Glass Recycling: Opportunity

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Bill Clark  |  Regional Sourcing Development Manager
Strategic Materials Inc.
Agenda

• Who is Strategic Materials?
• Why Glass?
• Glass current status
• Glass Future
Strategic Materials

Markets Served

We are the largest glass recycler in North America, with nearly 50 plants.

With over 100 years of experience, we are a recycling market leader for glass and plastics.

The markets we serve with our recycled glass helps to reduce manufacturing costs and improve sustainability.

We recycle nearly 3 million tons of glass a year into a variety of applications.
Strategic Materials

Our History

Throughout our 100+ year history, we have remained focused on creating value for our customers through innovation and customer improvement.

1896
Strategic Materials got its start in glass recycling as the Bassichis Company.

1989
Bassichis Company was purchased by Allwaste Recycling.

1990s
During this time we developed new, innovative glass recycling techniques. We also acquired a number of regional glass recyclers, becoming the first nationwide glass recycler.

1994
In 1994, Strategic Materials, Inc. officially spun off from Allwaste to become its own company.

2002
In 2002, we acquired NexCycle, a glass and plastic recycling business in Ontario, Canada.

2004
In 2004, we acquired Container Recycling Alliance, expanding our U.S. footprint.

2008
Acquisition of American Specialty Glass, coloring glass with glass-melting furnaces with proprietary methods & formulations for landscape, terrazzo, and fireplace markets.

2015
Reflective Recycling was purchased in December 2015, adding nine processing facilities to our portfolio.

*New Age Blast Media was rebranded as TruAbrasives in 2017
Footprint

Facilities in North America
We recycle nearly 3 million tons of glass a year into a variety of raw materials for manufacturing applications.

Recycled glass demand is more than current supply in the container glass and fiberglass insulation industries.
Why Glass?
Environmental Benefits

Glass is a sustainable, versatile, cost-saving material.

Glass never wears out and **can be recycled forever**.

**One 6-pack of recycled beer bottles produces enough fiberglass insulation to fill a standard wall cavity.**

**Recycling glass takes 30% less energy to produce glass from virgin materials.**

**Recycling conserves natural resources**
We perform inbound quality inspections and rate them based on the percentage of usable glass, generally clean glass with minimal or no visible contamination, and amount of ceramic, rock, or color contamination.

Our delivery inspection is either by:

- **Visual inspection** - in the case of Mixed Window Plate (MWP), Clear Window Plate (CWP), whole or 3-dimensional flint, amber, green or mixed color or

- **Sample analysis** - in the case of 3 Mix (single stream) glass from a Material Recovery Facility (MRF)
Our pricing for incoming glass is now tied to the quality of the supply. Key factors that drive processing:

- Non-Glass Residue % and local landfill rates
- Undersize %, plant capabilities and local disposal options
- Significant variance from these color percentages may reduce or increase the value of cullet stream.

Example:

- Logistics cost = $400  Truckload = 22 tons  Logistics Cost per ton = $18.18
- Inspection reveals material is only 50% usable, true logistics cost = $36.36 per usable ton
- Supplier can improve to 65% usable, logistics cost = $28 per usable ton
- Matrix based pricing increases the price to supplier

Strategic Materials pays more for better material
Glass Future

Collections:

- Single stream – curbside collections
- Glass drop offs & convenience sites
- Private collectors serving multifamily and commercial establishments
Glass Future

Single Stream Better

• Educate residents through social media or website about what is acceptable to recycle

• Improve or develop regular maintenance practices for MRF equipment

• Invest in new or upgrade equipment

• Utilize Strategic Materials glass handling & processing expertise

• Improve quality at the source

• Higher quality reduces logistics costs, reduces disposal costs and increases volume of glass recycled
Best Practices

What works well

• Containers, deployment
  • Easy to recognize, branded containers, well marked labels
  • Creating local partnerships, community involvement, and awareness

• Small, independent collectors – job stimulus
  • Developing to address underserved markets

• Aggregation Site / Collection Hub
  • We work to create a centralized collection spot within the state from collectors to drop off materials. Transport them in bulk to our glass processing facility.
The market for recycled glass in Region is strong, over 2300 people employed by nine companies in eight locations in 4 state region make over $3.3 billion of products with recycled glass: fiberglass insulation, new food grade glass containers, abrasive media, and reflective beads.\(^1\)

End Market Companies Operating in region:


\(^1\) Reference: SERDC [http://www.serdc.org/maps](http://www.serdc.org/maps)
Supplier Services

When you work with Strategic Materials, our experts can work with you to assess your operations and develop areas of improvement such as:

• New site construction suggestions to maximize value
• Quality improvement suggestions to maximize value
• Handling suggestions (i.e. spotted equipment, containers)
• Improvement financing
• Training
We believe recycling glass is viable and should continue to be a part of all recycling programs.

Glass never wears out. Demand for recycled glass products continues to be high.
Thank You
Thank You

Primary Contact, your Regional Sourcing Manager:

Bill Clark | **281-520-0613**
[link to email: bclark@strategicmaterials.com]

Our toll-free supplier hotline is **1-844-256-8985** or [suppliers@strategicmaterials.com](mailto:suppliers@strategicmaterials.com).

- Monday through Friday, 7:00am - 4:00pm CST
- Voicemails are typically returned within 24 hours.

Other Notable Contacts:
- Credit, Accounts Receivable: [AR@strategicmaterials.com](mailto:AR@strategicmaterials.com)
- Accounts Payable: [AP@strategicmaterials.com](mailto:AP@strategicmaterials.com)

Laura Hennemann | Director of Marketing
281-638-6469
[link to email: lhennemann@strategicmaterials.com](mailto:lhennemann@strategicmaterials.com)

Facebook.com/strategicmaterials
Twitter.com/stratmaterials
LinkedIn.com/strategicmaterials
Instagram.com/strategicmaterials