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Insulation

US Industry Study with Forecasts to 2010 & 2015

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767 Beta Drive

Cleveland, OH • 44143-2326 • USA

Toll Free US Tel: 800.927.5900 or +1 440.684.9600

Fax: +1 440.646.0484

E-mail: info@freedoniagroup.com

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US Industry Study with Forecasts to 2010 & 2015



Reflective insulation and radiant barriers will see the fastest growth (from a small base) as they find increasing use in metal buildings, pipe wrap, appliances and duct insulation to reduce energy costs.

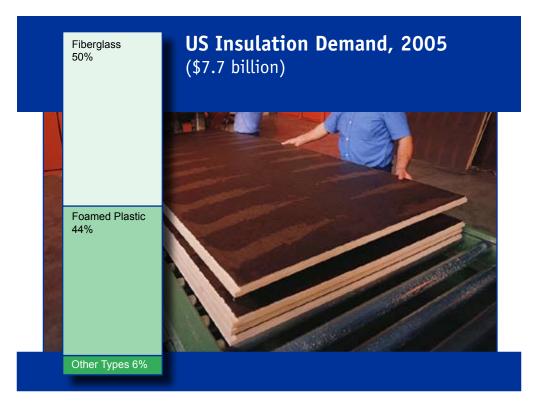
US demand to grow 4.9% annually through 2010

Demand for insulation materials in the United States is forecast to advance 4.9 percent per annum through 2010 to \$9.8 billion. Insulation will benefit primarily from renewed growth in nonresidential building construction, coupled with gains in appliance and transportation markets. Greater insulation use per structure and upgrades of insulation for existing buildings (both residential and nonresidential) will also boost insulation demand. Nevertheless, a weak residential building environment, characterized by declines from elevated 2005 levels in single-family housing starts and existing singlefamily home sales, will restrain demand for insulation in the residential market.

Fiberglass to benefit from more intensive use in new housing & from reinsulation

Fiberglass insulation remains the leading insulation material in use, accounting for more than half of demand in dollar and volume terms in 2005. Growth will be driven by more intensive use of fiberglass insulation per new housing unit, sparked by expanded concerns about energy efficiency, ease of installation and favorable cost factors. Best prospects will exist for fiberglass used in reinsulation applications, by both do-it-yourselfers and professional installers.

Foamed plastic insulation is the second largest insulation product in use in the



US, accounting for nearly 45 percent of demand in value terms and almost 30 percent in volume terms. Advances will derive from accelerating nonresidential building construction and production of appliances and transportation equipment. Foamed plastic insulation is widely used in nonresidential building markets in both spray-on and board forms, and is also common in appliance markets.

Among other insulation materials, reflective insulation and radiant barriers will see the fastest growth (from a small base) as they find increasing use in metal buildings and other nonresidential structures, as well as in pipe wrap, appliances and duct insulation, as a means of reducing energy costs.

Nonresidential building, replacement residential uses to lead market gains

A primary market for insulation, residential construction encompasses both new and replacement (repair, remodeling, attic reinsulation, etc.) applications. Gains will be more robust in replacement markets, as the decline in single-family home construction inhibits demand in new residential building. Nonresidential construction will provide the greatest growth opportunities, as the construction of office, commercial, industrial and other nonresidential buildings recovers from a recent sustained decline. Transportation uses will also post above-average gains through 2010.

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US Industry Study with Forecasts to 2010 & 2015



Sample Page, Table & Chart

TABLE IV-1

INSULATION DEMAND (million pounds)

Item

1995 2000 2005 2010 2015

Bldg Construction Expend (bil 2000\$) lbs insulation/000\$ construction

Insulation Demand*

Fiberglass

Foamed Plastic

Cellulose

Mineral Wool

Other

lbs/000 sq ft R-1 Insulation Demand* (bil sq ft R-1)

* excludes reflective insulation & radiant barriers

SAMPLE TABLE

COMPANY PROFILES

Carpenter Company

5016 Monument Avenue Richmond, VA 23230

804-359-0800

http://www.car

Annual Sales: Employment:

SAMPLE

erify, 12/05) 2/05)

Key Products: **PROFILE**

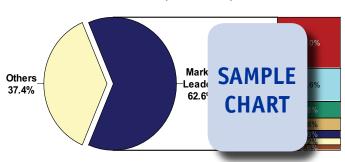
Carpenter expanded polystyrene (EPS) and supplies equipment for mixing and pouring PUR foam. Carpenter operates through eleven divisions: Air Filter Media, Bedding, Carpet Cushion, Chemicals, Chemical Systems, Consumer Products, EPS Systems, Flexible Foam Packaging, Furniture, Polyester Fiber and Tire Products.

