Carpets & Rugs

US Industry Study with Forecasts for 2015 & 2020

Study #2835 | January 2012 | $4800 | 271 pages

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# Carpets & Rugs
US Industry Study with Forecasts for 2015 & 2020

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Growth in both demand and shipments will result primarily from an expected recovery in the US housing industry; residential markets accounted for over three-fifths of total demand in 2010.

**US demand to rise 7.9% annually through 2015**

Demand for carpet and rug products in the US is projected to increase 7.9 percent annually from a weak 2010 base to 16.5 billion square feet in 2015, accounting for about 64 percent of total floor covering demand. Shipments of carpets and rugs will total 15.3 billion square feet in 2015, valued at $14 billion. Growth in both demand and shipments will result primarily from an expected recovery in the US housing industry, which was hit hard by the recession and the sub-prime loan crisis. Residential markets are key to carpet and rug manufacturers, as these markets accounted for over three-fifths of total demand in 2010.

**Carpet tile to gain market share from small base**

Tufted carpet and rug products, particularly broadloom carpet, will continue to dominate demand. These “wall to wall” carpet products remain the industry standard and offer the best combination of economy, durability and aesthetics to the greatest number of consumers. Nevertheless, modular carpet (carpet tile) is an important contributor, particularly in nonresidential markets. Improvements in appearance, durability and styling options, coupled with advantages in the installation of new tiles (particularly in occupied spaces) and replacement of damaged tiles, have dramatically increased the popularity of modular carpet. Demand is expanding outward from the office and commercial sector into many nonresidential markets, and even into residential markets.

**Nylon to remain dominant fiber material**

Nylon will remain the dominant fiber material used in the manufacture of carpet and rug products. However, polyester has displaced polypropylene as the second most used face fiber material. Polyester fibers, made from recycled beverage bottles, have improved greatly in terms of durability, feel and appearance in recent years, and their cost advantage continues to benefit these fibers.

**Carpets and rugs to maintain market position with hard surface flooring**

Carpet and rug products will continue to remain locked in competition with hard surface flooring products such as ceramic and vinyl tile, hardwood flooring and laminates. The competitive advantages of carpet and rug products, such as total installed cost, as well as their tactile and aesthetic qualities, will allow these products to maintain their significant market position. In some cases, as with area rugs and throw rugs, these products complement, rather than compete with, hard surface flooring.
Materials

Face Fibers

Demand for face fibers used in carpets and rugs is projected to increase from 2.4 billion pounds in 2010 to 2.7 billion pounds in 2015. This represents a 7.8 percent annual increase in face fiber demand from 2010, due to the economic recession and the collapse of the US residential building sector. As the economy gradually improves and residential building activity eventually recovers, demand for carpets and rugs will also rebound, driving increased demand for face fibers. Although nylon remains the leading material used in the manufacture of face fibers, polyester has replaced polypropylene as the second most used material, a trend which is expected to continue.

Synthetic fibers are made in bulk continuous filament (BCF) or staple forms. The majority of demand results from BCF, which consists of a continuous strand of yarn that is twisted with other fibers and heat-set to form bundles. Staple fiber is made by spinning together a series of short strings to form a single yarn, and then by twisting several yarns together to create a yarn bundle. Nylon fibers are manufactured in both BCF and staple forms, while polypropylene fibers are produced mostly in BCF form. Polyester fibers had been produced almost exclusively in staple form, although new manufacturing processes have been developed which allow the BCF production of polyester fibers. By their very nature, natural fibers such as cotton and wool are produced only in staple form.

As recently as a few years ago, polyester fibers were a distant third in carpet face fiber markets, behind nylon and polypropylene. The sharp recession of the late 2000s led to a steep decline in demand, and with it, reduced demand for face fibers. Increased emphasis shifted to lower price products as both homeowners and commercial carpet consumers reined in spending. In addition, petroleum prices drove up the manufacturing costs for both nylon and polypropylene fibers, while polyester fiber was somewhat less affected.

