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# Plastic & Competitive Pipe

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US Industry Study with Forecasts for **2013 & 2018**

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*Stimulants to US pipe demand include renewed activity in the construction sector, the growing obsolescence of sewer and drainage systems, and needs to upgrade municipal water systems.*

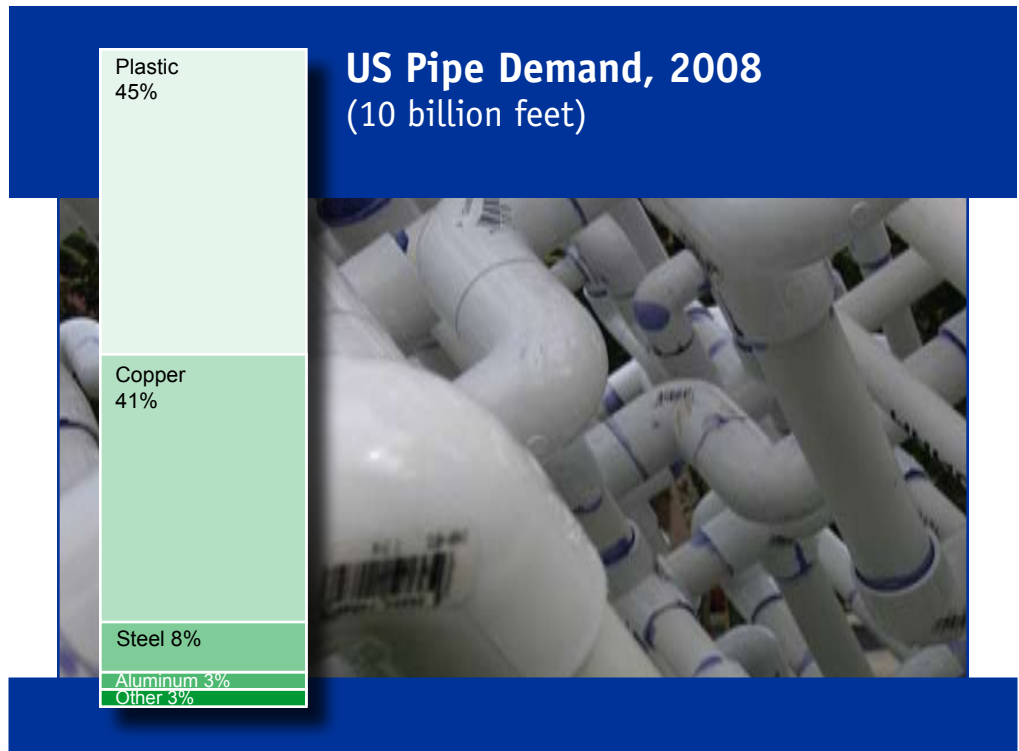
## US demand to reach 11.1 billion feet in 2013

Despite a weak current construction environment, pipe demand is expected to turn around and grow 2.0 percent annually to 11.1 billion feet in 2013. Stimulants include renewed activity in the construction sector, the growing obsolescence of sewer and drainage systems, and needs to upgrade municipal water systems.

## Plastic pipe to offer best growth opportunities

Plastic pipe will advance at the fastest pace through 2013. Polyvinyl chloride (PVC) pipe will remain dominant and be driven by improved joining technologies and resins such as molecularly oriented PVC. High density polyethylene pipe will exhibit the fastest plastic pipe growth based on opportunities in potable water and corrugated drain and sewer applications. Demand for reinforced thermosets and acrylonitrile-butadiene-styrene resins will expand at a below average pace due to mature markets and more specialized applications.

Copper pipe demand is forecast to grow 1.9 percent annually through 2013, paced by opportunities in service and distribution pipe. Demand for steel pipe will grow at a slower than average pace through 2013, with above average growth anticipated in gas and oil pipe. Continued advances will result from



expanding energy demands and depleted oil and natural gas fields. Aluminum pipe demand advances will result from opportunities in motor vehicle and refrigeration equipment uses. Demand for concrete pipe will rebound, driven by drain and storm sewer applications. More favorable raw material pricing will also contribute to pipe growth.

