2013 Product Portfolio
Post-Consumer Carpet Content Products

February 2014
Manufacturers

www.carpetrecovery.org
Market Environment
(Size of the Post Consumer Market in lbs. of material)

2012 CARE Survey Results

Landfill Diversion

Pounds (million)

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tbody>
<tr>
<td></td>
<td>94</td>
<td>106</td>
<td>225</td>
<td>261</td>
<td>296</td>
<td>292</td>
<td>311</td>
<td>337</td>
<td>333</td>
<td>351</td>
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</table>

Note: CAGR based on 6 year span of time

www.carpetrecovery.org
CARE’s Role in Connecting The Supply Chain

**Mission:** Enable market-based solutions for the reuse and recycle of post-consumer carpet.

CARE brings together stakeholders from the carpet industry, entrepreneurs, NGOs, government and academia to foster dialog, the development of new processes, products, equipment and markets to reduce landfill of carpet and close the loop for reuse of valuable raw materials.

Today almost 30% of the post-consumer carpet that is recycled in the United States goes back into carpet face fiber and backings.
Market Drivers of Recycling

Sustainability concepts
Recycled/Renewable Materials
LCA/EPDs/EHD and PCRs
LEED, CHPS, Green Globes
NSF/ANSI 140

Emerging Green Definitions/Metrics

Regulatory Measures
- International Green Construction Code
- CA Green Chemistry Rule
- CA SABRC legislation
- EPA CPG
- REACH

VOCs
- Radiant Panel ASTM D1335
- Smoke Density ASTM E662
- Tuft Bind ASTM D1335
- Delamination Strength D3936
- VOC Emissions ASTM D5116
- CRI Green Label Plus
- USDA Bio Preferred Label

Recyclable

Performance Standards/Specifications

Formulation Challenges for Carpet Industry

Physical Testing - Carpets

High

Low
Recycled Products

CARE Annual Survey, 2012

- Carpet, 27%
- Engineered Resins, 63%
- Other, 1%
- Carpet Cushion, 9%

74% recycled
Manufacturers Profiles
Agrestal Designs

We complete the look

made in the USA from recycled materials
**Who we are:**

Amee Quiriconi, inventor of Squak Mountain Stone, is Agrestal Designs’ founder and serves as the company’s product design expert and marketing expert in the areas of green construction and low-carbon cement.

**What we do:**

Agrestal Designs creates fine art, home living accessories, outdoor living and tiles from recycled calcium carbonate and low-carbon cement. We also provide consulting to businesses interested in developing recycled-content products.

**Business Profile:**

Private, independent light manufacturing & consulting company founded in 2012 outside Seattle in Snohomish, WA

1-2 employees

**Contacts:**

Contact: Amee Quiriconi
Email: amee@agrestaldesigns.com
Phone: 206-755-9516

www.agrestaldesigns.com
Product Design & Branding Consulting

Provide Technical support for cement-based technologies including manufacturing processes, composition and design.

Provide marketing and branding for products such as brand/product names, narratives/”story” for marketing & collateral as well as market analysis.

White box/custom manufacturing possible as well.
The Aquafil Group

Composed of:

- 3 business units
- 2,100 employees
- at 12 plants
- in 7 countries
- on 3 continents

You should see where we come from.

Synthetic fibres and polymers
WHO WE ARE

Producers of bcf synthetic yarn for carpeting used in the contract, residential and automotive sectors and of ECONYL® made with regenerated content containing both post-industrial and post-consumer waste.

WHAT WE DO

Take advantage of the particular characteristics of nylon6, and developed a mechanical-chemical process which transforms PA6 into a new regenerated raw material (caprolactam) with the same chemical, physical and performance characteristics as virgin raw material.

CONTACT: Jim Lindsey, 678-605-8149, jimlindsey@aquafil.com  http://www.aquafil.com/en
**ECONYL® AT A GLANCE**

- 4 years of research, system planning and plant building
- 17 million euro invested in the project
- 20 researchers
- 3 international universities participated in the project
- 4 million tons: the amount of nylon 6 produced globally every year which ends up in the landfill sites or incinerators at the end of its life

The ECONYL Regeneration System is:

**Infinite** - as the waste polyamide 6 can be regenerated an infinite number of times to produce new polymers whose technical characteristics and quality is no different from that of the product obtained from the fossil materials.

**Innovative** - as it is the only system of its kind anywhere in the world in terms of efficiency and productivity.

**Environmentally Friendly** - as it recovers waste which would otherwise end up in landfill or in the oceans (fishing nets) causing serious damage to the entire ecosystem. It also enables real savings in terms of natural fossil resources - about 7 barrels of oil per ton of regenerated polymers produced - as no virgin caprolactum is used to produce it.
Revolutionary Substrate from 100% Post-Consumer Content
**Who we are:**
Our company utilizes a novel and patent pending process to recycle waste and efficiently create new products.

