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# Insulation in China

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Industry Study with Forecasts for **2016 & 2021**

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### INDUSTRY STRUCTURE

1 Insulation Market Share in China, 2011 .157

*Continued growth in building construction markets and industrial and HVAC equipment markets for insulation in China will spur nearly double-digit annual gains in insulation demand.*

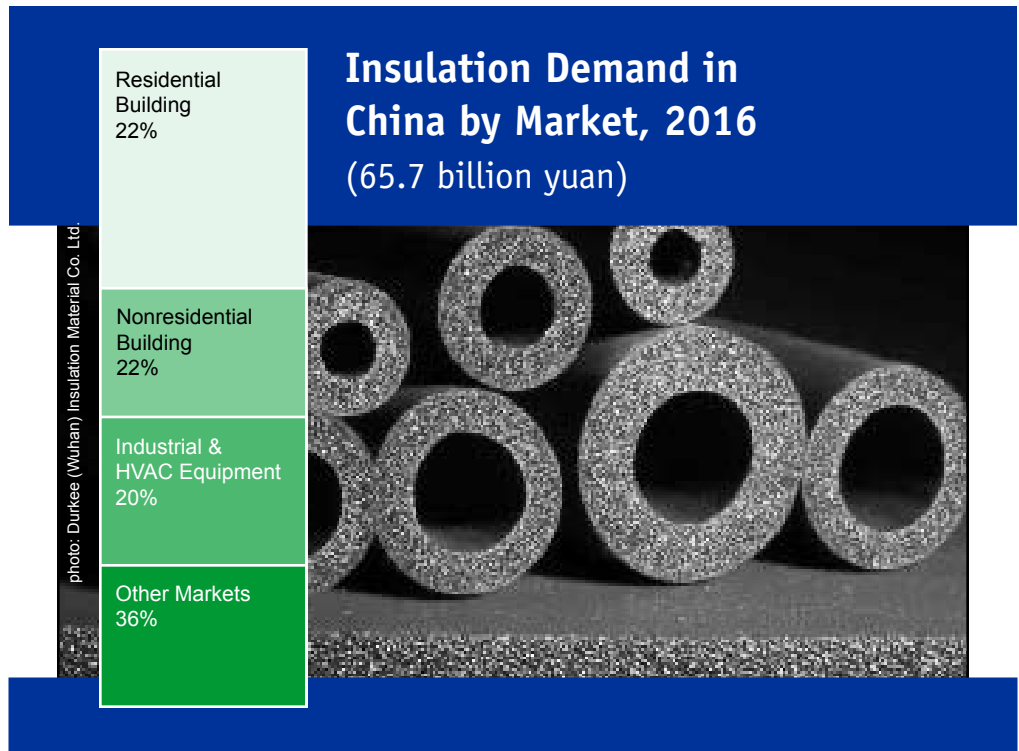
## Demand to grow 9.4% per annum through 2016

Demand for insulation materials in China is projected to grow 9.4 percent per year through 2016 to ¥65.7 billion. Continued increases in building construction and output in the manufacturing sector will drive advances. Further growth will be spurred by changes in building codes to reduce energy consumption in building applications as well as efforts to reduce energy use in manufacturing processes.

## Building construction markets to post double-digit gains through 2016

Building construction markets will continue to account for more than two-fifths of China's total insulation demand. The residential and nonresidential segments will each expand at 10 percent per year through 2016, supported by healthy growth in building construction. New multifamily housing starts, driven in large part by China's continuing urbanization, and strong fixed investment activity in office, commercial, institutional, and other highly insulated structures such as power and petrochemical plants will spur market gains for insulation materials. In addition, improvement and replacement of insulation in existing housing in order to raise energy efficiency, as well as to enhance comfort, will continue to further market gains.

Demand for insulation in the industrial and HVAC equipment market will trail overall growth through 2016, although strong gains in investment in industrial and HVAC equipment as a result of



continued industrialization in China will boost demand. Efforts to reduce energy consumption and costs in these applications -- by both manufacturers and the government -- will also spur demand gains in this market. Demand in other key markets will be driven by rapidly expanding output of insulation-containing appliances and transportation equipment.

## Foamed plastics to remain leading material by value

In value terms, foamed plastics will continue to dominate the Chinese insulation market, accounting for more than four-fifths of demand in 2016. Foamed plastics' high insulating value, moisture resistance, and ease of installation will continue to support demand gains going forward. However, demand

for fiberglass and mineral wool will post faster growth through the forecast period, benefiting from their better fire retardance than that of foamed plastics.