## Drain pipe to be fastest growing market

Structural, mechanical and miscellaneous uses, led by refrigeration tubing, will remain the leading pipe market through 2013, followed by potable water and conduit. Refrigeration tubing advances will be driven by rebounding

refrigeration equipment shipments, with further gains threatened by continued declines in commercial refrigeration manufacturing. Potable water pipe demand will expand as the building construction market recovers. Conduit demand will also experience renewed growth after ten years of declines. Fastest growth is anticipated for drain pipe in light of renewed construction activity and needs to renovate obsolete and overloaded pipe networks. Average growth is expected for natural gas and oil pipe, with advances benefitting from continued drilling activity, as well as the replacement and expansion of energy transmission pipelines.

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## Sample Text, Table & Chart

### PIPE MARKETS

#### Irrigation Pipe

Irrigation pipe is predicted to expand 2 percent through 2013 to 88 million feet. Expansion in intensive farming practices such as vegetable production (such as vegetable production) increases will be the primary driver. The use of less intensive irrigation practices and mulches are also increasing the use of irrigation water.

**SAMPLE  
TEXT**

Demand for plastic irrigation pipe is predicted to grow at an average rate to 88 million feet in 2013 based on plastic pipe's installation ease and flexibility. Aluminum pipe, due to its high strength and rigidity are required above-ground, movable irrigation platforms. Concrete pipe is used in larger diameter trunk line uses. Steel irrigation pipe is used to stabilize, and steel will remain the premier material where high strength and high pressure capabilities are required.

There are two primary types of irrigation systems: portable (mechanical move) and solid-set (pivot systems). Portable systems utilize overhead sprinklers fixed on a pipe strung between large wheels. These systems, commonly used on large corporate farms, may be a quarter mile in length. Aluminum pipe is frequently used in these applications due to its light weight and structural strength. Pivot systems use fixed pipe networks strung with rotating sprinklers which are capable of overlapping large areas. Drip or trickle irrigation is used in vegetable or other crop farming where deep cultivation is not required. Drip irrigation use is expanding because of its ability to conserve water and reduce soil erosion and ground/surface water contamination caused by the run-off of fertilizers and pesticides. Drip irrigation uses both plastic and porous rubber materials.

TABLE V-4

### HIGH DENSITY POLYETHYLENE PIPE DEMAND BY MARKET (million pounds)

Item	1998	2003	2008	2013	2018
Construction Expend (bil 2000\$)	769	836	765	875	990
lbs HDPE/000\$ expend	1.8	2.5	2.8	3.0	3.1
HDPE Pipe Demand	1,000	1,200	1,300	1,400	1,500
Drain & Sewer:					
Corrugated	500	600	650	700	750
Other Drain & Sewer	500	600	650	700	750
Gas & Oil Production:					
Gas	100	120	130	140	150
Oil	100	120	130	140	150
Natural Gas Distribution	100	120	130	140	150
Potable Water:					
Crosslinked HDPE	50	60	70	80	90
Other HDPE	50	60	70	80	90
Process Industries	100	120	130	140	150
Conduit	100	120	130	140	150
Drainage & Irrigation	100	120	130	140	150
Structural, Mechanical & Misc	100	120	130	140	150
% HDPE	4	5	6	7	8
Plastic Pipe Demand	7,200	8,200	9,000	9,800	10,500

**SAMPLE  
TABLE**

CHART VI-1

### PLASTIC PIPE INDUSTRY MARKET SHARE, 2008 (\$9.3 billion)\*



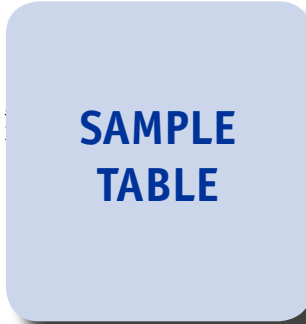
**SAMPLE  
CHART**

\* market share figures include resins, additives & processing

## Sample Profile, Table & Forecast

**TABLE IV-2**  
**PIPE DEMAND BY MATERIAL IN POUNDS**  
(million pounds)

Item	1998	2003	2008	2013	2018
Gross Domestic Product (bil 2000\$)					100
feet pipe/000\$ GDP					1.7
Total Pipe Demand					1.5
Concrete					1.0
Steel					1.0
Plastic					1.0
Cast Iron					1.0
Copper					1.0
Aluminum					1.0
Clay					1.5