**What we do:**
EcoStrate™ produces alternative post-consumer substrates and signs to replace aluminum, acrylic and polycarbonate.

**Business Profile:**
- Born in the USA
- Made in the USA
- 100% post-consumer content
- Employ disabled workforce
- Sales under $100,000

**Contacts:**
Contact: Ron Simonetti  
Email: rsimonetti@ecostratesfs.com  
Phone: 484-885-5890

[www.ecostratesfs.com](http://www.ecostratesfs.com)
Our products are made from post consumer electronic packaging, carpet and textile waste that would otherwise be discarded in our Landfills. Our process is flexible enough to utilize a variety of waste streams to create new products, signs and substrates.
### Who we are:

Fiberon is the leading, innovative manufacturer of PVC and composite decking, railing and fencing products used in homes and commercial construction across North, Central and South America, Europe, Asia and Australia.

### What we do:

We make the most beautiful and durable brand of composite decking, railing and fencing products – Fiberon. Our history of innovation includes:

- 1998  First to offer co-extruded composite rail
- 2004  Uncapped multi-chromatic decking
- 2008  Capped composites with warranty
- 2010  Mainstream hidden fastener system
- 2014  95% recycled, post-consumer carpet fiber boards

### Business Profile:

Fiberon was founded in 1997 as Fiber Composites - an innovative leader in the treated lumber business. Fiberon recognized the superiority of wood plastic composite decking materials providing longer lasting and lower maintenance benefits compared with treated lumber.

### Contacts:

Doug Mancosh, President
[doqgm@fiberondecking.com](mailto:doqgm@fiberondecking.com)

Shellie Sellards, VP Marketing
[shellie.sellards@fiberondecking.com](mailto:shellie.sellards@fiberondecking.com)

Dave Murdock, Business Development
[dmurdock@fiberondecking.com](mailto:dmurdock@fiberondecking.com)

Phone: 614-761-0643

www.fiberondecking.com
Stunning low-maintenance products backed by a premium quality warranty.
Sediment and erosion control products made from Pre and Post-Consumer Content
WHO WE ARE

A USA based business
Our company utilizes sustainable practices through recycling and reusability.

WHAT WE DO

GeoHay products provide solutions for erosion and sediment control along with the absorption of heavy metals and hydrocarbons.

Key Applications
Clockwise from upper left:
- Water Filtration
- Ditch & Dam Checks
- Industrial Containment
- Boundary Protection

Contact: Kellyn Hargett • (864) 472-7000 • Info@geohay.com
www.geohay.com
Interface® is the worldwide leader in design, production and sales of environmentally-responsible modular carpet for the commercial, institutional, and residential markets.

Who we are (Vision)
Interface will be the first company that, by its deeds, shows the entire industrial world what sustainability is in all its dimensions: People, process, product, place and profits — by 2020 — and in doing so we will become restorative through the power of influence.

Business Profile:
- Established 1973
- Circa 4,000 Employees
- Global Sales of 1 Billion
- Present in 110 Countries

Contacts:
Eric Nelson
Phone: (404) 877-5026
e-mail: Eric.Nelson@interface.com
Website: www.interface.com
“By definition, we are the world’s largest designer and maker of carpet tile. By reputation, we are a company of ideas and courage.”

Duo & Trio is a pairing that captures all the elements at the heart of any classically designed space. Duo and Trio are made with post-consumer recycled content fiber and a recycled content backing. Both offer a total of 62% total recycled content, 35% of which is post-consumer.
FLOORING GROUP

INVISION  kinetex
### Who we are:

J+J Flooring Group is a diversified commercial flooring manufacturer with a focus on broadloom and modular carpet along with textile composite flooring that meets the needs of a variety of market sectors.

### Business Profile:

- Established 1957
- 800+ Associates
- 3rd generation family-owned
- Privately held
- Global Sales

### What we do (mission):

We engineer our flooring offerings with a steadfast commitment to design, quality, service, integrity and sustainability. We deliver excellence and personal service and we hold a precise focus on serving the commercial carpet market.

### Contacts:

Russ Delozier  
email: russ.delozier@jjflooringgroup.com  
Phone: 706-529-2100

www.jjflooringgroup.com
**eKo® modular backing**

eKo is J+J’s high performance PVC-free, recyclable modular backing system. eKo features less embodied material than PVC backing which means less embodied energy. Manufactured using more than 40% pre-consumer and post-consumer recycled content, eKo is NSF 140 Platinum Certified and is designed to be closed-loop recyclable.