The Company is active in the US insulation industry through the EPS Systems division (Fogelsville, Pennsylvania), which manufactures EPS foam insulation, packaging products and other items. Via the EPS Systems division, Carpenter produces roofing, exterior and geotechnical thermal insulation designed to resist moisture and provided dimensional stability. The Company's EPS roofing insulation in STYRODECK, holey board, flute fillers and FOAMFOLD produstryRODECK tapered EPS roof insulation systems are designed provide positive drainage and thermal insulation. Carpenter's righoley board EPS insulation, which can be used in lightweight corroof deck systems, offers moisture resistance and optimal slopet drain capabilities. Square edge and tapered EPS flute fillers from Company are designed to fill voids in roof systems. Carpenter's



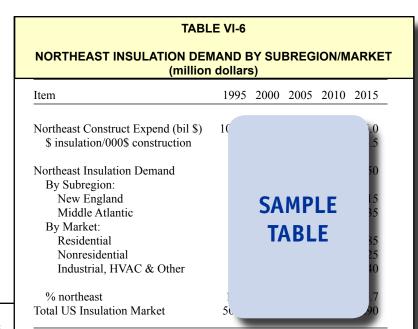


INSULATION MARKET SHARE BY COMPANY, 2005 (\$7.7 billion)



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MARKETS

Attic Reinsulation -- Demand for attic reinsulation is projected

SAMPLE TEXT

7 billion square feet of R-1 value in the energy efficiency of existing ures for residential improvements. is projected to decelerate slightly d for attic reinsulation is not increasner insulation standards. As a result, ons will flatten out over time. Nonesed attic R-values could spur some actures that have previously received

Insulation manufacturers have worked to make attic reinsulation products easier to install. For example, fiberglass batts are now available in encapsulated forms that reduce the opportunities for installers to come in contact with the glass fibers, a feature that is intended to appeal to the do-it-yourself (DIY) market. The market for loose-fill insulation, including cellulose, fiberglass and mineral wool, has benefitted to some extent from the growing use of pneumatic blowers that improve product distribution and reduce settling of the insulation in comparison with hand raked application. DIY attic insulators can often rent pneumatic blowers from the home centers from which they purchased the insulation. Perforated facing to aid in ease of installation, formaldehyde-free fiberglass products and expanding availability and education about reflective insulation and radiant barriers will also support demand among DIY installers.

Fiberglass is by far the dominant material utilized in attic reinsulation applications, accounting for nearly 85 percent of demand in 2005. Products used include batts and blankets installed between the rafters or roofing supports, as well as loose fill material applied on the rafters, mostly in unfinished attics. The remainder of demand is accounted for

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OTHER STUDIES

World Insulation

Global consumption of thermal and acoustical insulation will reach 20.2 billion square meters in 2011. Developing Asian countries will continue to lead gains, driven by strong construction and manufacturing activity. Foamed plastic will remain dominant while mineral wool will grow the fastest. This study analyzes the \$26.5 billion world insulation industry with forecasts for 2011 and 2016 presented by material, market, world region and for 46 countries. It also evaluates market share and profiles major producers.

Glass Fibers

World Siding (Cladding)

Global demand for exterior siding (or cladding) will grow 3.8% yearly through 2010 based on a pickup in nonresidential building construction. Metal, concrete and stone, and fiber cement siding will grow the fastest. China, India and Russia will lead gains, while growth rates in developed countries will be slower. This study analyzes the 4.3 billion square meter world siding industry to 2010 and 2015 by product, market, world region and for 31 countries. It also evaluates market share and profiles major producers.

Brick & Block

US brick and block demand will grow 4.1% yearly through 2010. Concrete pavers and decorative block will grow the fastest, followed by nonstructural clay brick siding and structural concrete block. Healthy nonresidential building activity will benefit structural, fencing and other brick and block uses (e.g., paving, landscaping). This study analyzes the \$5.7 billion US brick and block industry to 2010 and 2015 by product, market, application and region. It also details market share and profiles major players.

#2061 \$4200

World Drywall & Building Plasters

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