Many LEED-focused architects are aware that the recycled content found in Kawneer’s aluminum products can help earn valuable points in the LEED rating system. What many may not be aware of, however, is that Kawneer has a number of products and systems that can help you gain valuable LEED certification points. In fact, many more points – across several categories – can be earned utilizing the range of products that Kawneer offers.

Materials & Resources
Kawneer utilizes various aluminum billets for our extrusions. Prime billet smelted from alumina is provided directly from Alcoa. This is the foundation for our extrusions to ensure a top-quality consistent finish and the quality shapes required for architectural grade products and systems. Upon request, we offer LEED billet with an average of 55%1 pre-consumer recycled aluminum.

For LEED projects, be sure your specifications indicate the recycled content requirement for extruded aluminum materials. This way, special measures can be taken to review the desired recycled content and a determination can be made on supplying the recycled content for your specific project.

Energy & Atmosphere
Points under the Energy & Atmosphere category can be leveraged by using Kawneer’s thermally-broken windows, swing and sliding entrances, storefronts, sun shades, curtain walls and window wall systems to optimize energy performance. The Photovoltaic (PV) panels in Kawneer’s 1600 PowerShade®, 1600 PowerWall® and 1600 PowerSlope® can help earn points for on-site renewable energy.

Indoor Environmental Quality
While all of Kawneer’s vertical glass and glazing products can be utilized to provide views, other products such as InLighten® Light Shelf, 1600 Sloped Glazing and 2000 Skylight increase natural daylight to occupied areas of the building. Kawneer’s wide range of operable windows and concealed ventilators can provide increased natural ventilation and controllability of systems, all supporting points toward the Indoor Environmental Quality category.

Innovation & Design Process
Kawneer’s solvent-free powder coat paints and paperless architectural support and service systems are just two of the ways points may be earned under the Innovation & Design Process category.

This tool was developed using the U.S. Green Building Council’s (USGBC) LEED for New Construction (NC) Version 2.2. The Canada Green Building Council’s (CaGBC) LEED standards may vary. Designed to be used as a working instrument, this planning tool will guide you to the specific Kawneer products and solutions that can help you reach your LEED certification goals.

1. Note: Recycled content variation exists in billet purchases from suppliers. The above figure is an average based on overall billet purchasing practices.

2. Note: This tool is offered as a guide. For complete details on LEED-NC Version 2.2 requirements, please refer to the LEED for New Construction Reference Guide v2.2.

3. Note: To learn more about the CaGBC LEED standards, please visit Cagbc.org.
MAXIMIZING LEED CREDITS WITH KAWNEER’S SUSTAINABLE SOLUTIONS.

The future is now. No longer is sustainable design a lofty goal or an aspiration reserved for the ambitious few.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings using a comprehensive, point-based system. Kawneer is dedicated to creating products and systems that help comply with LEED standards and promoting integrated, whole-building design practices.

What was once an ambitious goal has now become an absolute priority. This guide outlines the many ways that Kawneer products and solutions can contribute to LEED certification. Start building a better tomorrow, today.
1 Optimize Energy Performance
Achieve increasing levels of energy performance above the prerequisite standard to reduce environmental impact associated with excessive energy use.

ENERGY & ATMOSPHERE Potential Points Earned Points LEED Requirements (referenced from NC v2.2) Kawneer Products + Services

1-10
Demonstrate a percentage improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA Standard 90.1-2004 by a whole building project simulation using the Building Performance Rating Method in Appendix G of the Standard.

1600 SunShade®
1600 PowerShade®
High-performance Thermal Products
InLighten® Light Shelf

2 On-site Renewable Energy
Encourage and recognize increasing levels of self-supply through renewable technologies to reduce environmental impact associated with fossil fuel energy use.

Use on-site renewable energy systems to offset building energy cost. Calculate project performance by expressing the energy produced by renewable systems as a percentage of the building annual energy cost and using the table below to determine the number of points possible.

<table>
<thead>
<tr>
<th>Renewable Energy</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5% renewable energy</td>
<td>1 point</td>
</tr>
<tr>
<td>7.5% renewable energy</td>
<td>2 points</td>
</tr>
<tr>
<td>12.5% renewable energy</td>
<td>3 points</td>
</tr>
</tbody>
</table>

1600 PowerShade®
1600 PowerWall®
1600 PowerSlope®

Kawneer Products + Services

Designed to shade interiors and optimize energy performance by reducing solar heat gain, 1600 SunShade® works with Kawneer products to allow greater use of glazing while reducing demand on the HVAC. These properties can help qualify for LEED points in the Energy & Atmosphere category.

