



LEED® Recycled Content for Glass

LEED®, which is an acronym for “*Leadership in Energy and Environmental Design*,” is a rating system, developed by the *U.S. Green Building Council* (www.usgbc.org), which serves to promote sustainable buildings, by awarding points for reducing energy use, improving indoor environmental quality and promoting a whole-building approach to sustainability.

LEED® v4 enables “*Credit Points*” to be earned in nine (9) categories. One of these categories, “*Materials and Resources*,” enables points to be earned for “*Sourcing of Raw Materials*”. Option 2 for this credit category includes the criteria for “*Recycled Content*”. LEED® v4 requirements for “*Recycled Content*” have not changed from LEED® 2009; however, this criterion is now combined with other criteria in a single option.¹

The purpose of this GIB is to clarify *the current requirements for recycled content claims for glass*.

Definitions¹

Recycled content is defined, under the International Organization of Standardization *Standard 14021 - Environmental labels and declarations - Self declared environmental claims (Type II environmental labeling)*, as the proportion, by cost, of post-consumer and pre-consumer recycled material in a product. Recycled content is the sum of post-consumer recycled content plus one-half the pre-consumer recycled content, based on cost. Products meeting recycled content criteria are valued at 100% of their cost for the purposes of credit achievement calculation

Post-consumer recycled content is the percentage of material in a product that is consumer waste. The recycle content was generated by household, commercial, industrial, or institutional end-users and can no longer be used for its intended purpose. The raw materials must have served a useful purpose in the consumer market before being used again.

¹ *LEED Reference Guide for Building Design and Construction, 2013 Edition, v4*

Pre-consumer recycled content is the percentage of material in a product that is recycled from the manufacturing waste stream. Excluded are scrap materials capable of being reclaimed within the same process that generated it. Pre-consumer recycled content comes from process waste that is used to make a different product.

Recycled Content Claims

A recycled content claim may be made only for materials that have been recovered, or otherwise diverted, from the solid waste stream, either during the manufacturing process (*pre-consumer*), or after consumer use (*post-consumer*).

If the recycled content includes *pre-consumer* material, the manufacturer or fabricator must be able to qualify how it was decided that the *pre-consumer* material, if not reused, would have entered the solid waste stream.

In making a recycled content claim, distinctions can be made between *pre-consumer* and *post-consumer* materials. If such distinctions are made, any express or implied claim about the specific *pre-consumer* or *post-consumer* recycled content must be qualified.

It is deceptive to claim that a product has *pre-consumer* recycled content when it includes recycled raw material, or used, reconditioned and remanufactured components.

Some examples:

- A glass manufacturer routinely collects *glass cullet* left over from the original manufacturing process and, after a minimal amount of reprocessing; the manufacturer combines the *glass cullet* with virgin material for use in further production of the same product. In such circumstances, any claim, that the product contains *pre-consumer* recycled material, is deceptive; since the *glass cullet*, to which the claim refers, would normally be reused in the manufacturing process, and would not normally have entered the solid waste stream.
- A glass manufacturer purchases *glass cut-offs* from a glass fabricator/distributor that collects discarded *glass cut-offs*. The glass manufacturer can include the weight of the *glass cut-offs* in its calculations of the *pre-consumer* recycled content of its products. A claim of *pre-consumer* recycled content, based on this calculation, is not deceptive because the purchased *glass cut-offs*, if not sold and reused, would have entered the solid waste stream.

Reusing materials reclaimed from the same process in which they are generated – though good practice – cannot, in the context of *LEED-certification*, contribute toward *pre-consumer* recycled content because it is not material diverted from the solid waste stream.

Unqualified claims, of recycled content, can be made if the *entire* product, excluding minor and/or incidental components, is made from recycled material. However, any claim for products



that are only *partially* made of recycled material, should be verified to avoid consumer deception about the weight of recycled content that the finished product contains.

For products that contain used, reconditioned or remanufactured components, any claim should be verified to avoid consumer deception about the nature of such components.

To calculate the percentage of recycled-content materials used in a project, list all recycled-content materials and products and their costs. For each product, identify the percentage of post-consumer and/or pre-consumer recycled content by weight, and list the recycled content information source. The information must come from a reliable, verifiable source, such as the product's manufacturer.

Implications of LEED® Recycled Content Claims for Glass

Glass cullet, generated in a float glass manufacturing plant, when reintroduced into the original process, *does not qualify as pre-consumer recycled content for LEED-certification.*

Glass cut-offs, purchased from a glass fabricator/distributor, and then reused by the float glass manufacturing plant that generated it, *does qualify as pre-consumer recycled content for LEED-certification.*

Given that most float glass manufacturing plants do not implement post-consumer content to maintain quality control and primarily combine the *glass cullet* they generate with virgin materials for use in further production, *the percentage of pre-consumer recycled content that would normally qualify for LEED-certification will be very limited.*

GANA recommends that an interested party check with their glass manufacturer/fabricator for more information about the *recycled content in glass* used in a specific project.

The Glass Association of North America (GANA) has produced this Glass Informational Bulletin solely to provide information regarding clarification of the current requirements for recycled content claims for glass. This bulletin makes no attempt to provide all information or considerations in the clarification of the current requirements for recycled content claims for glass. The user of this Bulletin has the responsibility to ensure their awareness of the LEED® recycled content of glass. GANA disclaims any responsibility for any specific results related to the use of this Bulletin, for any errors or omissions contained in the Bulletin, and for any liability for loss or damage of any kind arising out of the use of this Bulletin.

This bulletin was developed by the GANA Flat Glass Manufacturing Division and approved by the GANA Board of Directors. This document was first published in April 2010. This edition of the bulletin provides the most recent update and published in October 2017.

