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Plastic & Competitive Pipe

US Industry Study with Forecasts for **2015 & 2020**

Study #2738 | February 2011 | \$5100 | 317 pages

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The Freedonia Group

767 Beta Drive

Cleveland, OH • 44143-2326 • USA

Toll Free US Tel: 800.927.5900 or +1 440.684.9600

Fax: +1 440.646.0484

E-mail: info@freedoniagroup.com

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Gains will be fueled in part by a rebound in construction activity, higher state and municipal infrastructure spending, and expanding oil and gas exploration and transmission activity.

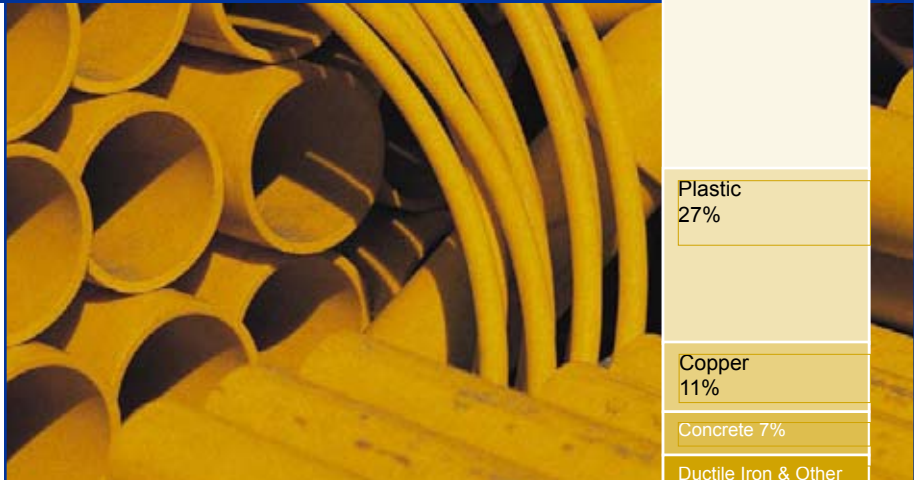
US demand to rise 6.6% annually through 2015

US demand for pipe is forecast to advance 6.6 percent per year to \$38.6 billion in 2015. Gains will represent a substantial turnaround from the declines of the 2005-2010 period, during which pipe demand was hampered by an economic recession and a sharp drop in building construction spending. Going forward, however, strong increases in pipe demand will be fueled by a number of factors, including a rebound in construction activity, an improved outlook for state and municipal infrastructure spending, an expansion of oil and gas exploration and transmission activity, and the continued need to replace and repair the country's aging water pipe networks. Price increases will decelerate from their 2005-2010 growth, as the cost of key raw materials such as plastic resin, metals and cement is expected to moderate going forward.

Steel pipe to remain leading pipe material

Steel pipe will remain the leading pipe material in the US through 2015, as it continues to dominate the large oil and natural gas market, as well as retain strong positions in applications such as storm sewer and industrial processing pipe. However, steel pipe demand will rise at a pace well below the overall average, restrained by a high degree of market maturity and competition from plastic pipe. Faster growth is forecast for concrete and ductile iron pipe, which

US Pipe Demand by Material (\$28.1 billion, 2010)



hold a commanding share of the large-diameter sewer, drainage and water transmission markets. Copper pipe will also see above-average gains in demand, benefiting from a rebound in building construction and refrigeration equipment production.

Plastic pipe to be fastest growing pipe material

Plastic pipe will be the fastest-growing pipe material through 2015, continuing to steadily take share from competing materials in a range of markets. Rising demand for plastic pipe will be driven by resin improvements which enhance pipe performance in more demanding environments, while processing improve-

ments will allow plastic pipe to be more cost-effective compared to other materials. Polyvinyl chloride (PVC) will remain the leading resin used in plastic pipe through 2015, due to its dominant position in small-diameter applications such as potable water distribution, sanitary sewer and agricultural markets. While PVC pipe demand declined considerably during the 2005-2010 period, the expected recovery in building construction activity will fuel strong gains through 2015. High density polyethylene (HDPE) pipe, however, has the best long-term growth prospects among major plastic pipe resins. HDPE will continue to gain ground on concrete, steel, PVC and other competing pipe materials.

