Recycled Plastics

US Industry Study with Forecasts for 2016 & 2021

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Gains will be driven in part by a growing emphasis on sustainability among packaging and consumer product manufacturers, and advancements in processing and sorting technologies.

**US demand to rise 6.5% annually through 2016**

US demand for post-consumer recycled plastic is forecast to rise 6.5 percent per year to 3.5 billion pounds in 2016. Gains will be driven by a number of factors, including a growing emphasis on sustainability among packaging and consumer product manufacturers, advancements in processing and sorting technologies allowing a wider variety of plastic to be recycled into high quality resins, and an improved collection infrastructure which raises the plastic recycling rate. Continued support by federal, state, and local governments for recycling efforts will also provide a significant boost to recycled plastic collection, processing, and demand. However, the overall rate of plastic recycling in the US will remain relatively low, since only about half of the plastic collected for recycling makes its way to manufactured products in the US market.

**Bottles to remain leading source of recycling plastic**

Bottles will remain the leading source of plastic for recycling, accounting for over half of all plastic collected in 2016. The well-established collection infrastructure, including deposit laws in several states, makes bottles one of the most widely recycled plastic products. More rapid gains, however, are forecast for other sources, particularly rigid plastics, film, and carpet. The recycling industry has put significant efforts into increasing the collection of rigid plastic, including thermoformed packaging and bulk containers, particularly at the commercial level. Bag and film recycling will also be bolstered by private sector collection initiatives, as these are a key source of raw materials for plastic bag and wood-plastic composite producers.

**Recycled PET products to see good growth, while HDPE gains will be subpar**

Polyethylene terephthalate (PET) and high density polyethylene (HDPE) were the two leading resins used in recycled plastic products in 2011, accounting for over 70 percent of demand. While PET will see above average gains in demand, fueled by rising recycled content in beverage bottles and thermoformed containers, subpar increases in HDPE collection will limit the availability of recycled resin. The most rapid growth is forecast for recycled low density polyethylene, which will benefit from a rebound in the construction market. Recycled polypropylene will also see healthy gains in demand as collection volumes increase and processing techniques improve the quality of the resin. Rapid growth is expected for smaller volume resins such as nylon and polystyrene, fueled by rising collection of products such as carpet, plastic foam, and consumer electronics for recycling.
Markets: PET

Recycled PET demand is forecast to rise 6.6 percent per year to 1.3 billion pounds in 2016. This represents a substantial acceleration from the 2001-2011 performance, fueled by an improved outlook in car-pet and furnishings markets as building construction activity rebounds. Additionally, PET demand will benefit from rising use in higher value resin applications, especially bottles and food containers. The availability of recycled PET in the US market, due to PET thermoform recycling efforts and expansions in processing capacity, will bolster resin demand. However, advances will be limited by the difficulties in producing high performance food-grade PET from recycled feedstocks, particularly with ongoing issues related to contamination in the recycling stream.

PET has one of the oldest recycled plastic markets, as the resin has been widely recycled in the US since the 1980s. As a result, the industry is far enough along in its life cycle that some major applications have achieved maturity status. This is most evident in fiber applications for recycled PET, such as carpet, furnishings, apparel, and strapping. In these markets, recycled PET tends to compete strictly on price considerations, rather than by adding value through sustainability or “green” cachet. During the 2006-2011 period, many of these markets experienced declining demand, impacted by the economic recession (carpets, strapping) or overseas competition (apparel, furnishings). For example, in 2001 carpets and rugs accounted for 42 percent of recycled PET demand, but this had fallen to 25 percent of demand in 2011.

Nonetheless, many of these more mature recycled PET markets are expected to rebound strongly through 2016 as economic prospects improve. Carpet manufacturers are showing a renewed interest in recycled PET, particularly as the marketability of sustainable products continues to grow due to their appeal to US consumers. Many carpet manufacturers...
MRC Polymers Incorporated
3535 West 31st Street
Chicago, IL  60623
773-890-9000
http://www.mrcpolymers.com

Annual Sales:  $35 million (verified by company, 10/12)
Employment:  100 (verified by company, 10/12)
Key Products:  recycled engineering grade and commodity thermoplastic compounds

MRC Polymers reclaims various grade thermoplastics from post consumer plastic scrap and post industrial plastic wastes and uses them in the production of engineering grade and commodity thermoplastic compounds. The privately held company conducts manufacturing operations at its headquarters site in Chicago, Illinois and also performs toll plastic recycling services.

The Company’s range of more than 120 recycled thermoplastic compounds includes polycarbonate, polycarbonate alloys, polycarbonate/acylonitrile butadiene styrene (ABS) compounds, polycarbonate/polybutylene terephthalate compounds, polyethylene terephthalate (PET) compounds, polycarbonate/PET compounds, and nylon. These products are sold under such tradenames as NAXALOY, EMAREX, MAXNITE, NAXELL, MAXTEL, MAXNITE, and SATRAN. The Company’s polymer compounds are high quality, engineering grade products that are marketed as cost competitive alternatives to virgin resins. The Company reclaims thermoplastics from such post consumer plastic scrap materials as large water bottles, advertisement sheets, and car bumpers. Among the post industrial plastic waste recycled by MRC Polymers are compact discs, DVDs, and DVD covers.

“Demand for recycled plastic in bottles will rise 4.7 percent per year to 860 million pounds in 2016. Bottles will continue to account for the majority of recycled content plastic packaging due to the presence of well developed and economically viable recycling infrastructures for polyethylene terephthalate (PET) and HDPE, and expanding bottle-to-bottle recycling activity in PET bottles. Additionally, ...”

--Section V, pg. 131
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