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US Collection

Recycled Plastic in Packaging: United States

October 2021



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About This Report

Scope

This report forecasts to 2025 US demand for recycled plastic resins in packaging demand in pounds. Total demand is segmented by resin in terms of:

- polyethylene terephthalate (PET)
- high-density polyethylene (HDPE)
- low-density polyethylene (LDPE), including linear low-density polyethylene (LLDPE)
- polypropylene (PP) and other plastic resins such as polystyrene (PS)

Total demand is also segmented by product as follows:

- bottles
- other rigid plastic packaging such as lids, pails, and trays
- flexible packaging

To illustrate historical trends, total demand is provided in annual series from 2010 to 2020; the various segments are reported at five-year intervals for 2010, 2015, and 2020.

Sources for scrap and waste plastics covered in this report include:

- food and beverage bottles
- rigid plastics and foam (including food containers)
- carpeting (including rugs) and fiber
- flexible packaging (including retail bags, trash bags, and film from other packaging products)

Excluded from the scope of this report are:

- waste primarily made of nylon
- post-industrial recycled content
- bioplastics and engineering plastics

Post-consumer recycled goods are those that have left the manufacturing facility and have been used, even if their final destination is another manufacturing facility. This is in contrast to post-industrial recycled materials, which are directly generated during the manufacturing process. For example, plastic trimmed from rigid packaging on the manufacturing line that is then recycled would be classified as post-industrial recycled content, while the stretch film used to secure the palletized goods that is removed at the beverage manufacturer's facility would be classified as post-consumer waste. Packaging made from post-industrial recycled waste is excluded from this report.

Key macroeconomic indicators are also provided with quantified trends. Other various topics, including profiles of pertinent leading companies, are covered in this report. A full outline of report items by page is available in the Table of Contents.

Sources

Recycled Plastics in Packaging: United States (FF55056) is based on *Recycled Plastics in Packaging*, a comprehensive industry study published by The Freedonia Group. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources, such as:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- intergovernmental and non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and studies by The Freedonia Group

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

Industry Codes

Table 4 | NAICS & SIC Codes Related to Recycled Plastic Demand in Packaging

NAICS/SCIAN 2017		SIC	
North American Industry Classification System		Standard Industrial Classification	
325211	Plastic Material and Resin Manufacturing	2821	Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers
325991	Custom Compounding of Purchased Resins	3087	Custom Compounding of Purchased Plastics Resins

Source: US Census Bureau

Freedonia Methodology

The Freedonia Group, a subsidiary of MarketResearch.com, has been in business for more than 30 years and in that time has developed a comprehensive approach to data analysis that takes into account the variety of industries covered and the evolving needs of our customers.

Every industry presents different challenges in market sizing and forecasting, and this requires flexibility in methodology and approach. Freedonia methodology integrates a variety of quantitative and qualitative techniques to present the best overall picture of a market's current position as well as its future outlook: When published data are available,

we make sure they are correct and representative of reality. We understand that published data often have flaws either in scope or quality, and adjustments are made accordingly. Where no data are available, we use various methodologies to develop market sizing (both top-down and bottom-up) and then triangulate those results to come up with the most accurate data series possible. Regardless of approach, we also talk to industry participants to verify both historical perspective and future growth opportunities.

Methods used in the preparation of Freedonia market research include, but are not limited to, the following activities: comprehensive data mining and evaluation, primary research, consensus forecasting and analysis, ratio analysis using key indicators, regression analysis, end use growth indices and intensity factors, purchase power parity adjustments for global data, consumer and end user surveys, market share and corporate sales analysis, product lifespan analysis, product or market life cycle analysis, graphical data modeling, long-term historical trend analysis, bottom-up and top-down demand modeling, and comparative market size ranking.

Freedonia quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or r^2 . The most stable data series relative to the trend carries an r^2 value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

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Resources

The Freedonia Group

Recycled Plastics in Packaging

Freedonia Industry Studies

Cannabis Packaging Opportunities

Food & Beverage Packaging Innovation

Food Packaging

Foodservice Single-Use Products

Fresh Produce Packaging

Frozen Food Packaging

Global Caps & Closures

Global E-Commerce Packaging

Global Pharmaceutical Packaging

Global Protective Packaging

Global Foodservice Single-Use Products

Global Single-Use Plastic Packaging Regulations

Labels

Meat, Poultry, & Seafood Packaging

Medical Device Packaging

Pharmaceutical Packaging

Plastic Film

Pouches

Protective Packaging

Retail Bags

Rigid Bulk Packaging

Stretch & Shrink Film

Freedonia Focus Reports

Bottled Water: United States

Municipal Solid Waste: United States

Polyethylene: United States

Polypropylene: United States

Polystyrene: United States

Polyurethane: United States

Polyvinyl Chloride: United States

Recovered Packaging: United States

Waste Management: United States

Freedonia Custom Research

Trade Publications

Packaging Digest
Packaging World
Plastics Magazine
Plastics News
Plastics Recycling Update
Recycling Magazine
Recycling Today

Agencies & Associations

American Chemistry Council
Association of Plastic Recyclers
National Association for PET Container Resources
National Waste and Recycling Association
North American Plastics Recycling Association
United States Census Bureau
United States Environmental Protection Agency
United States Food and Drug Administration