## Northwest, Southwest regions to see fastest gains

Regional demand for insulation materials varies substantially due to differences in demographics, economic activity, and climate. With 29 percent of China's population and 37 percent of the country's GDP in 2011, the Central-East is the largest regional market for insulation materials with 45 percent of national demand. The Northwest and Southwest will post the fastest growth in insulation demand through 2016, each advancing at 10 percent annually.

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## Sample Text, Table & Chart

### PRODUCTS

#### Product Forms

Fiberglass insulation is offered in several different types depending on the end use and energy efficiency requirements of a particular installation. Product types include batts, blankets, loose fill insulation, rigid boards, and other forms. In weight terms, boards account for the largest share of fiberglass demand in 2011, with 46 percent of total demand. Demand for rigid fiberglass board insulation products is projected to increase to 370,000 metric tons in 2016. Demand for fiberglass insulation in new construction applications, especially in residential buildings, and in industrial buildings, is projected to increase. Fiberglass insulation is primarily installed in residential buildings, and in HVAC equipment. Fiberglass insulation is used for thermal and acoustical insulation in roofs and interior walls, and in combination with mineral wool.

**SAMPLE  
TEXT**

Blanket insulation is produced in both rolls and batts (specific lengths) in various densities, R-values, and widths. Batts are available unfaced or with an attached vapor retarder, such as paper, foil, or polyethylene, on one side. These products are used as insulation in industrial structures, such as petrochemical and refinery facilities, HVAC pipes, motor vehicles, ships, and homes. Demand for fiberglass batts and blankets is projected to rise 1.5 percent per year to 370,000 metric tons in 2016. Gains will benefit from increasing expenditures on nonresidential building, investment in the construction sector, and output of durable manufactured goods.

Other product forms include loose fill fibers, pipes, and panels, which are widely used in construction, industrial equipment, and appliance applications. Loose fill fibers are packed in bags for application by pneumatic blowers, while spraying is an alternative application method. This segment will see the fastest growth through 2021, with increasing applications in construction and other sectors.

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TABLE IV-2

### FOAMED PLASTIC INSULATION DEMAND IN CHINA BY MARKET (thousand metric tons)

Item	2001	2006	2011	2016	2021
Total Insulation Demand	1,000	1,500	2,000	2,500	3,000
% foamed plastic	10	15	20	25	30
Foamed Plastic Insulation Demand	100	225	400	625	900
Residential Building	50	112.5	200	312.5	450
Nonresidential Building	50	112.5	200	312.5	450
Industrial & HVAC Equipment	0	0	0	0	0
Other	0	0	0	0	0
¥/kg	4	4	4	4	4
Foamed Plastic Insul Demand (mil ¥)	400	900	1,600	2,500	3,600

**SAMPLE  
TABLE**

CHART VI-1

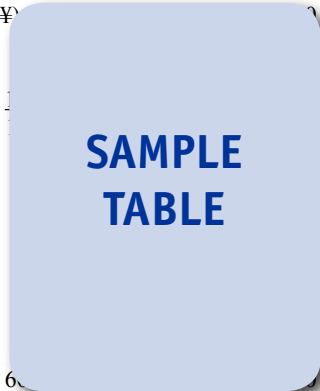
### INSULATION DEMAND IN CHINA BY REGION, 2011 (41.9 billion yuan)



## Sample Profile, Table & Forecast

**TABLE V-3**  
**RESIDENTIAL BUILDING MARKET FOR INSULATION**  
**IN CHINA BY MATERIAL**  
 (million yuan)

Item	2001	2006	2011	2016	2021
Residential Building Construction (bil ¥)					
¥ insulation/000¥ construction					
Residential Bldg Insulation Demand					
Foamed Plastics					
Polystyrene					
Rigid Urethane					
Other					
Fiberglass					
Mineral Wool					
Other					
% residential building					
Total Insulation Demand	60				



**COMPANY PROFILES**

**Chengdu HanJiang New Building Materials Company**  
 Qingbaijiang North New Economic Zone  
 No. 88 Fuxing Road  
 Chengdu, Sichuan 610005  
 China  
 86-28-85111111  
 http://www.hanjiang.com.cn

