Planetary View

Elite Seating Life Cycle

Environmental Standards & Credit Applicability

Materials & Recycled Content

Updated: November 1, 2018
Planet Keilhauer Overview

As part of our commitment to transparency and disclosure, Keilhauer is proud to present our Product Environmental Criteria documents. These documents will provide information on our corporate sustainability goals as well as specific environmental information about our products. For information not found in this document please visit our website or contact your local sales representative.

We believe that good business and long term success is measured by the Triple Bottom Line, meaning we harmoniously look after our people, our environment and our economic success. We introduced a comprehensive sustainability program called Planet Keilhauer so that sustainability would be prioritized throughout our company.

Planet Keilhauer is driven by its Corporate Goal of closed loop manufacturing. We are guided by our sustainability policy, occupied by our sustainability programs, and supported by our people.

We'll know we have a closed loop system when:
- We can disassemble, reuse, recycle, or biodegrade our products.
- We use 100% recycled content or rapidly renewable materials.
- We are powered by 100% renewable energy.
- We use materials with 0 impact on humans and the environment.
- We create 0 waste in our facilities.
- We use 0 water in our processes.

Keilhauer Environmental Certifications

Keilhauer is proud to have many of our products certified under the following certifications (see Life Cycle Section for product applicability):

**BIFMA LEVEL®**
Keilhauer products have been certified by SCS Global Services for LEVEL®, BIFMA’s sustainability certification program for furniture.

**Indoor Air Quality**
Many Keilhauer products have been certified by SCS Global Services for Indoor Air Quality achieving Indoor Advantage™ Gold. This means they meet rigorous and comprehensive air quality standards.

**Forest Stewardship Council®**
We believe in responsible forestry and ethically sourced materials. In August 2014, we launched our first line of tables as FSC Certified. We are currently expanding this program to include other product lines.

**Cradle to Cradle Certified™**
Cradle to Cradle is a multi-attribute certification assessing products against stringent human and environmental health criteria. Keilhauer’s Simple Chair 9323 is Cradle to Cradle Certified™ at the Silver level.
Elite Seating Life Cycle

1. Design for Environment

Keilhauer’s interdisciplinary Design for Environment Program (DfE) ensures that we design our products in line with our sustainability goals. This includes holistic life cycle thinking, material specification and sourcing so that we create exceptionally well designed and safe products with long, useful lives that are repairable and recyclable. Members of the DfE team include managers from Manufacturing, Engineering, Operations, Sustainability, and even our President!

2. Elite Seating Certification

Elite seating is certified under the following industry standard certifications:

- BIFMA LEVEL 2
  Registration # SCS-SCF-02767

- Indoor Advantage™ Gold
  Registration # SCS-IAQ-03451

3. Environmental Standards

Keilhauer products may assist in achieving credits under the following industry standards and certifications:

**WELL Building Standard**
Keilhauer products may be applied to the three WELL project typologies:
- New and Existing Buildings
- New and Existing Interiors
- Core and Shell
For more credit specific details, see WELL Building Standard Credit Applicability on page 5.

**LEED v4**
Keilhauer products may assist with the following LEED Projects. For more credit specific details, see LEED v4 Credit Applicability on pages 5 and 6 or visit http://keilhauer.ecoscorecard.com.

**Healthier Hospitals for Safer Chemicals Challenge - V2.0**
Keilhauer products may comply with this standard. Please contact your local sales representative for more information.

4. Supply Chain

We have always believed that who you do business with is fundamental to how you do business. We work with vendors that conduct business honestly and ethically, giving priority to local vendors. We also work with vendors to include recycled materials and to source raw materials from sustainable sources.
5. Materials & Recycled Content

Our products are made from a variety of materials, some of which are made using recycled content. See below for percentages from our best seller. For other models please reference the chart at the end of the document.

Note: Recycled content is determined by weight. Products may contain both pre-consumer and post-consumer recycled content materials. Post-industrial (pre-consumer) recycled content is material diverted from the waste stream during manufacturing. Post-consumer recycled content is material generated by end users such as households, commercial, or consumers of the final product.

