

By Chaz Miller

Aluminum Packaging

Aluminum packaging has never surpassed 1 percent of MSW.

BAUXITE ORE IS REFINED INTO alumina (aluminum oxide), one of the primary feedstocks for aluminum metal. Scrap aluminum provides 30 percent of America's aluminum supply. Recycled aluminum cans supply more than one fifth of the scrap used as a raw material.

Twenty percent of the aluminum used in America goes into packaging. This is the second largest use for aluminum, trailing transportation products, which use 34 percent. Aluminum is the third most-used material in automobiles.

Aluminum packaging is produced in both rigid and foil forms. Rigid aluminum containers are used for beverage and food packaging. Aluminum cans account for the entire beverage can market, but only a small percentage of the food can market. Cans comprise 78 percent of aluminum packaging by weight.

Foil packaging includes wrappers for products like cigarettes and candy, and semi-rigid containers, such as pie plates and frozen food trays.

Aluminum packaging has never had more than 1 percent market share of generated municipal solid waste (MSW).

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Sources:
 Aluminum Association, www.aluminum.org
 "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2006," Office of Solid Waste, www.epa.gov/osw
 "Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 1998," Office of Solid Waste, www.epa.gov/osw
 "Measurement Standards and Reporting Guidelines," National Recycling Coalition, Washington, www.nrc-recycle.org
 "Scrap Specifications Circular 2007," Institute of Scrap Recycling Industries, Washington, www.isri.org

*Data is from 2006 EPA estimates.

Aluminum Packaging MSW Facts:

Generated:

- 1.94 million tons, or 0.8% by weight.*
- 1.52 million tons of cans.*
- 420,000 tons of foil.*
- 12.96 pounds (lbs.) per person.*
- 10.20 lbs. of cans and 2.76 lbs. of foil per person.*
- 100.6 billion cans, or 336 per person.
- A can weighs 0.488 ounces.
- 34.17 cans in a pound.

Recycled:

- 690,000 tons, or 35.6%.*
- 650,000 tons of cans, or 45.1%.*
- 40,000 tons of foil, or 9.5%.*
- 53.8% can recycling rate in 2007 according to industry data.

Recycled Content:

- 41.3% for cans in 2006 according to industry data.

Composted:

- Can't compost aluminum packaging.

Incinerated or Landfilled:

- 1.25 million tons, or 0.7% of discarded MSW by weight.*
- 870,000 tons of cans and 380,000 tons of foil.*
- Aluminum is non-combustible and can create residue in incinerator ash.

Landfill Volume:

- 6.5 million cubic yards or 1.6% of landfilled MSW in 1997.
- 5.3 million cubic yards of cans and 1.2 million cubic yards of foil in 1997.

Density:

- Landfilled cans weigh 250 lbs. per cubic yard (lbs./cu. yd.).
- Landfilled foil, 550 lbs./cu. yd.
- Loose cans, 50-74 lbs./cu. yd.
- Flattened cans, 250 lbs./cu. yd.

Source Reduction:

- In 1972, 21.75 cans weighed 1 lb.
- In 2006, 34.17 can weighed 1 lb.

Recycling Markets:

- Aluminum can sheet manufacturers are the primary market for cans and foil.

End Market Specifications:

- ISRI Guidelines for Nonferrous Scrap: NF-2007 include "post consumer aluminum can scrap," and "shredded," "densified," "baled," and "briquetted," aluminum used beverage can scrap.
- Contaminants include dirt, moisture, plastic, glass and other metals. Lead is a particular problem.
- "Post-consumer aluminum foil" guidelines call for clean, dry foil.
- Foil and cans use different alloys and will contaminate each other in recycling.

Aluminum Packaging MSW Percentage and Recycling