**Encore® SD Ultima® Nylon**

J+J has engineered and extruded our own solution-dyed nylon since 1991. Not only does solution dyeing require significantly less energy and water than wet dyeing processes, but the fibers feature bleach resistance and light fastness which contribute to the finished product’s longevity and durability. Because Encore SD Ultima contains a minimum of 25% pre-consumer recycled nylon, we use millions fewer pounds of virgin nylon feedstock each year.
LOS ANGELES FIBER
**Who we are:**
We are a family business committed to producing the highest quality products from recycled post-consumer carpet.

**What we do:**
We collect post-consumer carpet and produce: PA 6.6 Nylon Fiber, PA 6 Nylon Fiber, Polypropylene (PP) Fiber, Polyester (PET) Fiber, Garnet Grades, Card Grades, Air Lay Grades.

**Business Profile:**
- Established 1983
- 68 Employees
- Privately Held

**Contacts:**
Doug Williams
Phone: (323) 589 -5637
E-mail: dougw@lafiber.com
Website: [www.lafiber.com](http://www.lafiber.com)

**www.lafiber.com**
“We are a family business committed to producing the highest quality products from recycled post-consumer carpet.”
<table>
<thead>
<tr>
<th>Who we are:</th>
<th>Business Profile:</th>
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</table>
| Manufacturer of residential and commercial resilient sheet, LVT, VCT, laminate, engineered hardwood & porcelain tile floors, as well as commercial carpet and rubber. | • Established 1915  
• 2,500 Associates  
• 9 US manufacturing locations  
• 4th generation & privately held |

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<tr>
<th>What we do (mission):</th>
<th>Contacts:</th>
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</thead>
</table>
| “To Be The Best People To Do Business With In The Flooring Industry” | Dave Kitts  
email: dave_kitts@mannington.com  
Phone: 856-339-5871 |

www.mannington.com
Actions Speak

Clear and straightforward: focusing on what we as a flooring company can do to increase our operational efficiency & product performance while decreasing our use of resources & impact on our surroundings.

Infinity® RE

Infinity® RE carpet products contain a minimum of 30% total recycled content including 14% post-consumer. Source=recycled carpet

Relay® RE

Relay® RE - commercial resilient sheet with 35% recycled content - 20% post-consumer & 15% pre-consumer. Source=recycled carpet

Our Commitment to Sustainability:
http://www.mannington.com/Corporate/Sustainability.aspx
<table>
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<tr>
<th>Who we are:</th>
<th>Business Profile:</th>
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| Nycon Corporation is the premier manufacturer and supplier of reinforcing fibers for concrete, asphalt and plastic applications. | • Established in NA in 1980  
• 11-50 Employees  
• Privately Held |

<table>
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<tr>
<th>What we do:</th>
<th>Contacts:</th>
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</table>
| We make fibers including: nylon, green, polypropylene, steel, PVA, fiberglass and macros. | Contact: Paul Bracegirdle  
e-mail: bracegirdle@nycon.com  
Phone: (215) 369-1520 |
Fiber reinforcement supports an unlimited number of concrete applications including:

- Residential
- Commercial
- Industrial
- Precast
- More...

Heldridge Panels with MDM Fiber 106
Who we are:

We are a family run company originally servicing the bedding and furniture industries for 75 years.

What we do:

Today Reliance is the first company to produce a synthetic carpet cushion made from 90% post-consumer carpet material. Additional products: needled felt pad, automotive insulation, noise abatement, concrete curing, oil and moisture adsorption and oil spill clean-up.

Business Profile:

- Established 1931
- 20 Employees
- Privately Held

Contacts:

Bob Reiss
Phone: (323) 321-2300
bob@reliancecarpetcushion.com
www.reliancecarpetcushion.com

www.reliancecarpetcushion.com
“For the last 10 years Reliance has been one of the largest recyclers of post consumer carpet in the world.”
<table>
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<tr>
<th><strong>Who we are:</strong></th>
<th><strong>Business Profile:</strong></th>
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</thead>
</table>
| Shaw Industries Group, Inc. manufactures and/or supplies carpet, hardwood, laminate, resilient, tile and stone flooring products and synthetic turf to residential and commercial markets worldwide. | • Established in 1967  
• The world’s largest carpet manufacturer  
• 23,000 associates worldwide  
• A wholly owned subsidiary of Berkshire Hathaway, Inc. |

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<th><strong>What we do:</strong></th>
<th><strong>Contacts:</strong></th>
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</table>
| Shaw aims to create a better future: for our customers, for our people, for our company and for our communities - through great people, great products, and great service. Always. | Contact: Paul Murray  
e-mail: Paul.Murray@shawinc.com  
Phone: (706) 275-2238 |

[www.shawfloors.com/carpet](http://www.shawfloors.com/carpet)
**EcoWorx**
Shaw’s Cradle to Cradle PVC-free carpet tile backing includes 44% recycled content is fully recyclable back into more EcoWorx backing at the end of its life.