**Best seller: Elite 597-5 Conference Chair, Medium Back, Upholstered Open Arm**

<table>
<thead>
<tr>
<th>Material Content:</th>
<th>Recycled Content:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.82% Wood</td>
<td>70.65% Virgin</td>
</tr>
<tr>
<td>0.61% Plastic</td>
<td>25.24% Post-Industrial</td>
</tr>
<tr>
<td>30.42% Foam</td>
<td>4.11% Post-Consumer</td>
</tr>
<tr>
<td>37.10% Steel</td>
<td></td>
</tr>
<tr>
<td>7.28% Aluminum</td>
<td></td>
</tr>
<tr>
<td>21.77% Combination</td>
<td></td>
</tr>
</tbody>
</table>

6. Manufacturing Plant

To target efficiency, we measure our resource use and perform regular audits. Using the data generated, we can evaluate our processes such as energy and water use and shift our capital investments to align with our sustainability goals.

7. Final Manufacturing Location

Keilhauer products are manufactured in Toronto, Ontario, Canada.

8. Blanket Wrapping

When shipping seating, Keilhauer’s standard is to cover products in a recyclable plastic bag (made using recycled content), and then wrap in a reusable blanket. The blanket is taken back by the shipper at delivery. Alternatively, products can be shipped in recyclable cardboard boxes. Depending on the model, some tables are packed in wooden crates.

9. End of Product Life

For information on repairability and recyclability see ‘End of Product Life Document: Task, Conference, Executive’ located on our website: www.keilhauer.com.
Environmental Standards & Credit Applicability

Keilhauer products may assist with the following features and credits:

WELL Building Standard Credit Applicability

<table>
<thead>
<tr>
<th>Air Concept</th>
</tr>
</thead>
</table>
| **FEATURE: 04 VOC Reduction (5: Furniture and Furnishings)**

Elite seating is certified by SCS Global Services for Indoor Air Quality at the Indoor Advantage™ Gold level and conforms to the requirements set out in the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2016) and ANSI/BIFMA e.3-2014e (Credits 7.6.1, 7.6.2, 7.6.3) for seating parameters. Also conforms to the CDPH/EHLB Standard Method (CA 01350) v1.2-2017 for seating. See registration number located in the Life Cycle section on page 3 of this document. The certificate can be found on Keilhauer’s website under the environment section.

LEED v4 Credit Applicability (LEED 2009 Credits)

<table>
<thead>
<tr>
<th>LEED BD+C Building Design + Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Materials and Resources (MR) Credits:</strong></td>
</tr>
</tbody>
</table>
| **PREREQ:** Construction and Demolition Waste Management Planning (LEED 2009: MRc2)**

When shipping, Keilhauer covers seating in a recyclable plastic bag (made using recycled content) which is then wrapped with a protective reusable blanket. The blanket is taken back by the shipper at delivery. Alternatively, products can be shipped in recyclable cardboard boxes. See page 4 for End of Product Life details.

| CREDIT: Building Product Disclosure and Optimization - Sourcing of Raw Materials (LEED 2009: MRc6, MRc7)

(Option 2. Leadership Extraction Practices)

**Materials Reuse:** Keilhauer products are designed for durability and offer a long useful life with a ten year warranty. Some products may be refurbished and reused to contribute to this point on future projects.

**Recycled Content:** The majority of Keilhauer products contain some recycled content and may assist in contributing to this credit. Reference the chart on page 7 for model specific recycled content percentages.

| CREDIT: Furniture and Medical Furnishings (LEED 2009: MRc5)

(Option 3. Multi-Attribute Assessment of Products)

**Materials Reuse:** Keilhauer products are designed for durability and offer a long useful life with a ten year warranty. Some products may be refurbished and reused to contribute to this point on future projects.

**Recycled Content:** The majority of Keilhauer products contain some recycled content and may assist in contributing to this credit. Reference the chart on page 7 for model specific recycled content percentages.

<table>
<thead>
<tr>
<th>Indoor Environment Quality (EQ) Credits:</th>
</tr>
</thead>
</table>
| **CREDIT: Low Emitting Materials (LEED 2009: IEQc4.1, IEQc4.2, IEQc4.3, IEQc4.4, IEQc4.5)**

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LEED ID+C Interior Design + Construction

Materials and Resources (MR) Credits:

PREREQ: Construction and Demolition Waste Management Planning (LEED 2009: MRc2)
When shipping, Keilhauer covers seating in a recyclable plastic bag (made using recycled content) which is then wrapped with a protective reusable blanket. The blanket is taken back by the shipper at delivery. Alternatively, products can be shipped in recyclable cardboard boxes. See page 4 for End of Product Life details.

