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[Table of Contents 2](#)

[List of Tables & Charts 3](#)

[Study Overview 4](#)

[Sample Text, Table
& Chart 5](#)

[Sample Profile, Table &
Forecast 6](#)

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Green Building Materials

US Industry Study with Forecasts for **2017 & 2022**

Study #2995 | February 2013 | \$5100 | 405 pages

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Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

General	4
Macroeconomic Environment.....	5
Demographic Trends	8
Building Construction	13
Residential Buildings.....	15
Housing Completions.....	18
Housing Stock.....	21
Improvements & Repairs.....	25
Nonresidential Buildings	26
New.....	27
Improvements & Repairs.....	29
Nonresidential Building Stock.....	31
Legislative, Regulatory, & Other	
Governmental Considerations	34
Building Certification	36
LEED.....	36
IGCC	39
Other Certification Programs.....	41
Historical Market Trends.....	43
Foreign Trade	46

PRODUCTS

General	48
Exterior Products	54
Energy-Efficient Residential Windows	56
Market Demand	56
Product Characteristics	58
Green Roofing	61
Market Demand	61
Characteristics of LEED-Eligible Roofing.....	64
Green Roofing Materials.....	65
Green Doors	68
Market Demand	68
Product Characteristics	71
Green Siding	73
Market Demand	74
Product Characteristics	76
Interior Products.....	78
Green Floor Coverings.....	79
Market Demand	80
Characteristics of LEED-Eligible	
Floor Coverings	83
Green Floor Coverings Demand.....	86
Green Insulation.....	87
Market Demand	88
Characteristics of LEED-	
Eligible Insulation	89
Green Insulation Materials	90

Green Gypsum Board	92
Market Demand	92
Product Characteristics	94
Building Systems	97
Energy-Efficient Residential	
HVAC Systems.....	99
Market Demand	99
Characteristics of LEED-Eligible	
Residential HVAC Systems.....	101
Green Residential HVAC Systems.....	103
Energy-Efficient Nonresidential Glazing..	104
Market Demand	104
Product Characteristics	106
Water-Efficient Plumbing	
Fixtures & Fittings	107
Market Demand	107
Characteristics of LEED-Eligible	
Plumbing Fixtures & Fittings	109
Green Plumbing Fittings & Fixtures.....	111
Energy-Efficient Residential	
Lighting Fixtures	112
Market Demand	112
Product Characteristics	114
Solar Power Products	116
Market Demand.....	116
Characteristics of LEED-Eligible	
Solar Power Products	119
Solar Power Products Demand	121
Structural Products.....	122
Recycled Concrete.....	123
Market Demand	124
Product Characteristics	127
FSC-Certified Lumber	131
Market Demand	131
Product Characteristics	134
FSC-Certified Wood Panels	135
Market Demand	135
Product Characteristics	137
Permeable Pavement.....	138
Market Demand.....	139
Product Characteristics	141

MARKETS

General	144
Residential Buildings.....	146
Single-Family Housing	150
Multifamily Housing	154
Manufactured Housing	157
Nonresidential Buildings	160
Office & Commercial Buildings	163
Institutional Buildings	168
Industrial Buildings	172
Other Nonresidential Buildings.....	175

REGIONS

General	179
Regional Demographic	
& Economic Trends.....	180
Population Patterns.....	181
Economic Outlook	184
Regional Construction.....	187
Housing Trends.....	190
Regional Demand for Green	
Building Materials.....	193
Northeast	196
New England.....	200
Middle Atlantic.....	201
Midwest	202
East North Central	208
West North Central.....	209
South	210
South Atlantic.....	216
East South Central	217
West South Central	218
West.....	219
Mountain	224
Pacific	226

INDUSTRY STRUCTURE

General	228
Industry Composition	229
Marketing	233
Manufacturing	237
Distribution	239
Cooperative Agreements.....	241
Mergers & Acquisitions.....	246

COMPANY PROFILES

American Standard Brands.....	250
Andersen Corporation	254
Armstrong World Industries	260
Berkshire Hathaway.....	265
BlueScope Steel.....	272
Boral Limited	279
Bridgestone Corporation.....	284
Building Materials Corporation of America.....	288
Carlisle Companies	291
CEMEX SAB.....	295
Collins Companies	297
Columbia Forest Products	298
Forbo Holding	302
HeidelbergCement AG	306
Holcim Limited.....	308
Ingersoll-Rand plc.....	312

(continued on following page)

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Table of Contents

COMPANY PROFILES

(continued from previous page)

