

The Scrap Recycling Industry: Plastics

Plastics recycling is a well-established national industry, focusing on a wide array of materials ranging from plastic bottles to plastics bags and film, as well as commercial and industrial grades of plastic. The world's annual consumption of plastic materials has increased from around 5 million tons in the 1950s **to nearly 100 million tons today.**

Although plastics provide many valuable uses, when they become obsolete or unwanted their presence in the waste stream poses a significant resource-recovery challenge. Discarded plastic products account for 20% by volume and 8% by weight of the municipal solid waste stream (compared to paper and paperboard at 34% by volume and 40% by weight). Nevertheless, **the rapid disappearance of landfill space, an expanding consciousness about environmental protection,** and a growing recognition of the inherent value of recycling have prompted widespread interest in recycling plastics.

Recyclable plastics come from municipal residential curbside programs, where plastic containers are often commingled (mixed) with aluminum and steel cans and glass containers; community drop-off sites; buy-back and deposit redemption centers; or source-separated office collection programs. Commercial enterprises such as restaurants, theaters, stadiums, and similar businesses also serve as additional collection sources. Industrial sources of plastic scrap include manufacturers of plastic products that have scrap resulting from the manufacturing process, including trimmings and other leftover materials.

Enhancing the recovery rate of recyclable plastics has been a slow process, **requiring a mix of economics, education, and public policy.** However, many factors are now converging to positively improve the prospects of recovering and recycling a variety of plastics. Requiring some level of **material segregation,** known as source separation, represents the best opportunity for **producing the highest-value and highest-quality** plastics for recycling.

For plastics recycling to succeed in the long term, **both material supply and demand must constantly be nurtured.** This requires a cooperative effort from the food and packaging industry, commercial and industrial manufacturers, the environmental community, the recycling industry, and government. Plastics manufacturers also need to **dramatically increase the volume of plastic** that can reasonably be recycled back into a marketable product. This is not a simple task. If plastics collected for recycling are manufactured from less recyclable plastics or contain hostile residue contaminants, the materials will be rendered unrecyclable and the material ultimately require disposal in a landfill.



In the U.S.,
2.5 million
plastic bottles
are disposed of
every hour.



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Voice of the Recycling Industry

THE PLASTICS INDUSTRY

Plastic bottle recycling has increased **dramatically** over the last 16 years, from 234 million pounds in 1989 to over 2.1 billion pounds in 2005.

All the recycled bottles in 2005 accounted for only 24% (by weight) of all plastic bottles produced in the U.S.

Recycling a single plastic bottle saves enough energy to power a 60-watt light bulb for six hours.

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Source: Association of Postconsumer Plastic Recyclers; American Chemistry Council's Plastic Recycling Facts; "More Than Just Plastics" by Dr. Seetha Coleman-Kammula, Plastics Recycling Update, August 2008.