Keilhauer products are designed for durability and offer a long useful life with a ten year warranty. Some products may be refurbished and reused to contribute to this point on future projects.

Materials Reuse: Keilhauer products are designed for durability and offer a long useful life with a ten year warranty. Some products may be refurbished and reused to contribute to this point on future projects.
Recycled Content: The majority of Keilhauer products contain some recycled content and may assist in contributing to this credit. Reference the chart on page 7 for model specific recycled content percentages.

LEED BO+M Building Operations + Maintenance

Materials and Resources (MR) Credits:

Low Emissions of VOC: Elite seating is certified by SCS Global Services for Indoor Air Quality at the Indoor Advantage™ Gold level and conforms to the requirements set out in the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2016) and ANSI/BIFMA e.3-2014e (Credits 7.6.1, 7.6.2, 7.6.3) for seating parameters. Also conforms to the CDPH/EHLB Standard Method (CA 01350) v1.2-2017 for seating. See registration number located in the Life Cycle section on page 3 of this document. The certificate can be found on Keilhauer’s website under the environment section.
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LEED Pilot Credit (PC)

BD+C: Building Design + Construction, ID+C: Interior Design + Construction

PC 112: Certified Multi-Attribute Products and Materials
Keilhauer products are certified by SCS Global Services for BIFMA LEVEL 2 certification. The registration number is located in the Life Cycle section of this document. The certificate can be found on Keilhauer’s website under the environment section.

PC 91: Social Equity Within the Supply Chain
Keilhauer suppliers are mandated to adhere to a Code of Conduct which addresses criteria including child and forced labor, health and safety, discrimination and human rights, discipline and harassment, fair working hours, and corruption.

PC 44: Ergonomics Approach for Computer Users
Keilhauer products are engineered to the highest ergonomic standards. In addition, many Keilhauer products meet ergonomic guidelines outlined in BIFMA G1-2013. Please refer to Keilhauer’s website for more details.
# Materials & Recycled Content

<table>
<thead>
<tr>
<th>Product</th>
<th>Recycled Content</th>
<th>Material Content</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>POST CONSUMER</td>
<td>POST INDUSTRIAL</td>
</tr>
<tr>
<td>ELITE 510-5 LOW BACK CHAIR</td>
<td>3.7%</td>
<td>27.88%</td>
</tr>
<tr>
<td>ELITE 511-5 HIGH BACK CHAIR</td>
<td>4.06%</td>
<td>25.49%</td>
</tr>
<tr>
<td>ELITE 517-5 MID BACK CHAIR</td>
<td>3.97%</td>
<td>26.24%</td>
</tr>
<tr>
<td>ELITE 580-5 LOW BACK CHAIR WITH CLOSED ARM</td>
<td>3.55%</td>
<td>26.42%</td>
</tr>
<tr>
<td>ELITE 581-5 HIGH BACK CHAIR WITH CLOSED ARM</td>
<td>3.85%</td>
<td>24.31%</td>
</tr>
<tr>
<td>ELITE 587-5 MID BACK CHAIR WITH CLOSED ARM</td>
<td>3.75%</td>
<td>24.98%</td>
</tr>
<tr>
<td>ELITE 590-5 LOW BACK CHAIR WITH OPEN ARM</td>
<td>3.94%</td>
<td>26.68%</td>
</tr>
<tr>
<td>ELITE 591-5 HIGH BACK CHAIR WITH OPEN ARM</td>
<td>4.19%</td>
<td>24.57%</td>
</tr>
<tr>
<td>ELITE 597-5 MID BACK CHAIR OPEN ARM</td>
<td>4.11%</td>
<td>25.24%</td>
</tr>
</tbody>
</table>

**Document Disclaimer:**
This document will be reviewed and updated periodically and is subject to change without notice. Keilhauer is not responsible for slight deviations in the data and information contained in this document.

Recycled content data is calculated using data from suppliers, manufacturers and industry averages. Keilhauer makes conservative assumptions to ensure disclosure of the most accurate recycled content as possible. Variability of manufacturing processes may result in higher or lower content. Textiles and associated weights are not accounted for in the analysis. Recycled content and material content data is calculated using base models only.

Cradle to Cradle Certified is a certification mark licensed exclusively for the Cradle to Cradle Products Innovation Institute.