World Refractories

Industry Study with Forecasts for 2016 & 2021

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World demand to rise 3.4% annually through 2016

Global refractory demand is projected to expand at a 3.4 percent annual rate through 2016 to 46.3 million metric tons, an improvement over 2006-2011 market performance. Product sales will climb 5.3 percent annually in value terms to $46.5 billion in 2016, not as strong as gains registered in recent years because of a moderation in raw material costs and refractory prices. Increases in refractory demand will be stimulated by an acceleration in construction and other fixed investment activity as economic conditions continue to improve, leading to stepped up output of steel, aluminum, cement, and other refractory-made goods. A pickup in personal consumption expenditures will also result in higher demand for everything from glass containers to motor vehicles, contributing to growth in refractory sales as industry production levels rise. Greater use of refractories in chemicals manufacturing, incinerators, and a variety of other small volume markets will also help bolster overall product sales.

Developing areas to see fastest growth in sales

Refractory sales will expand most quickly in developing areas, reflecting an ongoing shift in metals and other heavy industry production to countries with low cost structures. The Asia/Pacific region, in particular, will post the largest tonnage increases, followed by the Africa/Mideast region, Central and South America, and Eastern Europe. China alone will account for more than seven-tenths of all refractory volume gains between 2011 and 2016, due both to additional growth in its huge steel, cement, and other heavy manufacturing industries and to the use of less sophisticated production methods in steelmaking and other important markets than those utilized in economically advanced nations, resulting in greater refractory use in per unit of output terms.

The volume of refractories consumed will also rise in the US, Western Europe, and Japan following an extended period of decline, as economic conditions strengthen in these areas and output of ferrous metals and other refractory-using products rebounds. Output gains in these areas are more likely to result in higher refractory demand because the manufacturing techniques utilized are already so efficient that it will be much more difficult to reduce refractory consumption on a per unit output basis than in less developed countries. Due to their greater use of more costly, high quality products, the US, Western Europe, and Japan will account for a somewhat larger share of the world refractory market total in dollar terms (19 percent) in 2016 than they will in tonnage (14 percent).

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Asia/Pacific

China: Refractory Outlook & Suppliers

Sales of refractories in China are expected to increase annually through 2016 to 2012 to 2016, moderating from the 2006-2011 period but outperforming global demand. The nation will continue to industrialize and personal income levels will climb further, stimulating growth in consumption of aluminum, cement, glass, iron, and steel, much of which will be made locally. However, market gains will be restrained by the rising efficiency of refractory use. In value terms, refractory sales will grow 6.6 percent per year to $25.0 billion in 2016. Price increases will not be as strong as those posted during the 2006-2011 period, when they were driven up by robust refractory demand and high world raw material costs.

The iron and steel market, which accounted for 62 percent of the 2011 Chinese refractory sales total, will continue to drive growth in overall refractory demand, with sales to ferrous metal manufacturers forecast to expand faster than those to any other major market. However, steelmakers are becoming much more efficient in their use of refractories. While China will continue to use more refractories per ton of steel produced than almost any other country, the gap will narrow through 2016.

Suppliers of refractories used in the manufacture of aluminum, cement, copper, and glass will benefit from climbing production of these goods through 2016. However, as in ferrous metal manufacturing, producers of nonferrous metal and nonmetallic mineral refractories are becoming more efficient in their use of refractories, which will limit future sales increases. Manufacturers will achieve additional gains by utilizing higher quality production equipment, more efficient manufacturing methods, and better performing refractories, providing new sales opportunities for high end refractory suppliers.
Dyson Group plc
Totley Works
Baslow Road
Sheffield S17 3BL
United Kingdom
44-114-235-5300
http://www.dyson-group.com

Annual Revenues:  $40 million (estimated)
Employment:  150 (estimated)
Key Products:  zirconia based ceramic refractories

Dyson Group is involved in the development and commercialization of high-performance materials used in demanding environments. The privately held company operates through two subsidiaries, Dyson Technical Ceramics Limited and Builders Centre Sheffield Limited, both of which are headquartered in the United Kingdom (UK).

The Company is involved in the world refractory industry through the Dyson Technical Ceramics subsidiary, which did business as Dyson Thermal Technologies prior to October 2012. Dyson Technical Ceramics manufactures zirconia based refractory ceramics, as well as tin oxide electrodes. Specific refractory items available from the company comprise atomizing nozzles, fire bricks, and zirconia crucibles. Atomizing nozzles are utilized in the powder metallurgy industry for the casting and atomization of ferrous and nonferrous molten metal. Among Dyson Technical Ceramics’ atomizing nozzles are ZIRCATOM OZA yttria-stabilized zirconia types, ZIRCATOM MCA ceria- and magnesia-stabilized zirconia nozzles, and ZIRCATOM ZSA zircon nozzles with zirconia enhancements.

“Shipments of refractories from producers in China are projected to climb 6.7 percent per annum to $27.3 billion in 2016, about the same as domestic demand. Since many refractory buyers rely on local sources of supply, many of the same factors fueling growth in Chinese product demand will help boost industry output. Recovering export markets -- especially in Japan, the US, and Western Europe -- will lead to an increase in overseas industry sales and a widening trade surplus, further bolstering domestic refractory production.”

--Section VI, pg. 147
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OTHER STUDIES

Machine Tools in China
Demand for machine tools in China is forecast to increase 9.2 percent per annum to ¥600 billion in 2017. Both metal cutting and forming machine tools and machine tool accessories will grow at a similarly strong pace. Transportation equipment and electrical/electronic equipment manufacturing will be the fastest growing markets. This study analyzes the ¥386 billion machine tool industry in China, with forecasts for 2017 and 2022 by product, market, and region. The study also evaluates company market share and profiles industry participants.

Advanced Ceramics
Demand for advanced ceramics in the US is forecast to increase 5.1 percent annually to $13.6 billion in 2017. Medical products will be the fastest growing market, driven by applications such as dental implants and prosthetic components. Ceramic matrix composites will be the fastest growing class of products. This study analyzes the $10.6 billion US advanced ceramics industry, with forecasts for 2017 and 2022 by material, class, process and market. The study also evaluates company market share and profiles industry players.

World Cement
World sales for cement are forecast to expand more than five percent annually through 2017 to over 4.7 billion metric tons. Demand will rebound sharply in North America and Western Europe, while growth in China will decelerate yet still achieve impressive gains. Blended cement will account for over three-quarters of all new demand. This study analyzes the 3.7 billion metric ton world cement industry, with forecasts for 2017 and 2022 by type, market, world region, and for 45 countries. The study also evaluates company market share and profiles industry participants.

Bearings
Bearing demand in the US will increase 4.4 percent per year to $12.9 billion in 2017, a notable improvement from the 2007-2012 period. Roller bearing demand is expected to continue to outpace other product types, supported by motor vehicle, machinery and wind turbine markets. Ball bearing consumption will also post healthy gains, supported by increasing manufacturing output. This study analyzes the $10.4 billion US bearing industry, with forecasts for 2017 and 2022 by product and market. The study also evaluates company market share and profiles industry players.

World Flat Glass
World demand for flat glass is forecast to rise 7.1 percent per year through 2016 to 9.2 billion square meters. The dominant Asia/Pacific region will continue to post the fastest gains. Fabricated flat glass demand will benefit from rapid growth in sales of energy efficient products such as solar control, insulation and low-E glass. This study analyzes the 6.6 billion square meter world flat glass industry, with forecasts for 2016 and 2021 by product, market, world region and for 21 countries. The study also evaluates company market share and profiles industry players.

About The Freedonia Group

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