**Eco Solution Q Premium Nylon**
Shaw’s Cradle to Cradle Eco Solution Q premium branded nylon contains 45% recycled content and can be recycled back into more Eco Solution Q at the end of its life at Shaw’s Evergreen Nylon Recycling facility in Augusta, Georgia.

To learn more about Shaw’s post-consumer recycling efforts, visit: [http://shawfloors.com/about-shaw/carpet-recycling](http://shawfloors.com/about-shaw/carpet-recycling)
<table>
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<tr>
<th><strong>Who we are:</strong></th>
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<tr>
<td>Tandus Centiva’s unique line of LVT, hybrid resilient, modular, broadloom and woven flooring products offer a true fit-for-purpose approach to enhance spaces for learning, working, healing and living.</td>
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<tr>
<th><strong>Business Profile:</strong></th>
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<tr>
<td>• Parent Company: Tarkett</td>
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<tr>
<td>• World Leader in Flooring and Sports Surfaces</td>
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<td>• 10,000+ Employees</td>
</tr>
<tr>
<td>• 38 Production Sites in Over 100 Countries</td>
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<tr>
<th><strong>What we do:</strong></th>
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<tr>
<td>With industry-leading product design, unrivaled service and a commitment to environmental and social stewardship, Tandus Centiva provides the ultimate flooring experience.</td>
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<tr>
<th><strong>Contacts:</strong></th>
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<tbody>
<tr>
<td>Contact: Russell Bennett</td>
</tr>
<tr>
<td>Email: <a href="mailto:rbennett@tandus-centiva.com">rbennett@tandus-centiva.com</a></td>
</tr>
<tr>
<td>Phone: 800-241-4902 x 2690</td>
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</table>

[www.tandus-centiva.com](http://www.tandus-centiva.com)
ER3®, standard on Tandus modular carpet, has a 100% recycled content backing containing pre and post consumer recycled carpet recycled in Tandus’ third party certified carpet recycling process.

ER3 modular carries an ANSI/NSF-140 Platinum rating and has 45 to 67% overall recycled content (depending on style) including a minimum of 20% post consumer carpet.
**Who we are:**
A leader in the production of uniquely colorful and high-quality, solution-dyed synthetic filament-based fibers for the flooring, transportation, and performance textile industries.

**What we do:**
Manufacturer product lines that include Nylon 6, Nylon 6,6, PTT, and PET in both single colors and multi-end specialties.

**Business Profile:**
- Privately held
- Based in Bristol, VA
- SCS, ISO 9001 and 14001

**Contact:**
Brendan McSheehy
email: brendan.mcsheehy@universalfibers.com
Phone: 276-645-9758

www.universalfibers.com
Refresh Fiber®
The first carpet fiber in the world combining Nylon 6,6 with post-consumer recycled carpet fiber and permanent stain resistance in a broad color palette of 284 trend setting colors.

Using recycled carpet fiber diverted from U.S. landfills, Universal Fibers® is the first and only fiber manufacture to produce postconsumer solution-dyed nylon 6,6 carpet fiber in a broad color line, and with permanent stain resistance.
Economical
More cost-effective than virgin nylon

Ecological
Made from post-consumer carpet

EcoLon™
High-performance automotive material

FROM CARPET TO CAR PARTS
**Who we are:**
The world’s largest carpet & nylon recycler

**Business Profile:**
- Established in Europe in 1971
- Privately held
- 650 Employees
- Located in Johnsonville, SC

**Vision:**
We will create value together by diverting 200 million pounds of carpet from landfills per year by 2015

**Contacts:**
e-mail: customerservice@wellmaner.com
Phone: 800-821-6022

[www.wellmaner.com](http://www.wellmaner.com)
1) Carpet is collected and sorted into Nylon 6 and Nylon 66 (both are used) 

2) Through dry grinding/shredding, calcium carbonate and latex are removed 

3) **Patented** wet separation process extracts nylon to then be extruded into an unfilled PCR pellet 

   - **Testing on every batch:** 
     - Ash content
     - Contamination
     - Moisture & Viscosity

4) Using unfilled PCR nylon pellet feedstock, **EcoLon™** is compounded on twin screw extruders 

   - **Testing after Compounding:** 
     - Ash content, Density, DSC, Flexural, HDT, Impacts, Moisture, Tensile, Viscosity (RV), PP
Collection/Recycling Locations

http://carpetrecovery.org/collector-finder/index.html
CARE

12 years of working with carpet recyclers in partnership with the industry, states, consumers, and NGOs.

www.carpetrecovery.org