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Degradable Plastics

US Industry Study with Forecasts for **2014 & 2019**

Study #2648 | August 2010 | \$4800 | 202 pages

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Gains will reflect continued capacity growth, increasingly competitive prices, efforts to reduce reliance on petroleum products, and consumer demand for sustainable packaging and products.

US demand to rise 16.6% per year through 2014

US demand for degradable plastics is forecast to rise 16.6 percent per year to 325 million pounds in 2014, valued at \$380 million. The degradable plastic industry has been on the verge of commercial success for decades. However, demand growth was limited because most degradable plastics were too expensive, were unavailable in large enough quantities or had performance drawbacks that limited them to niche markets. This situation began to change in the early 2000s, as interest in environmentally friendly products gained strength, and the availability of biodegradable plastics increased significantly due to expansions by key producers.

These positive trends for degradable plastics are expected to continue, along with increasingly competitive prices. Degradable plastics are also being improved by the use of more sophisticated polymerization and blending techniques as well as higher yield processing technologies. Certification standards have been established, with growing pressure to limit packaging waste and further develop the US composting infrastructure, which significantly lags that of Western Europe.

PLA to register fastest gains among major types

Polylactic acid (PLA) and starch-based plastics currently dominate the market



and both products are expected to see strong growth. PLA will register the faster gains, over 20 percent per year through 2014, due to increased availability, greater processor familiarity and performance enhancements that will expand potential applications. Starch-based resins will benefit from the introduction of improved resin grades, blending with other biopolymers and an increasing number of suppliers. Opportunities are expected in compostable yard and kitchen bags, foodservice disposables and various types of packaging. However, loose-fill applications will suffer from market maturity and competition from other types of environmentally friendly packaging.

Rapid growth expected for new PHA degradable resins

The strong outlook for degradable plastics is prompting the development of new products. One of these is polyhydroxyalkanoate (PHA). While sales of PHA were negligible in 2009, rapid growth over the next ten years should boost the product up among the leading types of degradable plastics. Growth is predicated on significant capacity increases, competitive pricing and the development of grades capable of replacing polyolefins in higher performance injection molded articles as well as in foodservice disposables, nonwovens, containers and bottles.

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Sample Text, Table & Chart

PRODUCTS & MARKETS

Molded Goods

Demand for degradable plastics in the production of molded goods is projected to reach 1.1 billion pounds in 2014. PLA will remain the leading degradable resin for molded good applications. Demand will continue to grow as PLA finds particular applications in degradable resins continue to expand annually to new uses. PLA finds particular applications in degradable resins continue to expand annually to new uses. PLA finds particular applications in degradable resins continue to expand annually to new uses.

SAMPLE TEXT

Degradable plastics are also used to a lesser degree in blow molded and other molded products. Demand for degradable plastic bottles will increase due to expanded use in the bottling of water, milk and juices. PLA will remain the sole degradable bottle resin. However, applications for PLA bottles are limited due to performance issues. For instance, PLA's moisture barrier properties are only one-eighth that of PET. Hence, bottles should be used only for products with relatively short shelf lives -- around six months versus up to two years for PET. PLA is also not suitable for bottling carbonated soft drinks, and is temperature-sensitive and cannot be used in the hot-fill bottling of sports foods such as jams and jellies. Nonetheless, PLA has good oxygen barrier properties and provides a good barrier to flavors and aromas. Demand for PLA bottle use will therefore center on fresh dairy products, oils, fruit juices and still mineral water.

TABLE IV-2

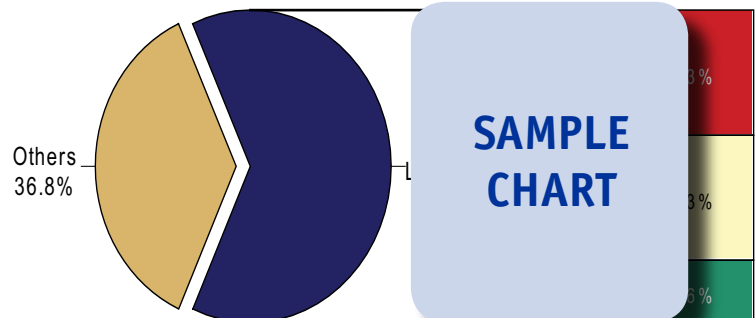
DEGRADABLE FILM DEMAND BY PRODUCT & TYPE
 (million pounds)

Item	1999	2004	2009	2014	2019
Plastic Film Demand	11	15	20	25	30
% degradable					
Degradable Film Demand					
By Product:					
Packaging Film					
Agricultural & Other Film					
By Type:					
Cellulose					
Starch-Based					
Petroleum-Based					
Polylactic Acid					
Polyhydroxyalkanoates					
Other					
% film					
Degradable Plastic Demand					

