

# The Scrap Recycling Industry: **Recycled Glass**

Glass is made from readily available domestic materials, such as sand, soda ash, limestone, and **“cullet,” the industry term for furnace-ready scrap glass.** Glass can be recycled again and again with **no loss in quality or purity.** In 2006, the scrap recycling industry processed 3.5 million tons of glass.

For every ton of glass recycled, more than a ton of raw materials are saved, including 1,300 pounds of sand, 410 pounds of soda ash, 380 pounds of limestone, and 160 pounds of feldspar.

Recycled glass is substituted for up to **70% of raw materials used in making new glass.** An estimated 80% of recovered glass containers are made into new glass bottles. In 2006, just over 25% of all glass containers were recycled. For glass beer and soft drink bottles, 30.7% were recycled that same year.

Manufacturers benefit from recycling in several ways: it **reduces emissions and consumption** of raw materials, **extends the life of plant equipment** (such as furnaces), and **saves energy.** Glass recycling creates no additional waste or byproducts.

Glass manufacturers are requiring more and more high-quality recycled container glass to meet market demands for new glass containers. **Color-sorted, contaminant-free recycled glass** helps ensure that these materials are recycled into new glass containers.

While curbside collection of glass recyclables can **generate high participation and large amounts of recyclables,** drop-off and commercial collections programs are also effective at yielding high-quality container glass.



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Institute of Scrap Recycling Industries, Inc.

Voice of the Recycling Industry

## THE RECYCLED GLASS INDUSTRY

Recycling glass requires 33% less energy than producing glass from natural materials.

Using furnace-ready scrap glass or cullet allows the glass-container industry to reduce energy input to its furnaces.

Energy costs drop about 2% to 3% for every 10% of cullet used in the manufacturing process.

For container glass, a relative 10% increase in cullet reduces particulates by 8%, nitrogen oxide by 4%, and sulfur oxides by 10%.

For every six tons of recycled container glass used, one ton of the greenhouse gas carbon dioxide is reduced.



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Sources: Glass Recycling, “Kirk-Othmer Encyclopedia of Chemical Technology” 4th edition, 1999, U.S. EPA, Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2006, Table 5