**COMPANY PROFILES**

**Cambridge-Lee Industries Incorporated**  
 86 Tube Drive  
 Reading, PA 19605  
 610-926-4141  
 http://www.ca

Annual Sales:  
 Employment:  
 Key Products:

**SAMPLE PROFILE**

Cambridge-Lee Industries Incorporated manufactures pipe, tubing and wire and distribution of various metal products, including metal bar, sheet, rod and plate; metalworking machinery; and copper tube and fittings. The Company operates through six divisions: Standard Products, Commercial Products, Industrial Metals, Machinery, United Copper Industries and European. Cambridge-Lee is a wholly owned subsidiary of Industrias Unidas SA de CV (Mexico City, Mexico), a private holding company.

The Company participates in the US plastic and competitive pipe industry through the Standard Products, Commercial Products and Industrial Metals divisions. Through the Standard Products division, the Company makes a variety of copper tubing for the plumbing, medical, refrigeration, air conditioning, fire protection and commercial markets. Specific products include type K, type M and type L water tubes; ACR tube; OXY/MED tube; DWV tube; refrigeration tube; and linesets. Of the Company's water tubes, type K tubes are available in both hard and soft tempers. These green-colored tubes are manufactured in straight lengths of 10 or 20 feet, and coil lengths of 60 or 100 feet. Cambridge-Lee's ACR tube is a cleaned, capped and degreased tube designed for

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"Drainage and irrigation applications for concrete pipe are forecast to grow 3.0 per annum to 3.9 billion feet, reflecting growing street and highway expenditures and needs for durable, strong and cost effective materials. Competition from corrugated steel and high density polyethylene will limit further concrete culvert advances. Irrigation pipe will remain a smaller application and grow at a slightly slower pace due to ..."

--Section IV, pg. 117



**OTHER STUDIES**

**Construction Outlook in China**

This study analyzes the construction sector in China. It presents historical demand data (1998, 2003 and 2008) and forecasts for 2013 and 2018 by type of construction (residential building, nonresidential building, nonbuilding), market (new construction, additions and alterations, maintenance and repair) and Chinese geographic region. The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry participants.

#2507 ..... 05/2009..... \$5200

**Large Diameter Pipe in China**

Demand for large diameter pipe in China will grow 9% annually through 2012, driven by continued increases in spending on physical infrastructure and new building construction. Pipe used in sanitary sewer, drainage, storm sewer and natural gas transportation applications will see the fastest growth. This study analyzes the 57.1 million meter large diameter pipe industry in China, with forecasts for 2012 and 2017 by material type, market and geographic region. It also evaluates market share and profiles industry participants.

#2400 ..... 10/2008..... \$5100

**World Plastic Pipe**

Global demand for plastic pipe will grow 4.6% annually through 2012. Developed countries will remain the dominant market while developing countries in Eastern Europe, Asia and the Africa/Mideast region outpace the global average. PVC will stay the largest pipe resin in use, while HDPE and fiberglass show notable growth. This study analyzes the 6.5 billion meter world plastic pipe industry, with forecasts for 2012 and 2017 by resin, world region and for 24 countries. It also evaluates market share and profiles industry players.

#2411 ..... 12/2008..... \$5700

**Plumbing in China**

Demand for plumbing products in China will grow 9.9% annually through 2012. Ongoing trends toward multiple bathrooms and larger kitchens and further penetration of bathtubs and showers in Chinese homes will help fuel gains. The residential market will remain dominant while the nonresidential market will grow the fastest. This study analyzes the 75.6 billion yuan plumbing product industry, with forecasts for 2012 and 2017 by material, product, market and region. It also details market share and profiles industry players.

#2410 ..... 11/2008..... \$5100

**Large Diameter Pipe**

US large diameter pipe demand will reach \$10 billion in 2012, driven by a rebound in construction and expansions and upgrades for an aging pipe infrastructure. Concrete pipe will remain dominant while plastic pipe grows the fastest. Storm sewers will continue as the leading market due to widespread drainage uses and expanded road construction. This study analyzes the US large diameter pipe industry, with forecasts for 2012 and 2017 by market and material. It also evaluates market share and profiles industry players.

#2401 ..... 09/2008..... \$4600

**About The Freedonia Group**

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