#### B)

# NEW Industry Study to 2009 & 2014



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# Gypsum Products in North America

Study # 1953 September 2005 \$4200

# North American market to reach \$4.9 billion in 2009

Demand for gypsum products in North America is forecast to advance 1.7 percent per year through 2009 to 50 million metric tons. Gains as measured in dollar value will rise 3.7 percent per year to \$4.9 billion, an acceleration from the 1999-2004 period that saw gypsum board prices fall significantly. Growth in gypsum product value will be stimulated by a recovery in gypsum board pricing over late-1990s levels.

Prospects for the North American gypsum industry are closely tied to the fortunes of the construction industry. The residential market plays a particularly important role, responsible for 60 percent of demand for gypsum products. Accordingly, the weak outlook through 2009 for the construction of new homes in the US and Canada will result in a slowdown in demand for gypsum and gypsum products. This deceleration will be offset somewhat by an upswing in new nonresidential construction spending.

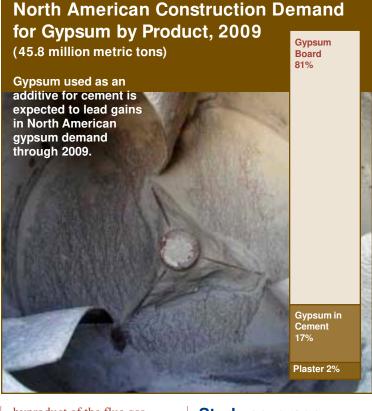
## Gypsum as a cement additive to lead gains

Demand for gypsum board -- the dominant gypsum product

sold in North America -- is expected to advance 1.5 percent per year to 41 billion square feet by 2009. Other gypsum products include building and industrial plasters, gypsum used as a cement additive, agricultural gypsum and gypsum fillers. Gypsum used as an additive for cement is expected to lead gains, advancing more than three percent per year through 2009 to 8 million metric tons. Growth in cement markets will be supported by a rebound in nonresidential construction in the US, as well as by continued efforts to build infrastructure in Mexico.

# Synthetic gypsum to continue gaining market share

Manufacturers of gypsum products continue to rely increasingly on synthetic gypsum -- as opposed to mined gypsum -- as a raw material. In 1994, synthetic gypsum accounted for only six percent of all gypsum consumed in North America. By 2004, synthetic gypsum had increased to 29 percent, and by 2009 the share of synthetic gypsum is expected to rise to 38 percent. Most of the synthetic gypsum used in North America is supplied by coal-burning utilities that create the gypsum as a



byproduct of the flue gas desulfurization (FGD) process. The use of FGD gypsum is particularly common in the gypsum board segment, with virtually all gypsum board plants built since 1998 using synthetic gypsum to fulfill all or part of their raw material requirements. Since crude gypsum is a bulky material that is difficult and expensive to transport, new wallboard plants are typically built in proximity to gypsumsupplying power plants.

#### Study coverage

Details on these and other key findings are available in the new 276-page Freedonia industry study, Gypsum Products in North America, priced at \$4200. The study presents historical demand data through 2004 and forecasts to 2009 and 2014 by country (United States, Canada, Mexico), product and market. The study also considers market environment indicators, evaluates company market share and profiles 36 leading industry participants.

### **Gypsum Products in North America**

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- exports
- + imports
- + synthetic gypsum

Crude Gypsum Consumption

\$/metric ton Crude Gypsum Consump (mil US\$)

Source: The Freedonia Group, Inc.

Demand forecasts for each product type provided in volume (metric tons)

#### **COMPANY PROFILES**

Presented for 36 players in the North American gypsum products industry

#### **MARKETS**

#### **Nonbuilding Construction**

Demand for gypsum products in North American nonbuilding con-

struction is projected to inci metric tons, valued at US\$1 from the 1999-2004 period the fastest growing end uses will be supported by ongoir Mexico, as well as by effor US and Canada. Nonbuildi percent of total construction,

#### SAM PLE PAGE

Explanations that support each table's data and projections

vement ts among Growth tructure in es in the only nine rther

reduced to three percent as measured in dollar value as a result of the lower cost of the cement-grade gypsum products that dominate demand in nonbuilding construction markets.

