



INNOVATIONS FOR LIVING®

GIVING GLASS A SECOND LIFE CHANCE CONVERSATION LEADS TO RECYCLING OPERATION



Kansas City resident Alan Lubert was among the first to recycle bottles with Ripple Glass.

Once upon a time, a few folks were sitting around in a Kansas City brewery enjoying the beverages and each other's company. They talked about world problems. That's about as common as pebbles on the shore, of course; it happens daily around the globe. Except in this case – metaphorically speaking – the pebble ended up in the water, making a splash that continues to ripple and benefit the environment.

Participants in the conversation were from two businesses – Boulevard Brewing Company and Owens Corning. The two parties met when the Owens Corning group visited Boulevard's tasting room before dinner. They soon learned they were both struggling with the same problem – a lack of glass recycling in the area.

Executives at Boulevard Brewing expressed dismay that most of the nearly 10 million beer bottles they sold in the Kansas City area during the previous year ended up in landfills. Manufacturing leaders from Owens Corning said they wanted to increase the recycled content of the fiberglass insulation they produce in the community but couldn't get enough of the material.

Fast-forward more than two years to today and we find 60 30-cubic-yard collection bins in the Kansas City area for empty glass containers. When the bins are full, they are transported to a state-of-the-art processing facility where they are sorted, cleaned, crushed and made into furnace-ready material for the production of fiberglass insulation and other products. The majority of the output goes to the Owens Corning facility in nearby Fairfax, Kan.

The recycling operation was established by Boulevard Brewing Company Founder and President John McDonald, Chief Financial Officer Jeff Krum and plant engineer Mike Utz, who teamed up with local companies DST Systems, Inc. and UMB Financial Corp. In a nod to the waves that continue to extend from the initial get-together, they named the enterprise Ripple Glass

"No one feels good about throwing away perfectly good glass," says Mike Utz, co founder and principal of Ripple Glass, and plant engineer for Boulevard Brewing.

"In 2008 alone, Kansas City residents threw away 150 million pounds of glass," he continues. "The glass recycling rate here is about 5 percent, compared to a national average of nearly 30 percent."

"We understand that Boulevard Brewing was part of the problem. We wanted to do something about that but didn't know exactly how until we met the team from Owens Corning and learned there is also a big need for recycled glass here in our community."

Owens Corning is one of the largest users of recycled glass in the world and the company's FIBERGLAS™ insulation is certified to have a minimum of 50 percent recycled content, the highest certification level for fiberglass insulation in North America. The company's certification number is based on its total production in North America.



"We were shipping in recycled glass from a facility four states away," says John Hutchinson, cullet sourcing leader for the Owens Corning insulation business. "Recycled glass melts at a lower temperature than the raw materials for glass so it helps reduce the amount of energy we use to make insulation. But

with 700 miles of transportation cost, the benefit is less. This new recycling facility allows us to connect the supply chain dots for glass recycling – local supply, local processing and local consumption. That's a win for everyone."

Recycled Glass Factoids

- Container glass is 100 percent recyclable, can be recycled endlessly and is a primary ingredient in fiberglass insulation
- Burying glass in a landfill wastes all the material, energy and labor that went into making it
- Every ton of glass that's recycled results in more than one ton of raw materials saved; that's 1,300 lbs. of sand, 410 lbs. of soda ash, 380 lbs. of limestone and 150 lbs. of feldspar
- A six-pack of recycled beer bottles produces enough fiberglass insulation to fill a standard 8' by 16" 2x4 wall cavity

Gale Tedhams, director of sustainability, green products and communications at Owens Corning, says recycling glass bottles to make fiberglass insulation is also a win for the environment.

"For every piece of glass we recycle, we not only reduce waste but put the glass to work as insulation to help increase energy efficiency," explains Tedhams. "From just one recycled six-pack of beverage bottles, Owens Corning will produce enough insulation to fill a standard home wall cavity. A properly insulated home, in turn, can also help home owners save up to 20 percent on their energy bills for heating and cooling.*"

"Glass takes many years to break down," she continues. "In addition to the environmental benefits of using post-industrial and post-consumer waste, the use of recycled content in Owens Corning insulation requires significantly less energy and helps reduce our CO2 emissions."

"The Ripple Glass business model is compelling," said Tom McDonnell, CEO of DST Systems. "We're behind this initiative because it addresses both the recycling and the re-sale of discarded glass, supporting not only the environment, but our local economy. Ripple's notion of 100-mile recycling is an idea that makes a lot of sense."

“One of the most rewarding aspects of our business is the fact that everything is local,” added Jeff Krum, Ripple Glass co-founder and principal. “The glass containers diverted from area landfills come from local consumers; they’re processed locally and re-used locally. It’s also safe to say that without the guidance and encouragement of Owens Corning – and of course their commitment to purchase our output – Ripple Glass would never have gotten off the ground.”

Employees at the Owens Corning plant in Kansas City are also impressed with the concept and pitching in to help gather bottles. One of Ripple’s purple collection bins is near the entrance to the plant so they can bring tomorrow’s recycled glass when they come to work today.

Glossary

Beer – (1) a beverage made by fermenting grains flavored with hops; (2) the world’s oldest and most widely consumed alcoholic beverage and the third most popular drink overall after water and tea

Boulevard Brewing Company – The largest specialty brewer in the Midwest, founded in 1989 and known for crafting fresh, flavorful beers

Cullet – Recycled glass that is part of the material melted to make fiberglass insulation and other glass products

Fiberglass insulation – A product for homes and other buildings that can save 12 times the energy used to make it in its first year in place

Owens Corning – A world leader in building materials systems and composite solutions known for PINK FIBERGLAS™ insulation that helps save energy and reduce greenhouse gas emissions



Ripple effect – (1) A term describing a situation where, like the ever expanding circle of waves across water when an object is dropped into it, an effect from an initial occurrence can be followed outwards incrementally; (2) when a good idea is disseminated to broaden its impact

Ripple Glass LLC -- An effective solution to one of Kansas City’s most intractable waste issues, recycling glass containers

Tasting room – A place where beer and other spirits are sampled and world problems are discussed and occasionally solved

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visit www.owenscorning.com/sustainability



Picture here are (l-r): Mike Utz, Principal, Ripple Glass; John Hutchinson, cullet sourcing leader for the Owens Corning insulation business; Deb Strahm, sourcing leader at the company's Kansas City Plant; and Stacia Stelk, Executive Director, Ripple Glass.