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Sample Text, Table & Chart

PIPE MARKETS

Plastic Oil & Gas Pipe Demand by Resin

Demand for plastic oil and natural gas pipe is expected to grow at a rate of 1.5 percent per year to \$1.5 billion by 2020. Polyethylene (PE) is the leading resin, accounting for 53.3 percent of total plastic oil and gas pipe consumption. HDPE is the most widely used resin in pipe for gas distribution -- the most common utility to a residential area. HDPE gas pipe is lighter than steel gas pipe. It is easier to install and more resistant to corrosion than steel gas pipe. It is also more resistant to electrofusion methods used in long coils. In certain applications, HDPE pipe benefits from its inherent flexibility and joint sealing capabilities. However, the demanding requirements for most wellhead pipe will deter further HDPE pipe advances.

Reinforced thermosets are the second most widely used plastic resin used in oil and gas pipe, and are expected to see the strongest growth in demand through 2015. Glass-reinforced epoxy and polyester resins will continue to take share (albeit slowly) from traditional steel pipe in oil and gas pipelines. Thermoset pipe is generally used in more specialized pipeline applications requiring higher strength, pressure tolerance and corrosion resistance, including overhead piping (which requires greater structural strength) or burial in rocky terrain. In oilfield applications, uses include downhole tubing for oil extraction or water injection in tertiary oil production, crude oil gathering lines, disposal wells, injection wells, saltwater disposal and injection, and carbon dioxide injection and gathering.

Other resins used in plastic oil and gas pipe include polyvinyl chloride (PVC) and smaller-volume materials such as polyamide and fluoropolymers. PVC pipe is used in applications requiring a rigid material, such as free-standing effluent pipelines. PVC pipe can be custom tailored via compounding for specific applications, such as enhanced flame resistance or other properties. However, PV

56

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TABLE IV-2

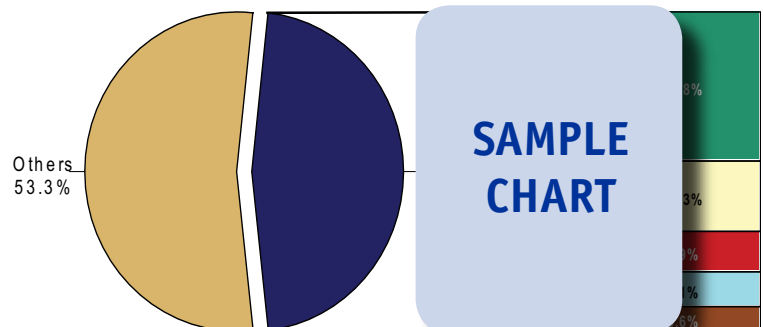
PIPE DEMAND BY MATERIAL IN POUNDS
(million pounds)

Item	2000	2005	2010	2015	2020
Gross Domestic Product (bil \$)	10,000	12,000	14,000	16,000	18,000
lbs pipe/000\$ GDP	100	100	100	100	100
Total Pipe Demand	150	150	150	150	150
Concrete	100	100	100	100	100
Steel	100	100	100	100	100
Plastic	50	50	50	50	50
Ductile Iron	50	50	50	50	50
Copper	45	45	45	45	45
Aluminum	90	90	90	90	90
Clay	15	15	15	15	15
\$/lb	53	53	53	53	53
Total Pipe Demand (mil \$)	20,000	20,000	20,000	20,000	20,000

SAMPLE TABLE

CHART VI-1

US PLASTIC PIPE MARKET SHARE, 2010
(\$7.6 billion)



SAMPLE CHART

Sample Profile, Table & Forecast

TABLE V-6
HIGH DENSITY POLYETHYLENE PIPE DEMAND BY MARKET
 (million dollars)

Item	2000	2005	2010	2015	2020
HDPE Pipe Demand	100	150	200	250	350
Sewer & Drainage:					
Corrugated Pipe					80
Other HDPE Pipe					70
Oil & Gas:					65
Natural Gas					20
Crude Oil					45
Industrial Processing					40
Conduit					90
Potable Water					93
Irrigation					64
Structural, Mechanical & Other					48

**SAMPLE
TABLE**

COMPANY PROFILES

National Pipe & Plastics Incorporated

3421 Old Vestal Road
 Vestal, NY 13850
 607-729-9381
<http://www.na>

Annual Sales:

Employment:

Key Products:

**SAMPLE
PROFILE**

National Pipe & Plastics Incorporated is a manufacturer of polyvinyl chloride (PVC) and high density polyethylene pipe for use in plumbing, water and sewer, electrical, industrial and telecommunications markets. The Company is privately held.