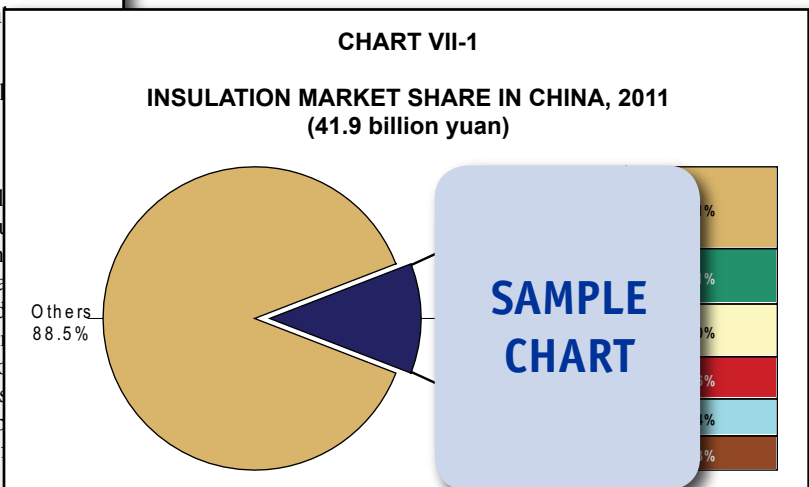
Annual Sales (million yuan) (estimated)  
 Employment (personnel)

Key Products: centrifugal glass wool and composite fiberglass wool.

Chengdu HanJiang New Building Materials manufactures glass wool insulation products. The Company is privately held.

The Company participates in the Chinese insulation market primarily through the manufacture of centrifugal glass wool insulation products, including centrifugal formaldehyde-free glass wool insulation, centrifugal glass wool board, centrifugal glass wool pipe, and centrifugal glass wool felt. Chengdu HanJiang New Building Materials' centrifugal formaldehyde-free glass wool insulation, sold under the U-T brand name, features thermal, acoustical, and fire-resistant properties for use in transportation applications, office buildings, classrooms, movie theaters, and other areas. The Company's centrifugal glass wool board, which is marketed under the JINGANG brand name, can be utilized in pipes, air conditioning systems, walls, partition walls, ceilings, and motor vehicles.

Centrifugal glass wool pipe insulation is engineered to resist the growth of mildew, mold, and bacteria. This insulation is suitable for use in interior and exterior applications. Chengdu HanJiang New Building





**OTHER STUDIES**

**Siding**

Demand for siding in the US is forecast to increase 7.1 percent annually to 103.5 million squares in 2018, valued at \$12.1 billion. Brick, concrete and stone siding will grow the fastest, driven by their durability and low maintenance, especially for new homes built in the South. Vinyl siding will remain dominant but will continue to lose market share. This study analyzes the 73.5 million square US siding industry, with forecasts for 2018 and 2023 by material, market and US region. The study also evaluates company market share and profiles industry participants.

#3144 ..... March 2014..... \$5300

**Insulation**

US demand for insulation is projected to advance 7.6 percent annually to \$10.3 billion in 2017. The residential market will see double-digit annual gains based on a strong rebound in housing starts. Fiberglass insulation will remain the market leader and grow the fastest, followed in growth rates by reflective/radiant and cellulose types. This study analyzes the \$7.1 billion US insulation industry, with forecasts for 2017 and 2022 by product, market and US region. The study also evaluates company market share and profiles industry players.

#3109 ..... November 2013 ..... \$5300

**Roofing**

US demand for roofing is projected to rise 3.5 percent annually to 268 million squares in 2017, valued at \$27.2 billion. Asphalt shingles will remain the dominant product and will offer the best growth opportunities, to be outpaced only by the much smaller segments of roofing tile and other roofing materials. The West will lead gains by region. This study analyzes the 225.6 million square US roofing industry, with forecasts for 2017 and 2022 by product, market and region. The study also evaluates company market share and profiles industry players.

#3082 ..... September 2013..... \$5300

**Green Building Materials**

US green building materials demand is forecast to increase 11 percent annually to \$86.6 billion in 2017. Permeable pavement and structural products (e.g., recycled concrete, FSC-certified lumber) will grow the fastest. Exterior products such as energy-efficient windows and green roofing will remain the largest segment. This study analyzes the \$51.8 billion US green building material industry, with forecasts for 2017 and 2022 by product, market and US region. The study also considers market environment factors and profiles industry participants.

#2995 ..... February 2013 ..... \$5100

**World Insulation**

Global insulation demand is forecast to rise 5.5 percent annually to 23.1 billion square meters of R-1 value in 2016. The Asia/Pacific region will remain the largest and fastest growing market, followed by North America. The best growth opportunities will be found in foamed plastic and fiberglass insulation. This study analyzes the 17.7 billion square meter global insulation industry, with forecasts for 2016 and 2021 by material, market, world region and for 21 major countries. The study also evaluates company market share and profiles industry players.

#2956 ..... October 2012 ..... \$6300

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