International Paper	315
JELD-WEN Incorporated	318
Koch Industries	322
Kohler Company.....	327
Kyocera Corporation	332
Lafarge SA	334
Louisiana-Pacific Corporation	337
Mannington Mills	341
Masco Corporation.....	348
Masonite International	352
Mohawk Industries	356
Monier Group.....	362
Norbord Incorporated	364
Nucor Corporation	365
Owens Corning.....	369
Pella Corporation	372
PPG Industries.....	375
Roseburg Forest Products	377
Saint-Gobain	379
Serious Energy.....	384
Sharp Corporation	386
SunPower Corporation.....	388
United Technologies	390
Universal Forest Products	394
USG Corporation	397
Additional Companies Mentioned in Study	404

List of Tables/Charts

EXECUTIVE SUMMARY

1 Summary Table.....	3
----------------------	---

MARKET ENVIRONMENT

1 Macroeconomic Indicators.....	8
2 Population & Households.....	13
3 Building Construction Expenditures	15
4 Residential Building Construction Expenditures.....	17
5 Housing Completions.....	21
6 Housing Stock by Type	24
Cht Year of Construction of Housing Stock, 2012.....	24
7 Residential Improvement & Repair Expenditures.....	26

8 Nonresidential Building Construction Expenditures	29
9 Nonresidential Building Improvement & Repair Expenditures.....	31
10 Nonresidential Building Stock.....	33
11 Green Building Materials Market, 2002-2012	45
Cht Green Building Materials Market, 2003-2012	46
12 Green Building Materials Foreign Trade.....	47

PRODUCTS

1 Green Building Materials Demand by Segment	53
Cht Green Penetration Rates for Selected Building Materials, 2002-2022.....	54
2 Green Exterior Building Materials Demand by Type.....	55
3 Energy-Efficient Residential Window Demand.....	58
4 Green Roofing Demand	64
5 Green Door Demand	71
6 Green Siding Demand	76
7 Green Interior Building Materials Demand by Type.....	79
8 Green Floor Coverings Demand.....	83
9 Green Insulation Demand.....	89
10 Green Gypsum Board Demand	94
11 Green Building Systems Demand by Type.....	98
12 Energy-Efficient Residential HVAC Systems Demand	101
13 Energy-Efficient Nonresidential Glazing Demand	106
14 Water-Efficient Plumbing Fixtures & Fittings Demand.....	109
15 Energy-Efficient Residential Lighting Fixtures Demand	114
16 Solar Power Products Demand.....	119
17 Green Structural Building Materials Demand by Type.....	123
18 Recycled Concrete Demand.....	127
19 FSC-Certified Lumber Demand	133
20 FSC-Certified Structural Wood Panel Demand.....	137
21 Permeable Pavement Demand.....	141

MARKETS

1 Green Building Materials Demand by Market.....	145
---	-----

2 Residential Green Building Materials Demand by Housing Type & Segment.....	150
3 Single-Family Housing Demand for Green Building Materials.....	154
4 Multifamily Housing Demand for Green Building Materials.....	157
5 Manufactured Housing Demand for Green Building Materials.....	159
6 Nonresidential Green Building Materials Demand by Building Type & Segment.....	163
7 Office & Commercial Demand for Green Building Materials.....	168
8 Institutional Demand for Green Building Materials.....	172
9 Industrial Demand for Green Building Materials	175
10 Other Nonresidential Building Demand for Green Building Materials.....	178

REGIONS

1 Population by Region	184
2 Gross Domestic Product by Region.....	187
3 Construction Expenditures by Region	189
4 Regional Housing Indicators.....	192
5 Green Building Materials Demand by Region.....	195
Cht Green Building Materials Demand by Region, 2012.....	195
6 Northeast Green Building Materials Demand by Subregion, Market, & Segment	200
7 Midwest Green Building Materials Demand by Subregion, Market, & Segment	208
8 South Green Building Materials Demand by Subregion, Market, & Segment	215
9 West Green Building Materials Demand by Subregion, Market, & Segment	224

INDUSTRY STRUCTURE

1 Selected US Green Building Materials Producers, 2012.....	231
2 Selected Cooperative Agreements.....	243
3 Selected Acquisitions & Divestitures.....	247

Gains in green building material demand will be propelled by a rebound in construction activity -- especially new homes -- and continuing consumer interest in environmentally friendly products.

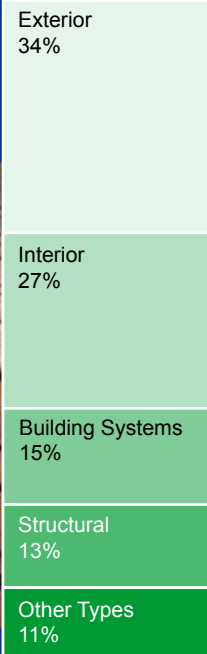
US demand to rise 11% annually through 2017

US construction activity declined sharply during much of the 2007-2012 period, but demand for green building materials held its own, boosted by consumer interest in products that could reduce utility bills or promote environmentally friendly construction practices. Homeowners and builders installed ENERGY STAR-certified windows and heating, ventilation, and air conditioning (HVAC) systems to lower energy costs and reduce energy consumption, and WATERSENSE-compliant plumbing products to reduce water use.