High-performance thermal systems are designed to provide optimum thermal performance leading to greater energy conservation. Kawneer systems offer infills from 1" IG (Insulating Glass) to 2" maximum performance triple-glazed units. Thermally-broken products such as 7500 Wall®, 5500 and AA™900 ISOWEB® Windows, AA™3900 ISOWEB® Sliding Door, and 1600 Wall System®3 and 4 maximize thermal performance by reducing thermal transmittance. These systems can help qualify for LEED points in the Energy & Atmosphere category.
Credits may be obtained for renewable energy in the Energy & Atmosphere category for LEED certification. Photovoltaic (PV) cells in the 1600 PowerShade® convert light energy from the sun into electricity, which can be fed into the building’s system. On-site renewable energy reduces the environmental impact associated with the use of fossil fuels. 1600 PowerWall® is the first proven curtain wall system to produce electricity by capturing the energy of the sun. 1600 PowerSlope® combines sloped glazing with PV cells to convert light energy from the sun into electricity. Credits may be obtained for renewable energy in the Energy & Atmosphere category for LEED certification by utilizing these systems.

1600 POWERWALL®

1600 POWERSLOPE®

THERMALLY-BROKEN, ARCHITECTURAL GRADE OPERABLE WINDOWS AND 512 VENTROW ISOLOCK® VENTILATOR

To maintain aesthetic appeal without sacrificing thermal performance, Kawneer offers a wide range of thermally-broken, architectural grade windows that can help leverage points in the Energy & Atmosphere category. Kawneer’s operable windows can earn potential points in the Indoor Environmental Quality category by providing controllable natural ventilation. The thermally-broken 512 Ventrow, a modular insert ventilator, adds natural, concealed air circulation in fixed frames.

<table>
<thead>
<tr>
<th>MATERIALS &amp; RESOURCES</th>
<th>Potential Points</th>
<th>Earned Points</th>
<th>LEED Requirements (referenced from NC v2.2)</th>
<th>Kawneer Products + Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Recycled Content: 10% Increase demand for building products that incorporate recycled content materials, therefore reducing the impact resulting from extraction and processing of virgin materials.</td>
<td>1</td>
<td></td>
<td>Use materials with recycled content, such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project.</td>
<td>Use of Recycled Aluminum</td>
</tr>
<tr>
<td>4.2 Recycled Content: 20% Increase demand for building products that incorporate recycled content materials, therefore reducing the impact resulting from extraction and processing of virgin materials.</td>
<td>(4.1) + 1</td>
<td></td>
<td>Use materials with recycled content, such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 20% (based on cost) of the total value of the materials in the project.</td>
<td>Use of Recycled Aluminum</td>
</tr>
<tr>
<td>5.1 Regional Materials: 10% Extracted, Processed and Manufactured Regionally Increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impact resulting from transportation.</td>
<td>1</td>
<td></td>
<td>Use building materials or products that have been extracted, harvested or recovered, as well as manufactured within 500 miles of the project site for a minimum of 10% (based on cost) of the total materials value. If only a fraction of a product or material is extracted / harvested / recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.</td>
<td>Nationwide Customer Network Use of Recycled Aluminum</td>
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<td>Nationwide Customer Network Use of Recycled Aluminum</td>
</tr>
</tbody>
</table>
InIncreased Ventilation
Provide additional outdoor air ventilation to improve indoor air quality for improved occupant comfort, well-being and productivity.

6.2 Controllability of Systems: Thermal Comfort
Provide a high level of thermal comfort system control by individual occupants or specific groups in multi-occupant spaces to promote the productivity, comfort and well-being of building occupants.

8.1 Daylight and Views (Daylight 75% of Spaces)
Provide for the building occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.

8.2 Daylight and Views (Views 90% of Spaces)
Provide for the building occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.
1-1.4 Innovation in Design: Provide Specific Title
To provide design teams and projects the opportunity to be awarded points for exceptional performance above the requirements set by the LEED for New Construction Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED for New Construction Green Building Rating System.

Potential Points | Earned Points | LEED Requirements (referenced from NC v2.2) | Kawneer Products + Services
--- | --- | --- | ---
1-4 | | In writing, identify the intent of the proposed innovation credit, the proposed requirement for compliance, the proposed submittals to demonstrate compliance and the design approach (strategies) that might be used to meet the requirements. | Solvent-Free Powder Coat Finishes
       | | | Architectural Services Team (AST)

Kawneer offers a wide palette of powder coat paints in attractive colors that are free from the harmful environmental effects of VOCs associated with liquid paints. These powder coat paints are available to finish all Kawneer products. Points for Innovation & Design could be achieved by applying for credit and providing substantiation that the powder coat finish is a low-emitting material that results in improved air quality and has no negative environmental impact.

If you are looking for product applications or need technical assistance with your LEED project, contact Kawneer’s Architectural Services Team (AST) at our toll-free numbers: (tel) 1.877.767.9107 or (fax) 1.877.767.9102.