

At the end of a carpet's useful life, Shaw will recycle the material through one of the following methods:

- Cradle-to-Cradle Recycling
- Waste-to-Energy Recycling
- Downcycling

While cradle-to-cradle recycling is the most sustainable option, not all carpets can be recycled in this manner. Downcycling and waste-to-energy recycling are transitional strategies that Shaw employs until more sustainable solutions can be implemented.

### **Cradle-to-Cradle Recycling**

Shaw has a fully operational cradle-to-cradle recycling system in Cartersville, Georgia for its polyolefin EcoWorx<sup>®</sup> backing. EcoWorx is separated from the nylon face through an elutriation process, and the polyolefin is returned directly to the extrusion process to become more EcoWorx backing of equal quality and value. To ensure EcoWorx stays in this perpetual loop, Shaw will pick up any EcoWorx product at no charge to the customer, and recycle it into more EcoWorx. Not only does this save the end user on shipping and landfill tipping fees, it reduces the use of new raw material.

### **Waste-to-Energy Recycling**

Shaw employs the use of waste-to-energy recycling as a transitional strategy for disposing of used carpet until additional cradle-to-cradle products and solutions can be implemented. The waste-to-energy process combusts waste at furnace temperatures exceeding 1800 degrees Fahrenheit, thereby destroying pathogens, bacteria, and toxins while conserving natural resources and providing a new energy source.

Every one ton of post-consumer carpet processed:

- Displaces 1.6 barrels of oil
- Displaces 0.0012 acre-feet in landfill space
- Saves 2,000 lbs of carpet from the landfill
- Produces 0.60 MWHrs of electricity

### **Downcycling**

Downcycling provides another lifecycle for used carpet material before it reaches a landfill. This method of recycling shows the cycle of waste rather than eliminating it. Programs exist for nylon 6,6 carpet to be downcycled into non-carpet products such as car parts. Shaw uses third party processors to downcycle PVC backed products.

The Shaw Evergreen nylon facility provides a closed-loop solution to Solution Q premium branded nylon by utilizing proprietary technology to recover caprolactam, the basic building block of Type 6 nylon from post-consumer carpet. This makes a significant step toward achieving a cradle-to-cradle vision.

Evergreen was originally built in 1999 as a joint venture between Honeywell and DSM, and was later purchased by Shaw Industries. As a result of Shaw's investment and subsequent operational improvements of the facility, the company recycles nylon 6 as a "technical nutrient," meaning it will continually circulate as a pure and valuable material within a closed-loop industrial cycle.

Evergreen will also be part of an efficient post-consumer carpet collection system that will divert more than 100 million pounds of carpet from landfills annually - enough to stretch a 12-foot roll of carpet from New York to Paris.



Shaw's Evergreen Recycling Facility - Augusta, Georgia