

TECH TALK

Product: Alucobond®
Alucobond® Plus

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Alucobond® & Alucobond® Plus



Contribution to Leadership in Energy and Environmental Design (LEED)

The LEED program, sponsored by the United States Green Building Council (UGBC), is the primary environmentally focused building certification in the United States. The goal of the program is to provide a standard for high-performance environmentally sustainable buildings.

The basic structure of the LEED program is to issue points within various aspects of a building's design and construction. The building may qualify for various levels of LEED certification based on the total number of points achieved.

There are six Credit categories within the LEED rating system and each Credit is divided into sub-credits. **ACM panel systems utilizing Alucobond® and Alucobond® Plus may contribute toward LEED certification under the following Credit categories:**

Materials and Resources

- MR Credit 4 – Recycled Content
- MR Credit 5 – Regional Materials

Innovation and Design Process

- ID Credit 1 – Innovation in Design

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Materials and Resources: MR Credit 4: Recycled Content:

The intent of this credit is to increase the demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

This credit requires the use of 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.

The recycled content value of a material assembly is determined by weight. The recycled fraction of the assembly is then multiplied by the cost of the assembly to determine the recycled content value.

Contribution of Alucobond® Materials toward MR Credit 4: Recycled Content:

The contribution of Alucobond® and Alucobond® Plus toward the recycled content of a finished ACM panel assembly is outlined in the following table:

| Material | Thickness (mm) | Weight (lb/ft ²) | Recycled % Post-Consumer | Recycled % Pre-Consumer | LEED Contribution (1.0 x Post + 0.5 x Pre) |
|-----------------|----------------|------------------------------|--------------------------|-------------------------|--------------------------------------------|
| Alucobond® | 3 | 0.92 | 37% | 15% | 45% |
| Alucobond® | 4 | 1.12 | 30% | 13% | 37% |
| Alucobond® | 6 | 1.49 | 23% | 9% | 28% |
| Alucobond® Plus | 4 | 1.58 | 21% | 9% | 26% |

Recycled content is defined in accordance with the International Organization of Standards document ISO 14021—Environmental labels and declarations—Self-declared environmental claims (Type II environmental labeling).

Post-consumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose.

Pre-consumer material is defined as material diverted from the waste stream during the 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.

Materials and Resources: MR Credit 5: Regional Materials:

The intent of this credit is to increase the 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 impacts resulting from transportation.

This credit requires the use of 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 or recovered as well as manufactured locally, then only that percentage (by weight) shall contribute to the regional value.

Contribution of Alucobond® Materials toward MR Credit 5: Regional Materials:

The raw material for the aluminum skins of Alucobond® materials is not extracted in North America and does not qualify as a regional material. Since we purchase aluminum coil stock from different suppliers we cannot determine a specific location for the recovery point of the recycled aluminum content. We also cannot specifically determine where the natural gas used to make the polyethylene core material is extracted.

Therefore, Alucobond® materials cannot contribute points toward LEED certification based on regional materials. **However, other portions of the final Alucobond® Panel Assembly may be able to contribute towards the Regional Materials credit.**

Innovation in Design: ID Credit 1:

The intent of this credit is to provide design teams and projects the opportunity to achieve exceptional performance above the requirements set by the LEED Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Green building Rating System. Points awarded for the Innovation in Design Credit depend on the creativity of the Architect and acceptance of the idea from the LEED organization.

Summary

The LEED program has gained much recognition over the past several years and is now the premier sustainability design tool in the building industry. LEED focuses on constructing buildings that have minimal impact on the environment during construction, occupation and reclamation. LEED recognizes that utilizing recycled materials is an important part of minimizing environmental impact. This recognition is the driving force for using Alucobond® or Alucobond® Plus material. The relatively high percentage of recycled aluminum ensures that Alucobond® or Alucobond® Plus can provide a significant contribution to earning LEED points.

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