Asia/Pacific to register most rapid growth through 2020

The Asia/Pacific region was the largest regional market for flat glass in 2015, accounting for more than half of global demand in value terms. The region is also expected to exhibit the fastest gains through 2020, benefiting from the presence of the five fastest growing national markets for flat glass worldwide: India, Indonesia, China, Thailand, and Vietnam. Within the Asia/Pacific region, China is the dominant flat glass consumer, representing 64 percent of the regional total on a value basis in 2015.

Motor vehicle production slows in North America

In North America, demand is expected to decelerate from gains between 2010 and 2015 as motor vehicle production slows dramatically. Growth in Western Europe will be similar to that seen during the 2010-2015 period as building construction spending rebounds. Demand in Eastern Europe will outpace that in Western Europe, largely due to accelerations in building construction spending and motor vehicle production.

Glass-consuming products shift manufacturing output

Gains in demand for flat glass in North America and Europe will be constrained by the shifting dynamics of global manufacturing, as producers of a wide variety of glass-consuming products are expected to increase operations in developing regions. As a result, increased manufacturing output and investment in commercial facilities will allow demand for flat glass in Central and South America and the Africa/Mideast region to grow faster than in North America and Europe through 2020.

Solar energy provides opportunity

The architectural market will remain the largest source of demand for flat glass in 2020. However, stronger growth is expected in other markets, stimulated by products such as electronic displays. Demand for flat glass in the solar energy market should be particularly fast as many countries increase investment in renewable energy. Solar energy applications accounted for 200 million square meters of flat glass consumption in 2015, a figure that is expected to triple by 2020.

Study coverage

This study analyzes the world flat glass market. It presents historical data (2005, 2010, 2015) plus forecasts for 2020 and 2025 for supply and demand, as well as demand by market and float glass production capacity by company, in 6 regions and 21 major countries. The study also assesses key market environment factors, examines the industry structure and evaluates company market share data.
Overview
Cht Flat Glass Industry Overview
1 World Flat Glass Supply & Demand
2 World Float Glass Production Capacity by Region, Year-End 2015
3 World Flat Glass Production by Region
4 World Flat Glass Net Exports by Region
5 World Flat Glass Demand by Region

Demand by Market
1 World Flat Glass Demand by Market
2 World Architectural Market for Flat Glass
3 World Nonresidential Construction Market for Flat Glass
4 World Residential Construction Market for Flat Glass
5 World Motor Vehicle Market for Flat Glass
6 World OEM Motor Vehicle Market for Flat Glass
7 World Motor Vehicle Aftermarket for Flat Glass
8 World Other Markets for Flat Glass

Cht World Demand for Flat Glass in Solar Energy, 2010-2020
Cht Average Cost of Solar Modules, 2006-2016

Tables for each region & country:
Flat Glass Supply & Demand
Flat Glass Demand by Market
Float Glass Production Capacity by Company, Year-End 2015
(for all regions, selected countries)

Industry Structure
1 World Flat Glass Sales by Company, 2015
Cht World Flat Glass Market Share, 2015
2 World Float Glass Production Capacity by Company, Year-End 2015
3 Selected Acquisitions & Divestitures
4 Selected Cooperative Agreements

Supplier & Capacity
Australia
China
India
Indonesia
Japan
South Korea
Thailand
Vietnam
Other Asia/Pacific

Other Regions
Central & South America
Flat Glass Supply & Demand
Flat Glass Demand by Market
Suppliers & Capacity
Brazil
Other Central & South America
Eastern Europe
Flat Glass Supply & Demand
Flat Glass Demand by Market
Suppliers & Capacity
Poland
Russia
Other Eastern Europe
Africa/Mideast
Flat Glass Supply & Demand
Flat Glass Demand by Market
Suppliers & Capacity
Iran
Turkey
Other Africa/Mideast

Industry Structure
Industry Structure & Market Share
World Float Glass Capacity by Company
Acquisitions, Divestitures, & Industry Restructuring
Distribution
Marketing Trends & Production Technology
Competitive Strategies
Cooperative Agreements

Executive Summary
1 Summary Table

North America
Flat Glass Supply & Demand
Flat Glass Demand by Market
Suppliers & Capacity
United States
Canada
Mexico

Western Europe
Flat Glass Supply & Demand
Flat Glass Demand by Market
Suppliers & Capacity
France
Germany
Italy
Spain
United Kingdom
Other Western Europe

Asia/Pacific
Flat Glass Supply & Demand
Flat Glass Demand by Market

TABLES & CHARTS
Executive Summary
1 Summary Table
China: Flat Glass Demand by Market

Through 2020, demand for fabricated flat glass in China is projected to advance 8.2% per year to $38.9 billion. China will continue to be among the fastest growing national markets for flat glass worldwide, although the pace of gains will slow considerably relative to the 2010-2015 period. Some of the slowdown in demand for flat glass in value terms will be attributable to a more modest outlook for price growth. Historically, prices for flat glass in China have been well below the global average, reflecting the large amounts of lower-quality float glass produced in the country along with low penetration rates for value-added products. In recent years, as the average quality of flat glass produced in China rose, prices advanced to levels more comparable to those seen in other developing countries. As a result, the extremely rapid price gains seen in China’s flat glass market between 2005 and 2015 are not expected to continue.

The architectural market held the largest share of flat glass demand in China in 2015, and will continue to do so going forward despite projected deceleration in demand through 2020. Building construction spending is expected to slow from the rapid pace seen between 2010 and 2015, limiting demand gains. Increasing penetration of value-added products such as insulating glass, safety glass, and solar control glass will help contribute to growth in demand for fabricated flat glass in the architectural market.

Demand for fabricated flat glass in the motor vehicle market in China will benefit from continued strong gains in motor vehicle production, bolstering usage of flat glass in OEM motor vehicle applications. China is expected to increase its share of world motor vehicle output from 26 percent in 2015 to 30 percent in 2020. Demand for flat glass in the motor vehicle aftermarket will also exhibit rapid growth as rising

TABLE VII-5

<table>
<thead>
<tr>
<th>Item</th>
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<th>2020</th>
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<td>Bldg Construction Expenditures (bil 2014$)</td>
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<td>$ architectural glass/000 bldg constr</td>
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<td>Motor Vehicle Production (000 units)</td>
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<td>$ OEM MV glass/motor vehicle</td>
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<td>Manufacturing Value Added (bil 2014$)</td>
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<td>$ other flat glass/0000$ MVA</td>
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<td>Fabricated Flat Glass Demand</td>
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<td>Architectural</td>
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<td>Motor Vehicle:</td>
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<td>OEM</td>
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<td>Aftermarket</td>
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<td>Other Markets</td>
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<td>$ fabricated/square meter</td>
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<td>Flat Glass Demand (mil sq meters)</td>
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Source: The Freedonia Group

TABLE VII-4

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<tr>
<th>Item</th>
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<td>Population (million persons)</td>
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<td>per capita GDP</td>
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<td>Gross Domestic Product (bil 2014$)</td>
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<td>square meters flat glass/capita</td>
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<td>square meters flat glass/mil $ GDP</td>
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<td>Flat Glass Demand (mil sq meters)</td>
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<td>net exports</td>
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<td>Flat Glass Production (mil sq meters)</td>
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<td>square meters/metric ton</td>
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<td>Flat Glass Production (000 metric tons)</td>
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Source: The Freedonia Group

This study can help you:

• Determine your market & sales potential
• Learn more about industry competitors
• Assess new products & technologies
• Identify firms to merge with or acquire
• Complement your research & planning
• Gather data for presentations
• Confirm your own internal data
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