The North American nonbuilding construction market for gypsum is primarily made up of roadways, bridges and public utility structures such as pipelines, communication towers, railroads and power generating facilities. Nonbuilding construction also includes items such as military facilities, sewer systems, and parks and playgrounds. Unlike the other construction markets, nonbuilding demand for gypsum is highly dependent on government funding for infrastructure development. As a result, growth in this segment is closely tied to economic conditions in each particular country.

The nonbuilding market for gypsum also differs from other construction markets in that demand for gypsum products in nonbuilding applications is dominated by gypsum used in the production of cement, which represented just

nder four-fifths of total demand in 2004. Gypsum board accounts for the jority of the remainder of demand, as well as limited amounts of building and ustrial plasters. The principal nonbuilding construction applications for these ducts consist of the fabrication of temporary building structures erected at istruction sites.

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### **TABLE V-5**

#### NORTH AMERICA TYPE X GYPSUM BOARD DEMAND (million square feet)

1994 1999 2004 2009 2014

Total Gypsum Board Demand

Type X Gypsum Board Demand United States Canada Mexico

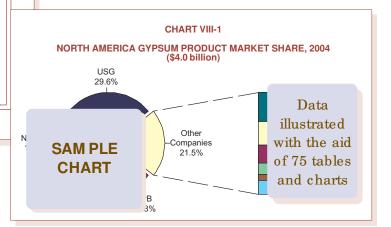
metric tons/000 sq ft Type X Board (000 metric tons)

Type X Gypsum Board (mil US\$)

Source: The Freedonia Group, Inc.

#### SAM PLE TABLE

Historical data for 1994, 1999 and 2004, as well as Freedonia forecasts through the years 2009 and 2014



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# 1979 ...... 91/2006 ......\$4800

#### **World Asphalt**

Global asphalt demand through 2009 will improve on recent performance based on a recovery in construction activity in Latin America, Western Europe and Japan, as well as on continued strong growth in China and India. Asphalt emulsions and polymer modified asphalts will grow the fastest. The study analyzes the 102 million metric ton world asphalt industry to 2009 and 2014 by product and for 6 world regional and 20 major national markets. It also evaluates market share and profiles major producers.

#### Plastic & Competitive Pipe

US pipe demand will reach 16.4 billion feet in 2009 as a result of continued highway/street construction, stricter water management laws and needs to replace or expand water systems. Plastic pipe will lead gains followed by copper, aluminum and concrete. Resin and processing improvements will further enhance plastic's advantages. This study analyzes the 14.5 billion foot US pipe industry to 2009 and 2014 by material, type and application. It also gives plastic pipe market share and profiles major pipe producers.

 $\#\ 1959 \ldots 07/2005 \ldots \$4300$ 

#### **World Cement & Concrete Additives**

World cement and concrete additive demand will grow 6.8% annually through 2008, driven by an improving construction outlook and increased additive loadings for higher performance concrete. Developing countries, primarily in Asia, will register the fastest market gains. This study analyzes the \$4.9 billion global cement and concrete additive industry to 2008 and 2013 by product, market, world region and for 20 countries. The study also evaluates company market share and profiles leading competitors.

# 1898 ...... \$5100

#### **World Cement**

Global demand for cement will grow 4.8% annually through 2008, driven by robust construction activity in China and other developing parts of Asia as well as in Eastern Europe and Latin America. Non-blended pozzolanic, masonry and aluminous cement will grow the fastest. This study analyzes the US\$125 billion world cement industry to 2008 and 2013 by type, market, geographic region and for 43 countries. It also presents macroeconomic indicators, details market share and profiles leading industry competitors.

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