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# Plastic Containers

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US Industry Study with Forecasts for **2012 & 2017**

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*Gains will be bolstered by plastic's many benefits relative to other packaging media, including light weight, shatter resistance, design flexibility, clarity, strength and effective barrier properties.*

## US demand to grow 3.0% annually through 2012

US demand for plastic containers will advance three percent annually through 2012 to 15.7 billion pounds of resin. Gains will be bolstered by plastic's many benefits relative to other packaging media, including light weight, shatter resistance, design flexibility, clarity, strength and effective barrier properties. The value of the plastic container market will advance 5.4% annually to nearly \$32 billion. Growth in resin volume will be restrained by lightweighting and down-gauging efforts aimed at reducing resin consumption. Unit expansion will outpace volume increases as a result of consumer preferences for smaller, single-serving containers in large markets like food and beverages.

## Plastic bottles, jars to offer best opportunities

Plastic bottles and jars, which accounted for 78 percent of plastic container poundage in 2007, will remain the leading container type through 2012. Unit demand will increase 4.8 percent per year through 2012 to 168 billion units, supported by the popularity of smaller-sized beverage bottles and continued expansion of the bottled water market, the largest single market for plastic bottles. The food market will also provide good opportunities as the improved barrier properties of polyethylene terephthalate (PET) will expand the



use of plastic bottles and jars in hot-fill applications. In the pharmaceuticals market, the aging population will benefit plastic bottle and jar demand, as senior citizens tend to be among the heaviest consumers of packaged medications. In markets such as household chemicals, industrial and institutional cleaning chemicals, and automotive fluids, market maturity will result in below-average bottle and jar unit gains. Demand for resin used in plastic bottles and jars will advance 3.0 percent annually to 2012, with growth being hindered by a shift to smaller laundry detergent bottles containing more concentrated formulations.

Plastic pails will see below-average growth based on competition from

alternative packaging like drums and intermediate bulk containers. Demand for plastic tubs, cups and bowls will benefit from ongoing use in the packaging of such foods as yogurt, cottage cheese and dips. Other segments of the plastic container industry will have varied prospects, with containers such as cans and squeeze tubes registering the fastest gains. Can demand will be bolstered by further inroads into the paint market, while squeeze tube gains will be aided by increasing production of skin care products. Tray demand will be supported by heightened use of dual-ovenable trays that can be used in microwave and conventional ovens.

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## Sample Text, Table & Chart

### BOTTLES & JARS

#### Plastic Beverage Bottles

Plastic beverage bottles are expected to grow through 2012 to nearly 100 billion units. Average bottles is expected to grow from 1.5 pounds in 2012. Advances in technology and the average bottle size continues to decrease. The average size of single-serving (typical 16-ounce) soft drinks, bottled water, and other beverages is growing. In response to environmental concerns and high material costs. For example, in May 2008 PepsiCo reported that it had reduced the amount of plastic used in bottles of LIPTON iced tea, AQUAFINA FLAVORSPLASH flavored water and other beverages by 20 percent.

In addition to the popularity of single-serving sizes throughout most beverage applications, plastic beverage bottle unit growth will be aided by continued expansion of the bottled water market, which is benefiting from its healthy image and concerns over the negative health effects (e.g., diabetes, obesity) of sugar-laden beverages like soft drinks. Robust gains in the sports drink market will also bolster demand, as these beverages continue to be popular among athletes and other active consumers. Gains will also be supported by continued inroads into markets such as ready-to-drink tea and functional beverages as a result of improvements in hot-fill PET bottle performance.

Hot-fill PET bottle designs have been a focus of plastic beverage bottle development in recent years, as such designs enable plastics to

SAMPLE  
TEXT

TABLE V-16

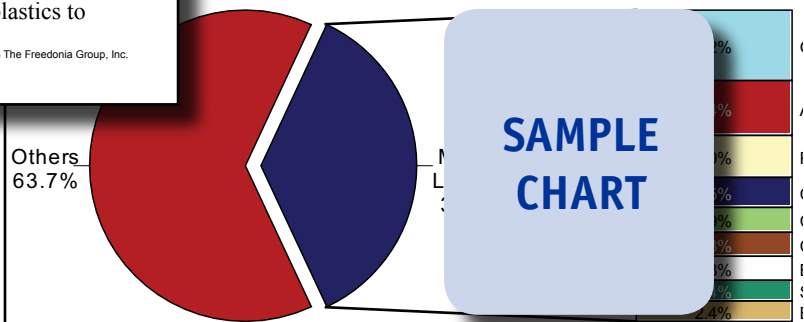
### PLASTIC FOOD BOTTLE & JAR DEMAND

Item	1997	2002	2007	2012	2017
Food Product Shipments (bil 2000\$)	390	450	500	550	600
units/000\$ food	1.5	1.5	1.5	1.5	1.5
Plastic Food Bottle & Jar Demand (mil)	10	10	10	10	10
Sauces & Condiments	2	2	2	2	2
Dairy Products	2	2	2	2	2
Edible Oils	2	2	2	2	2
Other	2	2	2	2	2
ounces resin/unit	6	6	6	6	6
Resin Demand (mil lbs)	5	5	5	5	5
PET	2	2	2	2	2
High Density Polyethylene	3	3	3	3	3
Polyvinyl Chloride	2	2	2	2	2
Other Resins	38	38	38	38	38

