

Recycled Glass Use

BACKGROUND

Vitro's process of continuous improvement in its float glass manufacturing has resulted in improved efficiency of those operations as units of raw materials and melting fuel required, per unit of finished output, have declined over the past decades. On this basis, for example, the amount of fuel needed to produce a finished ton of flat glass has been reduced by more than twenty percent over the past decade. Vitro's oxy-fuel process, now in place at three of its' ten float lines promises to further reduce melting fuel use.

GLASS RECYCLING

During float glass manufacturing some portion of the glass produced is discarded for various reasons:

- During "transitions" from one color (tint) to another
- During "transitions" from one thickness to another
- As the unfinished float ribbon edges are cut to provide a smooth cut edge and consistent dimension
- As the float ribbon is further cut to provide a variety of exact sizes
- As any portion of the glass is damaged or determined to be of sub-standard quality

Vitro float glass plants are equipped with extensive systems to recover and store the discarded glass, referred to as "cullet" in the industry. Cullet is then combined with the other batch materials for subsequent production.

Virtually one hundred percent of the cullet internally generated in Vitro plants is recycled back into production. Vitro has even developed the technology to utilize cullet from color transition periods to minimize waste, cost, and environmental impact.

In addition, cullet from Vitro's automotive glass fabrication plants, generated from cutting trim and discards, is also returned to the Vitro float plants. This process is closely controlled to combine similar glass types, avoid introduction of contaminants, and involves sufficient quantities to be economically viable by offsetting handling and transportation costs.

Vitro glass products are used in architectural applications, principally in homes and commercial buildings. Vitro glass products are provided to these architectural markets through a network of hundreds of window and door producers, glass fabricators and distributors, and end up in literally millions of homes and buildings throughout the United States. As a general rule, glass from these sources, either from customers or from homes or buildings which are being renovated or demolished, cannot be recycled for a number of reasons.

- It is not economically viable considering the wide geographic distribution and resultant costs of transportation.
- It is not economically viable because of the relatively high labor content needed to handle, segregate and package discarded glass.
- There is a significant risk of introducing contaminants, metals and inorganic minerals from glass which has been in place in buildings, and which could upset the float glass manufacturing process.

Further information pertaining to Vitro's cullet recycling can be found on Vitro's LEED Recycled Content Letter found on the Vitro Sustainability Website page or through the link below.

<https://www.vitroglazings.com/media/ke4lx3wi/recycled-materials-content-letter.pdf>

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HISTORY TABLE		
ITEM	DATE	DESCRIPTION
Original Publication	5/7/2003	
Revision #1	10/04/2019	Updated to Vitro logo and format
Revision #2	1/25/2019	Updated the Vitro logo and format
Revision #3	12/27/2024	Added reference to LEED Recycled Content Letter

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