to-Cradle Protocol.

Cradle-to-Cradle goes beyond regulatory compliance to thoroughly evaluate new product designs in three key areas:

- **Material Chemistry and Safety of Inputs**—What chemicals are in the materials we specify, and are they the safest available?
- **Disassembly**—Can we take products apart at the end of their useful life, to recycle their materials?
- **Recyclability**—Do the materials contain recycled content, and more importantly, can the materials be recycled at the end of the product's useful life?

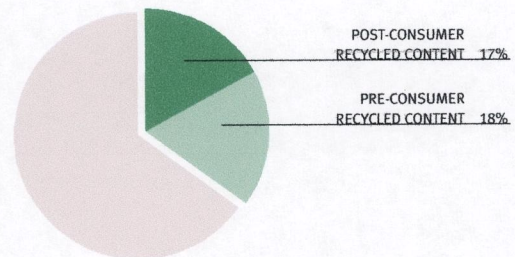
Material Content

Ethospace system components are constructed from steel, wood, plastic, textile, and other materials.



The Ethospace system is up to **78 percent recyclable** at the end of its useful life.

Ethospace is made of **35 percent recycled** materials. The recycled content breaks down to 17 percent post-consumer and 18 percent pre-consumer content.



- Steel components can be segregated and returned to the recycling stream as a technical nutrient.
- Wall frames are finished with autophoretic coating designed to last through many reconfigurations and free of volatile organic compounds (VOCs) or heavy metals.

ETHOSPACE® SYSTEM

- Tackboard substrates are derived from sustainably harvested wood products certified in accordance with the Sustainable Forestry Initiative®.
- Available Formcoat™ polyester-based powder coating finish encapsulates wood surfaces and seals wood substrate.
- Work surface substrates composed of more than 90 percent pre-consumer recycled wood content certified in accordance with Scientific Certification Systems.
- Available low-emission, rapidly renewable Wheat Board substrate.
- Also available with sustainably harvested, rapidly renewable bamboo work surface veneer.
- Textiles used in Herman Miller products can be made from natural or synthetic fibers. Several textiles are available with 100 percent recycled content.
- Also available with Kira fabric, a 100 percent bio-based, compostable fiber.
- Plastic components are identified with an ASTM recycling code whenever possible, to aid in returning these materials to the recycling stream.
- *Returnable/Recyclable Packaging*—Packaging materials include corrugated cardboard and a polyethylene plastic bag; each is part of a closed-loop recycling system, for repeated recycling.
 - Whenever possible, shipments between Herman Miller and its suppliers include the use of pallets and other returnable packaging to minimize waste.
 - On large North American orders, disposable packaging can be replaced with reusable shipping blankets.

Manufacturing Process

- *Green Energy and Emissions*—Herman Miller is committed to the use of 100 percent renewable energy by the year 2020. The company is similarly committed to achieving a goal of zero air and water emissions from manufacturing by 2020.
- *Waste*—All solid wastes are recycled to the greatest extent possible.
- *Worker Health and Safety*—Herman Miller strives to meet or exceed OSHA standards.
- *ISO*—Ethospace is manufactured in West Michigan at an ISO 14001-certified site.

Product Performance

- Easy assembly for cost-efficiency and quick parts replacement.
- Soiled or damaged panel tiles are easily replaced.
- Easy disassembly for recyclability.
- Number One design and environmental criteria: Durability.
- Backed up by Herman Miller's 12-year, 24/7 warranty.

Indoor Air Quality

The Ethospace system is GREENGUARD™ certified as a low-emitting product that meets current indoor air quality standards. GREENGUARD-certified products also meet the emissions requirements of the State of Washington Furniture Systems criteria and the U.S. EPA Procurement Guidelines for Office Furniture.

Corporate Environmental Policy

For more information on Herman Miller's Corporate Environmental Policy and other environmental efforts, see our Environmental Advocacy booklet (link), or visit the "Environment" section of www.HermanMiller.com.

Supplier Support

At Herman Miller, we are committed to working closely with our suppliers to reduce our collective impact on the environment. We not only encourage our suppliers to minimize their operations' environmental impacts, but require they assist us in decreasing our facilities' negative environmental effects, as well.

LEED

Ethospace may contribute to LEED credits due to its durability, pre-consumer and post-consumer recycled content, and GREENGUARD certification. Depending on project location, Ethospace also may qualify to contribute to a LEED Regional Materials credit. Please contact your Herman Miller representative for detailed LEED credit sheets.

It's important to note that no interior furnishings, individually or collectively, can guarantee a specific number of points for LEED certification.