Through 2017, a rebound in construction activity will propel growth in green building materials demand 11 percent annually to \$86.6 billion. In addition to the lift supplied by general construction activity, continuing consumer interest in environmentally friendly products will increase the market share of most green building materials relative to non-green alternatives. Growth in residential construction will promote base demand for products such as carpeting, gypsum board, concrete, and metal building products, while products that contribute to the earning of Leadership in Energy and Environmental Design (LEED) certification will see an additional boost.

Over the forecast period, builders and architects will increasingly opt to earn high levels of LEED certification by specifying the use of materials that earn LEED points. Residential HVAC sys-

US Green Building Materials Demand, 2017 (\$86.6 billion)



tems, concrete made with fly ash, and lumber harvested in a sustainable manner can all contribute to LEED certification, and all are forecast to see above-average gains in demand.

Recycled concrete, permeable pavement among best prospects

Solar power products saw explosive growth between 2002 and 2012, driven by increasing installation of rooftop-based solar power modules connected to electricity distribution systems. Going forward, favorable tax incentives and strong interest in the use of renewable energy sources will promote demand for LEED-eligible solar power products.

Green building products such as recycled concrete, ENERGY STAR-compliant HVAC systems, and permeable pavement are forecast to see substantial gains through 2017. Recycled concrete will see rising use, as concrete made with fly ash and other additives features superior performance properties and is less costly than concrete made solely from cement and aggregates. Demand for green building systems will be spurred by strong residential demand for ENERGY STAR-compliant HVAC systems that lower utility bills. Permeable pavement demand will be supported by interest in reducing water runoff and minimizing strains on older sewer and water systems.

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Sample Text, Table & Chart

PRODUCTS

Market Demand -- Demand for building insulation products totaled 169 billion square feet of R-1 value in 2012, a sharp decline from the level seen in 2007. Insulation demand was negatively affected by a steep fall in new housing activity during the 2007-2009 recession, followed by a further drop in demand seen during the contraction of the residential segment in 2009 and 2010. However, residential improvement and repair demand for insulation remained strong between 2009 and 2012, preventing more rapid declines in demand. Rising utility costs and tax credits that promoted energy efficiency measures spurred homeowners to install more insulation in their homes to reduce energy consumption.

Green insulation accounted for 74 percent of insulation demand in 2012, or 125 billion square feet of R-1 value. This demand for green insulation stems from the predominance of fiberglass insulation used in building construction applications. Fiberglass insulation is a low cost material that provides good insulative value and is easily installed. Indeed, the installation of fiberglass insulation, such as in an attic, was one of the leading home improvement and repair projects between 2007 and 2012, as spiking energy prices spurred homeowners to add insulation to reduce utility bills.

Demand for fiberglass and cellulose insulation is expected to grow through 2017 to 185 billion square feet of R-1 value, driven by rebounding building construction activity. The market for green insulation is forecast to rise as a whole, reaching 145 billion square feet of R-1 value in 2017, or \$4.2 billion. This growth is spurred by the use of fiberglass and cellulose insulation in most of the new residential structures. Moreover, interest in improving the energy performance of existing structures will cause architects and designers to specify the use of green insulation in structures as a whole. Building and construction

88

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SAMPLE TEXT

TABLE IV-6

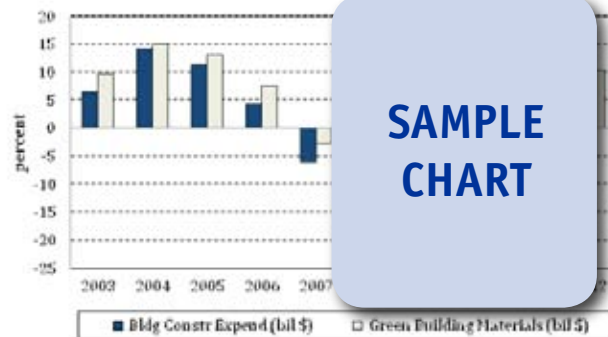
NONRESIDENTIAL GREEN BUILDING MATERIALS DEMAND BY BUILDING TYPE & SEGMENT (million dollars)

Item	2002	2007	2012	2017	2022
Nonresidential Bldg Construction (bil \$)					
\$ green materials/000\$ construction					
Nonresidential Green Building Materials Demand					
By Building Type:					
Office & Commercial					
Institutional					
Industrial					
Other					
By Segment:					
Exterior					
Interior					
Building Systems					
Solar Power Products					
Structural					
Permeable Pavement					
% nonresidential Green Building Materials Demand	35	35	35	35	35

SAMPLE TABLE

CHART II-2

GREEN BUILDING MATERIALS MARKET, 2003-2012 (percent change)



SAMPLE CHART

Source: The Freedonia Group, Inc.