SAMPLE TABLE

CHART V-1

DEGRADABLE PLASTIC MARKET SHARE
 (\$198 million, 2009)

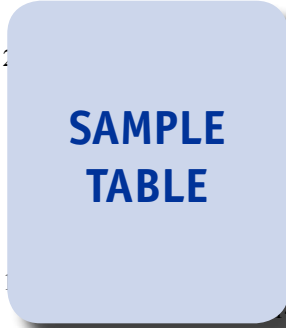


SAMPLE CHART

Sample Profile, Table & Forecast

TABLE III-4
STARCH-BASED PLASTIC DEMAND BY PRODUCT
 (million pounds)

Item	1999	2004	2009	2014	2019
Degradable Plastic Demand					70
% starch-based	2				3
Starch-Based Plastic Demand					70
Foam Products					41
Film					39
Molded Goods					77
Other					13
\$/lb					32
Starch-Based Plastic Demand (mil \$)					40



COMPANY PROFILES

Cortec Corporation
 4119 White Bear Parkway
 St. Paul, MN 55110
 651-429-1100
 http://www.cortec.com

Annual Sales:
 Employment:

Key Products: bags, resins & ties

Cortec Corporation is an environmentally friendly corrosion resistant chemical products. The Company operates through several divisions and businesses, including the Advanced Films, Coated Products and Spray Technologies divisions.

The Company is active in the US degradable plastic industry through the Advanced Film division (Cambridge, Minnesota). Via the division, Cortec manufactures plastic film, bags and related products, including biodegradable and compostable varieties.

The Company's biodegradable and compostable products include ECO FILM, ECO WRAP and ECO-CORR films; ECO WORKS films, bags and resins; and ECO-TIE ties. These products are designed to convert into carbon dioxide and water within weeks of disposal in a commercial composting facility or similar environment with high microorganism activity.

Cortec's ECO FILM film is formulated to be 300-percent stronger than low density polyethylene (LDPE), while offering a similar appearance. This product is available in stock and custom sizes. Cortec also

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"Demand for starch-based resins in the production of molded goods is projected to grow over 20 percent per annum to 28 million pounds in 2014. Molded products include thermoformed packaging items such as trays and various containers. Other diverse starch-based uses include golf tees, pen barrels, toys and disposable razors. Starch-based degradable plastics are also used to coat or laminate paper, thus maintaining its biodegradability."
 --Section III, pg. 71-2

OTHER STUDIES

World Emulsion Polymers

Global demand for emulsion polymers will rise 5.2% annually through 2014, driven by rising demand for latex polymers used in the production of water-based paints, coatings and adhesives. Acrylics will remain the leading emulsion polymer type and grow the fastest. This study analyzes the 9.9 million metric ton world emulsion polymer industry, with forecasts for 2014 and 2019 by market, product, world region and for 14 major countries. It also evaluates company market share and profiles industry players.

#2686 October 2010 \$5700

Silicones

US demand for silicones is forecast to rise 5.3% annually through 2014. Consumer goods such as cosmetics and toiletries will remain a fast growing market, as will medical products. Silicone gels will be the fastest growing type, driven by robust growth in demand for gel encapsulants in LED and photovoltaic applications. This study analyzes the \$2.8 billion US silicone industry, with forecasts for 2014 and 2019 by product, market and application. It also evaluates company market share and profiles industry players.

#2665 July 2010 \$4700

Thermoplastic Compounding by Independents

US demand for independently compounded thermoplastics is forecast to rise 2.7% yearly through 2013. Value gains will be fueled by shifts toward more highly tailored resin formulations. Best opportunities are expected for TPEs and polypropylene, while PVC remains the largest segment. This study analyzes the 6.6 billion pound US independently compounded TP industry, with forecasts for 2013 and 2018 by resin and market. It also evaluates company market share and profiles industry players.

#2577 February 2010 \$4700

Extruded Plastics

US demand for extruded plastics is forecast to expand 2.6% yearly through 2013, supported by a turnaround in the housing market. PVC will remain the largest segment, and will be one of the fastest growing. Slower advances for LDPE will reflect saturated film and sheet applications in packaging. Extruded polypropylene will grow the fastest. This study analyzes the 30 billion pound US extruded plastics industry, with forecasts for 2013 and 2018 by resin and market. It also evaluates company market share and profiles industry players.

#2566 December 2009 \$4700

World Bioplastics

Global demand for biodegradable or plant-based plastic resins will rise more than fourfold through 2013. Non-biodegradable plant-based plastics will grow the fastest and surpass biodegradable types as the dominant bioplastic resin. The Asia/Pacific region will surpass Western Europe as the largest market. This study analyzes the \$793 million world bioplastic industry, with forecasts for 2013 and 2018 by product, market, world region and for 16 countries. It also evaluates company market share and profiles industry players.

#2548 November 2009 \$5800

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