

TECHNICAL BULLETIN  
**LEED Certification**

The LEED (Leadership in Energy and Environmental Design) Green Building Rating System<sup>®</sup> is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. While construction components and materials cannot be LEED certified (only the finished building or project can), measures can be taken by designers and product specifiers to include materials that will contribute to achieving the overall points necessary for the building or project to be LEED Certified.

Virginia Glass Products Corporation and Virginia Mirror Company, Inc. pride ourselves on our manufacturing and purchasing improvements and policy decisions that translate into providing building materials that enhance a project's "green" status and improved LEED ratings.

When calculating the various recycled and recyclable material contents for a project it is important to remember that the required "percentages" should be based upon the final assembly of a building product. This calculation can only be made by the firm performing the final installation, taking into account all the materials that went into the final installation. Our glass and other products are most likely only a component of this. The following information will be useful in making this final calculation:

**Pre-Consumer/Post-Industrial Recycled Content:**

This is defined as material that is diverted from the waste stream during the manufacturing process. Excluded in this calculation is reutilization of materials such as reworks, regrinds or scrap generated in a manufacturing process and capable of being reclaimed and combined with virgin materials for use in further production of the same product.

**Glass – 0%**

The glass fabrication and tempering process for the finished product generates scrap and offal that is equivalent to approximately 15% of total glass used, and this material is diverted from the waste stream to recycling facilities, but is not used in the manufacture of the finished product and therefore does not contribute to the recycled content. Virginia Glass Products and Virginia Mirror purchase raw glass from manufacturers whose batch materials consist of approximately 20% recycled glass cullet. Because scrap glass or cullet is a required ingredient in the batch material for glass production, however, and because this is a standard manufacturing process, this recycled material does not contribute to the pre-consumer/post-industrial material content as defined by the Federal Trade Commission document, Guides for Use of Environmental Marketing Claims, 16 CFR 260.7 (e), available at [www.ftc.gov/bcp/grnrule/guides980427.htm](http://www.ftc.gov/bcp/grnrule/guides980427.htm).

**Aluminum Extrusions/castings (Entrances) – 40%**

Approximate pre-consumer/post-industrial recycled content, by weight, of purchased aluminum extrusions and castings is 40%.

**Post-Consumer Recycled Content:**

This 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. The post consumer recycled content of a product is how much of a particular product is composed of a material that has been discarded or no longer of use after being used for its intended purpose.

**Glass – 2%**

Approximate post-consumer recycled content, by weight, of purchased raw glass is 2%.

**Aluminum Extrusions (Entrances) – 30%**

Approximate post-consumer recycled content, by weight, of purchased aluminum extrusions and castings is 30%.

**Regional Materials:**

The regional requirement is based upon the distance between the jobsite and the point of final assembly of components that make up a building product that is then furnished to, and installed by the tradesmen. Therefore, it does not matter where we purchase our raw materials. Since we assemble and/or turn the raw materials into a final product (*e.g.* doors, IG, fabricated tempered glass, etc.) the regional requirement would be fulfilled if the jobsite is located within 500 miles of Virginia Glass Products Corporation's plant in Ridgeway, Virginia.

**Environmentally Responsible:**

***Environmentally Responsible -***

Virginia Glass Products and Virginia Mirror Company divert approximately 95% of our scrap and unused glass, aluminum, and glass products to recycling facilities for use in the manufacture of other materials and products.

***Recyclable -***

Approximate content, by weight, of the finished product that is recyclable: Glass- 100%; Insulating glass units- 95%; All Glass Entrance Doors- 95% (glass, extrusions, and castings is 100%, Brass, bronze, and stainless hardware 100%; Fasteners and misc. metals 0%).

***Environmentally Safe -***

Virginia Glass Products only uses lead-free ceramic enamel frit paint in the production of its spandrel glass products thus protecting the environment and waste stream.

***Energy Savings -***

Virginia Glass Products manufactures insulating glass units using only the TPS<sup>®</sup> Warm Edge Spacer System. This thermoplastic spacer offers the lowest conductivity rating of any established "warm-edge" spacer available for commercial construction projects, thus providing the project with reduced heat loss through the edge zone of the windows, reduced edge zone condensation and mold formation. The durability and flexibility of the spacer system will also offer unmatched life expectancy of the IG unit.