Sample Profile, Table & Forecast

COMPANY PROFILES

Building Materials Corporation of America

1361 Alps Road
 Wayne, NJ 07470
 973-628-3000
<http://www.gafmc.com>

Annual Sales:
 Employment:

Key Products:
 systems, cool
 insulation

**SAMPLE
PROFILE**

Building Materials Corporation of America, which operates as GAF Materials Corporation (GAFMC), is engaged in the manufacture and sale of building materials, primarily roofing, for the residential and nonresidential markets. The Company is owned by BMCA Holdings Corporation (US), itself a wholly owned subsidiary of privately held G-I Holdings Incorporated (US).

GAFMC is involved in the US green building materials industry through the manufacture of roofing systems, membranes, asphalt shingles, and insulation. Roofing systems encompass built-up roofing (BUR), modified bitumen, and vegetative varieties. Among GAFMC's BUR offerings are GAFGLAS ENERGYCAP, a cap sheet that is made in 33 foot lengths and has a solar reflectance index (SRI) of 100. Representative modified bitumen roofing systems include RUBEROID ENERGYCAP cap sheets, which are available in atactic polypropylene types with SRIs of 104 and styrene-butadiene-styrene models with SRIs of up to 99. For example, RUBEROID ENERGYCAP SBS 30 FR cap sheets are nonwoven glass mats coated with fire retardant styrene-butadiene-styrene polymer-modified asphalt. GAFMC's vegetative

288

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TABLE V-6

NORTHEAST GREEN BUILDING MATERIALS DEMAND BY SUBREGION, MARKET & SEGMENT (million dollars)

Item	2002	2007	2012	2017	2022
Northeast Construction Expenditures (billion dollars)	100	110	120	130	140
\$ green materials/000\$ construction	10	12	14	16	18
Northeast Green Building Materials					
By Subregion:					
New England					
Middle Atlantic					
By Market:					
Residential					
Nonresidential					
By Segment:					
Exterior					
Interior					
Building Systems					
Solar Power Products					
Structural					
Permeable Pavement					
% Northeast					
Green Building Materials Demand	35	45	55	65	75

**SAMPLE
TABLE**

"Northeast demand for green building products is forecast to advance 10 percent per year to \$14.8 billion in 2017. Growth will be spurred by the region's rebounding building construction expenditures. Further gains will be supported by strong consumer interest in erecting LEED-certified structures, such as those made with LEED-eligible materials. The Northeast experiences harsh winters that make the use of such products as insulation and ENERGY STAR windows an important consideration. However, ..."

--Section V, pg. 196

OTHER STUDIES

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

Windows & Doors in China

Window and door sales in China will rise 8.1 percent yearly to 570 billion yuan in 2017. Plastic will be the fastest growing window material based on insulation and cost advantages. Wood will remain the top door material, supported by more wood/steel and wood/plastic composite doors. This study analyzes the 387 billion yuan window and door industry in China. It presents historical demand data (2002, 2007, 2012) and forecasts for 2017 and 2022 by type, material, market and region. The study also evaluates company market share and profiles industry players.

#3088 January 2014 \$5300

World Building Boards

Global demand for building boards will rise 6.2 percent per year through 2017 to 398 million cubic meters. China will see its share of global demand rise to half of the total, with solid gains also expected in North America and other regions such as South America and Eastern Europe. Structural boards will outpace nonstructural. This study analyzes the 295 million cubic meter world building board industry, with forecasts for 2017 and 2022 by product, market, world region, and for 18 countries. The study also evaluates company market share and profiles industry players.

#3074 September 2013 \$6100

Hard Surface Flooring

US demand for hard surface flooring will rise 5.0 percent per year to 9.3 billion square feet in 2017. Vinyl will remain the largest product segment and will grow the fastest, followed by tile and wood. The residential market will outpace nonresidential uses, with remodeling and replacement applications remaining the largest segment. This study analyzes the 7.2 billion square foot US hard surface flooring industry, with forecasts for 2017 and 2022 by product and market. The study also evaluates company market share and profiles industry competitors.

#3037 June 2013 \$5100

Building Boards

US building board demand will rise 7.0 percent yearly through 2017 to 52.5 billion square feet (3/8 inch basis). Windows and doors, subflooring, and roofing will be the fastest growing uses. OSB will outpace softwood plywood among structural boards. Insulation board and high and low density fiberboard will pace nonstructural boards. This study analyzes the 37.5 billion square foot US building board industry, with forecasts for 2017 and 2022 by product, market, application, and region. The study also evaluates company market share and profiles industry players.

#3017 April 2013 \$4900

About The Freedonia Group

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