

# The Latest Fiber Innovation Yields Multi-Tasking Denim

By [Judith Russell](#) October 23, 2018



CREDIT: Cordura

Once the exclusive domain of cotton, denim is now an area of fertile innovation and tremendous growth opportunity for man-made fibers, too. The renewed interest in what goes into the clothing consumers wear, and how it can improve their lives, has inspired synthetic fiber and fabric makers to develop some of the most comfortable, eco-friendly and high-performing denim the industry has seen.

Rivet caught up with several of the industry's leading specialty synthetic fiber producers to get their perspectives on evolving consumer demands and how aesthetics, performance and sustainability are figuring into the next generation of hybrid textiles for denim and other casual bottom weight fabrics.

## Active lifestyle

The comfort and ease-of-movement qualities that consumers got accustomed to during the athleisure boom have become the price of entry for denim makers.

“Make no mistake—performance textiles are here to stay,” said Susan Lynn, global sales and marketing director for Fibervisions, which makes CoolVisions dyeable polypropylene. “We’re seeing significant interest in CoolVisions fiber for its inherent softness, easy dyeability and performance attributes.”

The product's benefits have been attracting the attention of urban dwellers, commuters, business travelers and outdoor enthusiasts, according to Lynn.

In its research, Fibervisions found today's young urbanite wants apparel that balances form and function by incorporating fabrics that are comfortable, lightweight, packable and faster-drying than all-cotton denim. And unlike earlier versions of polypropylene fiber, which were limited by the necessity to solution dye at the spinning source, CoolVisions works well with complementary fibers and dyes easily in fabric form.

According to Lynn, CoolVisions outperforms other fibers when it comes to moving moisture and drying quickly, and it's also durable and abrasion resistant, which gives it greater longevity and an ideal sustainability profile. What's more, its cradle-to-factory carbon footprint is among the lowest of all synthetic fibers.

CoolVisions is being used by Taiwan weaver Da Kong for its line of cotton-blend denims in varying weights and by HerMin in styles blended with cotton and nylon.

### **Beyond durability**

The demand for style and comfort is hardly limited to the fashion space. Even consumers who wear denim for more practical safety and protection purposes want their jeans to look and feel good. And the trend has resulted in a spate of new product development at Invista's [Cordura](#) nylon division.

"In 2010, Cordura was the first fiber brand to launch technical performance denim, a natural progression from our military fiber heritage," said Cindy McNaull, Cordura global brand and marketing director. "We worked with denim mill Artistic Milliners and apparel brands in the core 'protection' segments of workwear, motor cycle clothing and climbing gear."

McNaull explained that as the demand for durability expanded beyond those early adopters to more style-driven segments like children's jeans, skateboarding pants, outdoor apparel and women's workwear, comfort and aesthetics have become more important.

The newest generation of Cordura denim is actually a co-development with Cone Mills that combines the strength and durability of Cordura with the exceptional stretch and recovery of Cone S-Genie high-performance dual-core technology. The resulting fabrics have a softer hand and more comfortable fit—as well as the durability and quality standards Invista's Cordura brand demands. The range will be offered in authentic indigo and black colors in a range of weights from 10.75 ounces to 11.75 ounces, with varying stretch, from 14 percent to 32 percent.

The best technical denim fabrics today, according to McNaull, are those that contain what she calls the "hidden science" of durability. These fabrics don't "scream in your face," but do their job behind the scenes, while softness, light weight and great stretch and recovery remain front and center. Carhartt, Dovetail, Levi Strauss & Co. and Marmot are some of the brands McNaull considers to be taking performance to the next level of style and comfort for denim.

### **Performance plus**

As consumers' lifestyles become increasingly varied, they want their denim to do more to suit.

"We are living in an era of what some call the '24/7 life,' for which we need multitasking apparel that can take us from early in the morning until late at night without compromise of comfort or style," said Pierluigi Berardi, VP of global marketing at [Nilit](#), maker of Sensil premium nylon 6.6.

Nilit is working with several mills, including Brazil-based Vicunha Textiles, on performance bottom weights that combine the authenticity of denim with the performance and aesthetic features of Sensil premium nylon 6.6. The resulting fabrics have an appealing drape and luster, a soft, light hand, plus inherent colorfastness and moisture management. Specialty variants of Sensil, like Breeze offer cooling properties, Heat offers warming properties, Innergy provides a dose of muscle invigoration, Aquarius adds moisture transport to its list of properties, and the BodyFresh variant of Sensil provides added odor-resistance.

"Summer jeans fabrics made on cotton warp with filling yarns containing Sensil Breeze reduce the body temperature by an entire degree, providing a cool and comfortable option for travel, casual Fridays, and everyday city life," Fabianne Pacini, Nilit's marketing manager for Latin America said, commenting on what's become one of the most appealing Sensil performance products. "The benefit is so evident that consumers feel the freshness as soon as they touch the garments."

The Vicunha fabrics have created lots of excitement in denim-obsessed Brazil. And Nilit's Berardi sees summer jean fabrics taking off in the U.S. and Europe, too.

“The lighter weight, enhanced aesthetics and superior performance benefits of Sensil in denim will give today’s savvy, multitasking consumers a solid return for their investment by providing jeans that feel great, look great, and make their lives better without harm to the planet or its inhabitants,” Berardi said.

## **Sustainability 2.0**

Denim is also starting to embrace its more sustainable side.

According to Tricia Carey, [Lenzing](#)’s director of global business development, which produces Tencel fibers, younger consumers who value sustainability are behind a big push for eco-friendly innovation.

“There are 80 million millennials in the USA driving sales of denim,” Carey said. “They are seeking comfort and great fit, and they want to know how and where their jeans are made. They are becoming aware of environmental impacts and want to buy from authentic companies they can trust. It is easy for the consumer to spot an imposter that is only greenwashing.”

In 2017 Lenzing launched Tencel x Refibra branded lyocell fiber, made from pulp collected from post-industrial cotton waste that’s combined with wood pulp for softness, sustainability and high tensile strength. Refibra is also fully traceable. With a fiber identification added in the production process, Refibra can be detected in fiber, yarn, fabric or garment form—even with blended fiber contents.

Refibra technology is Lenzing’s latest step in advancing a more circular process to avoid adding to the global glut of post-consumer waste. And the concept is catching on quickly.

“In a short 18 months we were able to bring programs to consumers with more than eight global retail partners, including Country Road, DL1961, Inditex (for Zara), Eileen Fisher, Mara Hoffman, Marc O’Polo, Patagonia and Reformation,” Carey said. “That’s not only true innovation, that’s true commercial innovation.”

Carey attributes this success to moving beyond fiber to the consumer value proposition.

“At Lenzing, we do not just make fiber. We go from ‘fiber to storytelling’ for brands and retailers,” she said. “We package the entire product for the retailer, telling the value proposition to the consumer, going beyond ingredient branding to drive consumer purchase.”