Table IV-2

TUFTED CARPET & RUG SUPPLY & DEMAND
(million square feet)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Carpet &amp; Rug Demand</td>
<td>19130</td>
<td>19700</td>
<td>11270</td>
<td>16500</td>
<td>19000</td>
</tr>
<tr>
<td>% tufted carpets &amp; rugs</td>
<td>86.8%</td>
<td>86.3%</td>
<td>85.1%</td>
<td>87.6%</td>
<td>87.0%</td>
</tr>
<tr>
<td>Tufted Carpet &amp; Rug Demand</td>
<td>16600</td>
<td>16995</td>
<td>9595</td>
<td>14455</td>
<td>16535</td>
</tr>
<tr>
<td>+ net exports</td>
<td>425</td>
<td>395</td>
<td>-45</td>
<td>-95</td>
<td>-175</td>
</tr>
<tr>
<td>Tufted Carpet &amp; Rug Shipments</td>
<td>17025</td>
<td>17390</td>
<td>9550</td>
<td>14360</td>
<td>16360</td>
</tr>
<tr>
<td>Broadloom</td>
<td>14500</td>
<td>14735</td>
<td>7495</td>
<td>11860</td>
<td>13600</td>
</tr>
<tr>
<td>Vehicular</td>
<td>765</td>
<td>890</td>
<td>820</td>
<td>950</td>
<td>1000</td>
</tr>
<tr>
<td>Carpet Tiles</td>
<td>355</td>
<td>400</td>
<td>445</td>
<td>540</td>
<td>600</td>
</tr>
<tr>
<td>Scatter Rugs &amp; Bath Mats</td>
<td>965</td>
<td>980</td>
<td>435</td>
<td>600</td>
<td>700</td>
</tr>
<tr>
<td>Artificial Grass</td>
<td>440</td>
<td>385</td>
<td>355</td>
<td>410</td>
<td>460</td>
</tr>
<tr>
<td>$/sq ft</td>
<td>0.65</td>
<td>0.73</td>
<td>0.85</td>
<td>0.93</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Chart VI-1

US CARPET & RUG MARKET SHARE, 2010
($8.5 million)

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Sample Profile, Table & Forecast

COMPANY PROFILES

Ascend Performance Materials LLC
600 Travis Street, Suite 300
Houston, TX  77002
713-315-5700
http://www.ascendmaterials.com

Annual Sales:
Employment:

Key Products:

Ascend Performance Materials LLC is a fully integrated global provider of proprietary technologies that are used primarily in the production of nylon, as well as plastics and synthetic fibers. The Company is owned by SK Capital Partners LP (New York, New York), a private equity firm that created Ascend Performance Materials following the April 2009 purchase of the Integrated Nylon business of Solutia Incorporated (St. Louis, Missouri).

The Company is vertically integrated in the US carpet and rug industry through the production of nylon intermediates and nylon fibers. Nylon intermediates include such chemicals as adipic acid, triaminonanone and hexamethylenediamine, which are used to make both proprietary and third-party fiber products. Ascend manufactures nylon-6,6 fibers, including ULTRON and NO-SHOCK types, primarily for applications in commercial carpeting. ULTRON carpet fibers are engineered with a mixed-denier/cross section extruded design, and feature crush-, mat-, wear-, soil- and stain- and static-resistant characteristics. In addition to standard grades, the Company’s ULTRON line also includes ULTRON STAINGUARD types treated with enhanced stain and bleach resistance; ULTRON PRISMATIC varieties, which utilize dyeing technologies that allow richer coloration; ULTRON SDN