SAMPLE  
TABLE

CHART VII-1

### PLASTIC CONTAINER INDUSTRY MARKET SHARE, 2007 (\$24.5 billion)

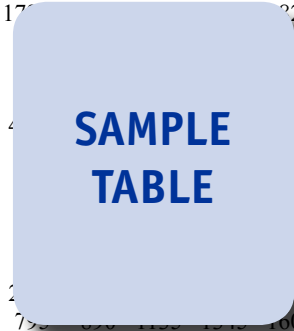


SAMPLE  
CHART

## Sample Profile, Table & Forecast

**TABLE VI-2  
PLASTIC PAIL DEMAND**

Item	1997	2002	2007	2012	2017
Nondurable Goods Shpts (bil 2000\$)	177	185	193	201	225
units/mil \$ nondurables	4.0	4.1	4.2	4.3	4.5
HDPE Pail Demand (mil ounces/pail)	4.0	4.1	4.2	4.3	4.5
Resin Demand (mil lbs)	4.0	4.1	4.2	4.3	4.5
Open-Head					90
Tight-Head					55
\$/unit	2.0	2.1	2.2	2.3	2.5
HDPE Pail Demand (mil \$)	79	85	91	97	100



**COMPANY PROFILES**

**Drug Plastics and Glass Company Incorporated**  
 One Bottle Drive  
 Boyertown, PA  
 610-367-5000  
<http://www.drugplastics.com>

Annual Sales:  
 Employment:  
 Key Products: polyethylene terephthalate and polypropylene

**SAMPLE PROFILE**

Drug Plastics and Glass (DP&G) is a privately held manufacturer of plastic bottles, jars and closures. The Company markets its products to the pharmaceutical, personal care, cosmetic, chemical and food industries.

The Company produces plastic bottles and jars from such materials as high density polyethylene (HDPE), low density polyethylene, polyethylene terephthalate (PET) and polypropylene. Products are manufactured and marketed under such brand names as ADINA, CENTAUR, EZY GRIP and MEDICAMENT. For example, the ADINA containers, which are available in round, cylinder, oval and square shapes, are fabricated from HDPE and PET. CENTAUR round HDPE bottles are produced in a 16-ounce size, while DP&G's EZY GRIP products include the AMITY wide-mouth rounds, as well as BOSTON rounds, PRINCE cylinders and wide-mouth rounds. MEDICAMENT bottles have a square shape and are made from HDPE.

The Company's bottles and jars are manufactured using a variety of molding processes. These processes include injection blow molding, compression blow molding, extrusion blow molding, injection-stretch blow molding, injection molding and coextrusion/multilayer molding.

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"Demand for open-head plastic pails is forecast to increase 1.9 percent per year to 1.1 billion pounds in 2012, accounting for 93 percent of all plastic pails by weight. Growth will be driven by heightened production of food, paints, coatings and adhesives, which are major applications for open-head pails. In addition, advances will be bolstered by the ongoing replacement of steel pails by plastic types in certain applications."

--Section VI, pg. 198



**OTHER STUDIES**

**Sterile Medical Packaging**

This study analyzes the US sterile medical packaging industry. It presents historical demand data (1997, 2002 and 2007) and forecasts for 2012 and 2017 by product (e.g., thermoformed trays, sterile pouches, prefillable syringes, vials, IV containers, sterile blister packs and clamshells, sterile bags, sterile plastic bottles), application (e.g., drugs, medical supplies and devices, diagnostic products); and material. The study also considers market environment factors, evaluates company market share and profiles industry players.

#2405 ..... 09/2008..... \$4600

**Biodegradable Plastics**

This study analyzes the US biodegradable plastics industry. It presents historical demand data for the years 1997, 2002 and 2007 and forecasts for 2012 and 2017 by biodegradable plastic type (e.g., polylactic acid, starch-based, cellophane, polyester-based, photodegradable, polyvinyl alcohol, polyethylene oxide); and market (e.g., packaging, fiber, medical). The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry participants.

#2387 ..... 08/2008..... \$4600

**Plastic Film**

US demand for plastic film will reach 16 billion pounds in 2012. Gains will reflect film's cost, performance and source reduction advantages over rigid packaging, as well as opportunities in products such as pouches and modified atmosphere packaging. LDPE will remain the top film, while the lower volume degradable plastic segment leads gains. This study analyzes the \$25.4 billion US plastic film industry, with forecasts for 2012 and 2017 by type, application and market. It also evaluates market share and profiles industry players.

#2371 ..... 07/2008..... \$4700

**Pouches**

Demand for pouches in the US will climb 6.1% annually through 2012. Stand-up pouches will exhibit robust advances, while flat pouches will post healthy gains in a number of markets. The largest market, food and beverages, will continue to experience healthy growth. This study analyzes the US market for pouches, with forecasts for 2012 and 2017 by product and market. It also considers market environment factors, evaluates company market share and profiles industry participants.

#2367 ..... 06/2008..... \$4700

**Plastic Sheet**

Demand for plastic sheet in the US will reach 7.7 billion pounds in 2011, based on sheet's versatility, aesthetic and material combining advantages. Food packaging will be the fastest growing market and account for nearly half of all demand. Polystyrene, polypropylene and polyester sheet offer the best prospects by resin type. This study analyzes the \$6.7 billion US plastic sheet industry, with forecasts for 2011 and 2016 by resin and market. It also evaluates company market share and profiles major players.

#2283 ..... 12/2007..... \$4500

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