



Fiberglass Demand Could Open Up Glass Recycling Market

Arlene Karidis

Thu, 2016-07-21 04:41

Singlestream recycling processes present unique challenges to glass recovery. While rear load trucks and sorters' spinning discs increase efficiency, these technologies can break glass. But some recyclers have found a way to turn this negative into a positive.

They clean it, crush it even more, and sell their final output, cullet, to manufacturers who turn it into fiberglass insulation.

Owens Corning can't get ahold of enough cullet

Owens Corning uses more than one billion pounds of cullet every year for residential, commercial and industrial fiberglass applications.

Still, recyclers working to capitalize on the fiberglass market have a rough road to plow—even Kansas City, Mo.-based Ripple Glass, who processes up to 15 tons of glass an hour, mainly for fiberglass insulation.

"Glass is tough to work with and not for the faint of heart because there are huge investments with low profit margins," says Mike Utz, Ripple's cofounder.

Jumping through hoops to meet demands

Weeding out contaminants; dealing with inconsistent streams while working to meet end-users' stringent specs; steep investments in equipment that can wear out fast and paying to transport the heavy material, about half of which won't be usable for this market, are all part of the mix.

What Ripple has in its corner is that it's well positioned geographically. Kansas City has two large fiberglass manufacturers. And though the end output must meet stricter quality standards and costs more to produce than glass for other purposes, it generates more profit than glass for other uses.

Environmental and cost benefits to end users

Using cullet helps the fiberglass industry's bottom line, reducing energy costs (2 percent to 5 percent for every 10 percent of cullet used) and reducing wear and tear on their equipment, says Curt Rich, president and CEO, North American Insulation Manufacturers Association. There are also environmental benefits due to lower emissions and the generation of an end product made from renewable contents that delivers energy savings.

Specs for furnace-ready materials vary by manufacturer, but consistency is key, including consistency in size, color distribution, contaminant level and moisture, says Utz.

"We do quality control testing on these variables. But there may be days that we receive higher bar and restaurant loads, which is amber. Depending on where it comes from, it may be crushed more, so there will be variables in sizing. And in the winter there will be variables in moisture due to precipitation," he says.

Rumpke Waste & Recycling is one of the few large waste and recycling operators that is making glass recycling work. The company, with stakes in collections, landfills and MRFs, will process about 60,000 tons of glass for the fiberglass and glass container industries this year.

Itstwo MRFS receive materialfrom smaller feeder facilities where it is cleaned then shipped to the comapny's glass-processing plant in Dayton, Ohio.

Contamination remains the primary challenge when preparing glass for fiberglass insulation, namely in the form of shredded paper, plastic caps, dirt and grit, says Steve Sargent, Rumpke's director of recycling.

And since expanding their single-stream collection programs to small businesses, restaurants and bars, Sargent saysRumpke has seen an increase in items like straws, pencils and even chicken bones.

It's been an expensive investment both in equipment and operations, but there is a market. Still, while over two-thirds of the Dayton plant's revenue is derived from the fiberglass insulation niche, it generates a small portion of the company's overall profits.

Fiberglass works for Rumpke's business model

"We can tap into glass bottles and jars to boost our single-stream recycling programs. And we are preserving capacity of the landfills we own," says Sargent.

For Ripple it's about both money and the environment. They began to cash in on the fiberglass industry. But this focus sprung from another business – a brewery.

"We had a problem with waste glass ... so we spent years ... trying to figure out what we could do with it. We learned there was a local demand with no suppliers," says Utz.

Owens Corning, Ripple's main fiberglass customer, was happy to see the company address that demand.

"We can always use more recycled glass than we can get," says Frank O'Brien-Bernini Owens, Corning's vice president and chief sustainability officer.

"The challenge to increased availability is typically the result of low levels of postconsumer glass collection ... This is an area that is ripe for innovation and greater public/private collaboration," says O'Brien-Bernini.

But getting a strong footing means being able to produce quality and consistency for the customer.

"It goes back to collections and controlling the variables that you can control," says Utz.

Source URL: <http://waste360.com/glass/fiberglass-demand-could-open-glass-recycling-market>