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Table V-1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bldg Improvement/Repair (bil 2005$)</td>
<td>412</td>
<td>436</td>
<td>379</td>
<td>433</td>
<td>479</td>
</tr>
<tr>
<td>sq ft floor covering/000$I&amp;R</td>
<td>62.9</td>
<td>66.5</td>
<td>46.9</td>
<td>59.4</td>
<td>62.4</td>
</tr>
<tr>
<td>Floor Covering Demand</td>
<td>259,500</td>
<td>289,600</td>
<td>177,600</td>
<td>257,000</td>
<td>299,000</td>
</tr>
<tr>
<td>% carpets &amp; rugs</td>
<td>73.7</td>
<td>68.0</td>
<td>63.5</td>
<td>64.2</td>
<td>63.5</td>
</tr>
<tr>
<td>Carpet &amp; Rug Demand</td>
<td>19,130</td>
<td>19,700</td>
<td>11,270</td>
<td>16,500</td>
<td>19,000</td>
</tr>
<tr>
<td>Residential Building</td>
<td>12,900</td>
<td>13,645</td>
<td>7,025</td>
<td>10,400</td>
<td>12,390</td>
</tr>
<tr>
<td>Nonresidential Building</td>
<td>5,030</td>
<td>4,870</td>
<td>3,465</td>
<td>5,045</td>
<td>5,490</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>1,200</td>
<td>1,185</td>
<td>780</td>
<td>1,055</td>
<td>1,120</td>
</tr>
<tr>
<td>$/sq ft</td>
<td>0.67</td>
<td>0.75</td>
<td>0.83</td>
<td>0.92</td>
<td>0.99</td>
</tr>
<tr>
<td>Carpet &amp; Rug Demand (mil $)</td>
<td>12,775</td>
<td>14,800</td>
<td>9,400</td>
<td>15,100</td>
<td>18,850</td>
</tr>
</tbody>
</table>

“Demand for carpets and rugs in manufactured housing is forecast to rise 7.9 percent per year to 490 million square feet in 2015. This will be a turnaround from the double-digit annual declines experienced between 2005 and 2010, when demand fell as manufactured housing shipments dropped precipitously. Through 2015, manufactured housing shipments are expected to increase, boosting new carpet and rug demand. This growth will also ...”

--Section V, pg. 139
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Page 7
Other Studies

World Flooring & Carpets
World flooring and carpet demand will rise 4.9 percent yearly to 18.6 billion square meters in 2016. The Asia/Pacific region will see the most rapid growth. Nonresidential buildings will be the fastest growing market, while nonresilient flooring will pace products. North America will offer the best prospects for carpets and rugs. This study analyzes the 14.6 billion square meter world flooring and carpet industry, with forecasts for 2016 and 2021 by product, market, world region and for 20 countries. The study also evaluates company market share and profiles industry players. 
#2981 January 2013 $6300

Wood & Competitive Decking
US demand for decking is forecast to rise 2.4 percent annually through 2016 to 3.3 billion lineal feet, valued at $5.7 billion. Wood-plastic composite and plastic lumber decking materials will grow at double-digit rates, far outpacing the dominant wood segment. The residential building market will lead gains. This study analyzes the 2.9 billion lineal foot US wood and competitive decking industry, with forecasts for 2016 and 2021 by material type, market, application and US region. The study also evaluates company market share and profiles industry competitors. 
#2959 October 2012 $5300

World Drywall & Building Plaster
Worldwide sales of drywall will rise 8.6 percent annually through 2016 to 10.7 billion square meters, with China and the US claiming most new demand. The residential market will outpace its nonresidential counterpart. Global building plaster demand will rise 5.8 percent annually to 37.4 million metric tons in 2016. This study analyzes the world drywall and building plaster industry, with forecasts for 2016 and 2021 by product, market, world region and for 23 major countries. The study also evaluates company market share and profiles industry participants. 
#2924 August 2012 $6100

World Solid Surface & Other Cast Polymers
Global demand for cast polymers will grow 7.9 percent annually to 252 million square meters in 2016. Most projected growth will be attributable to China, a country with an emerging domestic cast polymer industry and large construction sector. Engineered stone will grow the fastest while solid surface materials remain dominant. This study analyzes the 172 million square meter world cast polymer industry, with forecasts for 2016 and 2021 by product, application, world region and for 18 countries. The study also evaluates company market share and profiles industry players. 
#2901 July 2012 $6100

Decorative Laminates
US demand for decorative laminates is forecast to advance 5.5 percent per year to 12.4 billion square feet in 2015. The cabinet market will remain the largest segment, while flooring will record the most rapid gains. Saturated papers will grow the fastest within the dominant low pressure overlay product segment, followed by decorative foils. This study analyzes the 9.5 billion square foot US decorative laminate industry, with forecasts for 2015 and 2020 by material, product and market. The study also evaluates company market share and profiles industry players. 
#2849 February 2012 $4900

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- Industrial Components & Equipment
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