The Company, one of North America's leading manufacturers of PVC pipe, mainly serves customers in the New England, Northeastern, Mid-Atlantic and Southeastern regions of the US. Production activities are carried out in Vestal, New York and Colfax, North Carolina.

For plumbing applications, the Company makes PLUMB-RITE Schedule 40 and CORR-GARD Schedule 80 pressure pipes. These pipes, which can also be used for drain, waste and vent applications, are produced in diameters ranging from 1/2 to 12 inches. National Pipe & Plastics' main products for the water and sewer market encompass DURA-BLUE, SDR and EVER-GREEN PVC pipes. These products are marketed as replacements for deteriorating metal pipe. DURA-BLUE municipal water pipes include the C905 type, which is available in diameters ranging from 14 to 24 inches; and the C900 version in diameters from 4 to 12 inches. The SDR range comprises 2- to 12-inch-diameter pressure rated pipe for water transmission applications.

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"Potable water will exhibit the fastest HDPE pipe growth, expanding over eleven percent per year to \$262 million in 2015. Improvements in HDPE resin performance will enhance its crush resistance and high pressure capabilities, permitting greater competition with cast iron pipe in water distribution. The American Water Works Association has also approved HDPE for use in all levels of the potable water distribution market. Crosslinked polyethylene will exhibit rapid growth in potable water uses, due to ..."

--Section V, pg. 166

OTHER STUDIES

World Plastic Pipe

World plastic pipe demand is forecast to increase 7.3 percent annually through 2015. More than two-thirds of all gains will be attributable to the Asia/Pacific region, although the North American market will grow at the same pace as plastic pipe sales in the US recover rapidly. HDPE and smaller-volume plastic pipe will outpace PVC. This study analyzes the 15.8 million metric ton world plastic pipe industry, with forecasts for 2015 and 2020 by resin, world region and for 39 countries. The study also evaluates company market share and profiles industry participants.

#2748 May 2011 \$6100

Large Diameter Pipe

US demand for large diameter pipe will rise 6.2 percent per year through 2015. The storm and sanitary sewer market will remain the leading outlet, while water transmission and drainage pipe will be the fastest growing market. Ductile iron, concrete and HDPE pipe will be the fastest growing material types. This study analyzes the \$6.1 billion US large diameter pipe industry, with forecasts for 2015 and 2020 by market and material. The study also considers market environment factors, evaluates company market share and profiles industry players.

#2745 April 2011 \$4900

Geosynthetics

US demand for geosynthetics is projected to advance 6.8 percent annually through 2015. Nonwoven and woven/knit geotextiles will remain the dominant segment and offer good growth prospects, driven by construction and transportation infrastructure markets. Geonets will achieve the fastest gains from a much smaller base. This study analyzes the 904 million square yard US geosynthetics industry, with forecasts for 2015 and 2020 by product, market and region. The study also evaluates company market share and profiles industry players.

#2744 May 2011 \$4900

Precast Concrete Products

US demand for precast concrete products is forecast to rise 6.1 percent annually through 2015. Residential building will be the fastest growing market, led by foundations, basement walls and floors. Architectural components will be the fastest growing products, spurred by decorative facades, door and window surrounds and siding. This study analyzes the \$8.4 billion US precast concrete products industry, with forecasts for 2015 and 2020 by product, market and region. The study also evaluates company market share and profiles 34 industry competitors.

#2746 March 2011 \$4800

Water & Wastewater Pipe

Demand for water and wastewater pipe in the US is expected to rise 5.8 percent annually through 2014. Copper pipe will be the fastest growing product while plastic pipe remains dominant. Building construction will be the fastest growing market, with potable water applications leading gains. This study analyzes the \$14.8 billion US water and wastewater pipe industry, with forecasts for 2014 and 2019 by market, application and product. It also evaluates company market share and profiles industry players.

#2634 June 2010 \$4700

About The Freedonia Group

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States, the emerging China market, and other world markets. Industries analyzed by Freedonia include:

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