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SUSTAINABLE SOLUTION

MSYG introduces polyester yarns that biodegrade through CiCLO® technology



By Glenna B. Musante

Polyester is possibly the world's favorite fiber when it comes to manufacturing performance wear and other apparel. Polyester is durable, can be engineered to provide multiple performance characteristics, wears well, is in good supply and designers love it.

But polyester and other synthetic fibers can also contribute to land and water pollution.

This, however, is about to change.

A company called Intrinsic Advanced Materials, LLC, has developed a technology called CiCLO® that allows polyester fibers to break down in landfills and the ocean at rates comparable to a natural fiber like wool. Intrinsic Advanced Materials was formed to develop and commercialize innovative and sustainable solutions for the textile industry. Their team is made up of scientists, engineers and textile industry veterans who are outdoor enthusiasts and feel passionately about protecting the planet.

Parkdale Advanced Materials, Inc., the innovative fibers and yarns division of Parkdale Inc., and Intrinsic Textiles Group, formed Intrinsic Advanced Materials, a joint venture, to bring CiCLO® Sustainable Textile Technology to market. Parkdale Inc. is the world's leading manufacturer of spun yarns.

Meridian Specialty Yarn Group, Inc. (MSYG) is now offering polyester yarns processed with CiCLO® technology. This includes yarns with CiCLO® technology for the hosiery markets, initially for performance and hiking socks. Yarns with CiCLO® technology are also available from MSYG for medical PPE including medical gowns, lab coats, medical setting curtains and other medical textiles typically made from polyester.

"We first learned about CiCLO® through Parkdale, with whom we have a longstanding relationship," said Stephen Hudson, senior vice president,



Specialty Markets at MSYG. "After a few initial conversations with Parkdale and a joint meeting and presentation, we enthusiastically decided to begin offering this breakthrough product.

"It was immediately clear to us that CiCLO® technology offers a solution to one of the major environmental concerns related to synthetic fibers," he added. "It has the potential to change the way fibers are produced in the future throughout the textile industry and since its introduction, our customers have responded enthusiastically."

Yarns with CiCLO® technology can be treated with antimicrobials proven effective at reducing exposure to viral infections and have the same beauty, wear-ability, durability, functionality and performance characteristics consumers expect from polyester. At the same time, when thrown away, CiCLO® yarns reduce the persistence of synthetic textile accumulation in landfills and synthetic fiber fragments in the ocean.

"Our goal is to create large-scale, positive environmental change by making CiCLO® fibers as accessible as possible," said Andrea Ferris, CEO of Intrinsic Advanced Materials. "MSYG has been an excellent partner to help achieve this goal through introducing CiCLO® technology to hosiery and PPE manufacturers. Both are high-volume textile categories that require high-performance polyester. Now, with CiCLO® and MSYG, manufacturers in those industry sectors have an end-of-life solution for their polyester products."

MSYG's CiCLO® technology yarn is processed in the United States at the company's new manufacturing plant in Valdese, N.C. The facility, which opened in July 2019, is the most modern and up-to-date dyehouse in the U.S. and equal to, or better than, any other yarn dyeing operation worldwide.

The new plant has been engineered to use dramatically less water and power than comparable textile operations and generates much less effluent as a byproduct of the dyeing and drying process. The result is a high quality polyester yarn with all of the performance and PPE characteristics brands, consumers and front line medical professionals rely on – but with a verifiable sustainability story and reduced environmental impact.

"Our introduction of yarns with CiCLO® technology represents a breakthrough for the performance apparel, hosiery and PPE industries, which have been looking for sustainable alternatives to traditional synthetic fabrics," said Tim Manson, president of MSYG. "Fabrics made from yarns with CiCLO® technology can be treated to have the same performance characteristics as the synthetic fibers and yarns now widely used."

The chemistry used to create CiCLO® fibers is ECO PASSPORT by OEKO-TEX certified, and Intrinsic Advanced Materials is a member of both the Textile Exchange and the Outdoor Industry Association. Extensive testing by reliable third party laboratories over several years has proven that CiCLO® technology fibers and yarns are effective at reducing synthetic fiber accumulation in landfills and microfiber pollution in the oceans.

"The partnership between MSYG and CiCLO® technology is very complimentary," Hudson said. "We have a new state-of-the-art dyehouse designed to vastly reduce environmental impact and CiCLO® technology addresses a long standing environmental issue with synthetic fibers."

Learn more at www.CiCLOtextiles.com and at www.msyg.com.



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