



TECHNICAL BULLETIN

The Recyclability of Type 6,6 Nylon

There is a misconception in the marketplace that type 6 nylon is more recyclable than type 6,6 nylon. This is inaccurate. Type 6 and type 6,6 nylon are both recyclable at any stage of production, as pre-consumer waste or post-consumer waste, back into carpet fiber and other high-value products.

Typically, two processing methods can be used to recycle post-consumer fibers – either **chemical** or **mechanical** recycling. One widely used method for type 6 nylon is a **chemical process**, whereby the polymer is chemically de-polymerized and broken down into its monomer components using a multi-step process. It is then re-polymerized for use. The **mechanical process**, which is typically used for type 6,6 nylon but also may be used for type 6 nylon, takes the polymer, cleans it and then simply pelletizes it for further use.

INVISTA recycles pre-consumer and post-consumer type 6,6 nylon back into fiber every day. Antron® Legacy™ nylon is available with a minimum of 97% pre-consumer recycled content on a special order basis. Antron® Lumena™ solution dyed nylon is available with TruBlend™ fiber technology, which contains 30% recycled content (25% pre-consumer and 5% post-consumer). Both content claims are certified by SCS Global Services, an independent third party.

The key point to remember is that both polymer types, type 6 nylon and type 6,6 nylon, are recyclable. Manufacturers choose different methods of recycling for certain reasons and it's up to the manufacturer to evaluate the environmental impact of their selected method.

While both nylon types are recyclable, specifying professionals may choose to evaluate the environmental merits of different polymers using additional aspects. Selecting products that are **durable and long lasting can lead to fewer replacements, less waste and reduce the need for recycling in the first place**. When a carpet retains its appearance longer, it will stay newer looking longer and its usable life may be extended.

All Antron® North American fibers are currently certified as an Environmentally Preferable Product (EPP) by SCS Global Services. In 2002, Antron® Lumena™ fiber and Antron® Legacy™ fibers were the first to receive the prestigious EPP Certification and since then, have been re-certified multiple times. Environmentally Preferable Products are defined by U.S. Executive Order 13101 (replaced by EO13423) as products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. According to SCS Global

Services in December 2012, to be certified as environmentally preferable, the product must perform equal to or better in every category of potential environmental impact than other products serving the same function, with no environmental trade-offs.

INVISTA has a heritage of more than 70 years of nylon manufacturing experience and proprietary technology in fiber formation. We continue to invest in new polymer and fiber technologies and have a long-term commitment to the carpet fiber business. Type 6,6 nylon is a building block with which INVISTA continues to innovate, so carpets of Antron® nylon will have exceptional style and will perform even in the most punishing interior environments.

For more information, visit our web site at antron.net.

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**All test results and claims made in this technical bulletin are based upon a representative sample of carpets manufactured and sold in North America. Individual results may vary.*