Herman Miller complies with the Federal Trade Commission's Part 260 Guides for the Use of Environmental Marketing Claims.

Herman Miller's environmental advocacy is long-standing and comprehensive. Since the 1950s, we have been, in the words of founder D.J. De Pree, "stewards of the environment." Today over 400 employees play a direct role in the work of 9 different environmental groups engaged in efforts from improving air quality and reducing waste to green energy, LEED certification, and design for the environment.



Environmental Product Summary

MY STUDIO ENVIRONMENTS™

Design Story: Small Footprint, Big Idea

Herman Miller asked award-winning Canadian designer Douglas Ball to develop a new system to address today's business office real estate constraints while maximizing the effectiveness of the 6'-by-8' workstation. Ball has responded with My Studio Environments, which successfully combines the complex and contradictory features of the private office and the open cubicle.

As an individual who confesses a love of small spaces including sailboat cabins and Volkswagen bus interiors, Ball set the goal of optimizing the individual work area to make it feel larger than it really is. The result is a system that's efficient, functional, and human-centered.

My Studio is the designed and developed according to the Cradle- to-Cradle protocols created by McDonough-Braungart Design Chemistry. It's also GREENGUARD™ certified. And thanks to the resourceful use of durable raw materials, My Studio assures years of cost-effective service followed by easy recycling at the end of its useful life.

Herman Miller's Design Protocol

Our commitment to corporate sustainability naturally includes minimizing the environmental impact of each of our products. Our Design for Environment team (DFE) applies environmentally sensitive design standards to both new and existing Herman Miller products, utilizing the McDonough-Braungart Cradle-to-Cradle Protocol.

Cradle-to-Cradle goes beyond regulatory compliance to thoroughly evaluate new product designs in three key areas:

- **Material Chemistry and Safety of Inputs**— What chemicals are in the materials we specify, and are they the safest available?

- **Disassembly**—Can we take products apart at the end of their useful life, to recycle their materials?
- **Recyclability**—Do the materials contain recycled content, and more importantly, can the materials be recycled at the end of the product's useful life?

Material Content

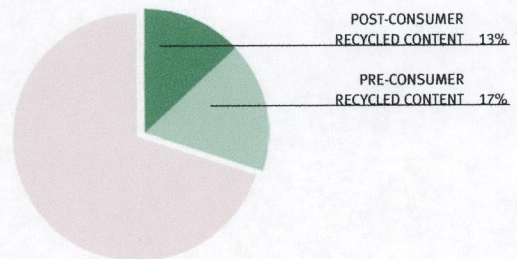
My Studio's components are constructed principally from steel, wood, aluminum, glass, plastic, and laminate.

My Studio is up to **69 percent recyclable** at



the end of its useful life.

My Studio is comprised of **30 percent recycled** materials. This figure breaks down to 13 percent post-consumer and 17 percent pre-consumer recycled content.



MY STUDIO ENVIRONMENTS™

- Steel components can be segregated and returned to the recycling stream as a technical nutrient.
- Most metal components are powder-coated, which eliminates solvents and volatile organic compounds (VOCs) from the finishing process.
- Work surface substrates are composed of more than 90 percent pre-consumer recycled wood content certified in accordance with Scientific Certification Systems.
- Also available with sustainably harvested, rapidly renewable bamboo work surface veneer.
- Available low-emission, rapidly renewable Wheat Board substrate.
- Plastic components are identified with an ASTM recycling code whenever possible, to aid in returning these materials to the recycling stream.
- *Returnable Packaging*—My Studio's packaging materials include corrugated cardboard and a polyethylene plastic bag to protect it from soiling or dust. Each of these materials is part of a closed-loop recycling system, meaning they can be recycled repeatedly.
 - Whenever possible, shipments between Herman Miller and its suppliers include the use of pallets and other returnable packaging to minimize waste.

Manufacturing Process

- *Green Energy and Emissions*—Herman Miller is committed to the use of 100 percent renewable energy by the year 2020. The company is similarly committed to achieving a goal of zero air and water emissions from manufacturing by 2020.
- *Waste*—All solid wastes are recycled to the greatest extent possible.
- *Worker Health and Safety*—Herman Miller strives to meet or exceed OSHA standards.
- *ISO*—My Studio Environments is manufactured in West Michigan at an ISO 14001-certified site.

Product Performance

- Easy assembly for cost-efficiency and quick parts replacement.
- Easy disassembly for recyclability.
- Number One design and environmental criteria: Durability.
- Backed up by Herman Miller's 12-year, 24/7 warranty.

Indoor Air Quality

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