



THE ASSOCIATION & VOICE OF THE US SEWN PRODUCTS INDUSTRY

SEAMS Member Spotlight: Fibre52

In our latest edition of SEAMS Member Spotlight, Fibre52 is highlighted. Company President Laura Thornquist answers our questions.

Company headquarters: Houston, Texas

Year founded: 2022

Primary specialties:

Fibre52 is all about embracing cotton's natural properties. The patent-pending process and chemistry revolutionizes the Prepare for Dye and dye stages of cotton-rich fabrics. The Fibre52 process is holistic from prep to dye, and mill tests around the globe show it's consistently repeatable. Using far less time in the wet processing stage, our process has seen trial results with up to 70% reduction in water usage, up to 40% less electricity used, and up to 40% reduction in CO2 emissions compared to traditional processing.

Brief company history:

"Fibre52 is the brainchild of textile scientist Graham Stewart. Graham is an industry veteran, growing up in dye houses and then working in wool production for decades. During various opportunities, he experimented with cotton, and he realized he could improve cotton wet-processing in a sustainable manner.

"Through a chance encounter, Graham met the leadership team of Houston-based Energy Ogre, a Texas electricity management company. With a common passion for improved technologies, it was a perfect match. The group spent two years perfecting the intellectual property and filing patents, and commercialized in December of 2022.

"Because Fibre52 drastically cuts down electricity and water use, word quickly spread and so too did the staff at Fibre52 to support the inquiries. Since then, Fibre52 has grown from a team of two to 14 quickly, with employees in Houston, the Carolinas, Tennessee, Italy, Bangladesh and Pakistan. Team members conduct trials in the U.S. and throughout the world, fine tuning the way Fibre52's process can benefit both brands and mills. With the support we've had from brands, major industry associations and learning institutions, we're happy to say Fibre52's team of textile chemists is bringing a better, more sustainable cotton to the world."

Roots of the "Fibre52" name:

"Fibre52's name pays homage to the 52 chromosomes that make up the cultivated cotton grown in the U.S. and other countries around the world. As we all know, it can be tough to come up with a unique company name, and it turns out, there are lots of cotton themed company names out there. We loved the idea of honoring the science of cotton with the number 52, and as far as the British spelling, that's a nod to Graham and his English roots."



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Markets served:

“Fibre52 is set up to work on a global scale, although we would really prefer having quick adoption in the USA. We believe that by partnering with brands and mills, we will significantly reduce water, electricity, CO2 emissions, and effluent. Furthermore, those who embrace our final cotton fabric will introduce a unique and innovative product to the market, unlike anything previously available.”

Challenges and opportunities:

“Let’s start with the challenges. The textile industry is traditionally resistant to change due to its 24/7 production nature, which makes it difficult to introduce new technologies. It’s often a struggle to get significant time to run trials. Second, our technology is so simple, many mills don’t believe what we purport or think they already have a similar sustainable practice, i.e. bioscouring, which is not the same. But seeing is believing, and we are taking this challenge on one mill and one brand at a time.

“The opportunities for Fibre52 are vast. To begin with, our cotton fabric possesses inherent softness and superior durability to conventionally processed cotton. It’s also versatile, capable of being naturally hydrophobic or hydrophilic like traditional cotton. The resulting fabric also has some unique comfort features, as sweat drops vaporize and permeate through the fabric, ensuring a prolonged, comfortable, skin-like temperature for longer periods. We consider it ultra-comfort cotton.

“Meanwhile, there is a growing demand for sustainable and environmentally friendly textile products. As Yogi Berra states, ‘You don’t have to swing hard to hit a home run. If you’ve got the timing, it’ll go.’ Timing is on our side as we offer an easy, customizable, cost-effective way to build sustainability into the current manufacturing processes without added machinery. The process is consistent with current textile and fashion industry sustainability certification programs. So, it offers the ability to give brands a supply chain partner that supports and adds to their sustainability stories. For mills, it’s a complete win as they spend less money on energy usage, water bills and managing toxic effluent.

“Another opportunity comes in helping brands solve for regulations around PFAS guidelines. As we know cotton is biodegradable, and our process uses natural, non-toxic, bio-product and results in a natural soft hand feel. There are no fluorocarbons nor PFAS chemicals intentionally used or added to our process.

“One of the most exciting things we’re launching is a lifecycle analysis calculator on Fibre52.com. This will allow potential partners to put in information, such as fabric quantities, bath drops, liquor ratios, etc. and they’ll instantly see how using Fibre52’s process compares to their traditional one. We want to actively participate in the fashion world’s goals of having more sustainability, transparency and traceability, and we think this calculator will be another step toward that.”

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Company differentiators:

“Within Fibre52, our emphasis lies on team members who possess not only a solid educational foundation but also an unwavering commitment to driving change within the textile industry. The journey of startups is undeniably challenging, yet equally invigorating. It demands a specific mindset, and we are fortunate to have a team of dedicated individuals who are true believers in our mission. That being said, our team members are good at playing devil’s advocate and often don’t ‘buy-in’ until they see our process for themselves. For example, one of our proudest moments is when we brought on a consultant, he insisted on running his own Fibre52 trial before he could advocate for it. He was truly impressed that the process could be done with only one or two bath drops.

“Externally, we continue to highlight our main difference, which is using bio-friendly products instead of traditionally harsh chemicals in the PFD and dye process of cotton-rich fabrics. We want to make it clear we’re not trying to reinvent the wheel, we just want to make it more bio-friendly and sustainable. Our process and chemistry allow for lower temperatures, fewer bath drops and less time while resulting in a more sustainable, durable and comfortable cotton.”

Thoughts on the Made-in-America/Americas movement and strategy to remain competitive in the U.S. and this hemisphere:

“America is a leader in world cotton production, and we know how abundant cotton is in our everyday lives. It’s important that it remains to be true. As the world looks to reduce plastic and microfiber pollution, cotton is a natural resource that can play a major role.

“We believe Fibre52 can give American manufacturers a competitive edge on a global-scale. We would take amazing pride in having a Made-In-America cotton product that includes Fibre52 in the wet-processing. What a great American story we could tell on a truly sustainable cotton product from land to label!”

Biggest challenges and opportunities for manufacturing in the USA and the Western hemisphere:

“We know firsthand through trials that the USA and the Western Hemisphere face challenges related to global competition with lower labor and production costs. We also recognize stringent environmental regulations in Europe and Western countries can also increase production costs and impose compliance challenges to textile manufacturers.

“However, the USA and Western hemisphere have a unique opportunity to be sustainability leaders in the market. By adopting eco-friendly practices and materials, they can meet the ever-increasing demand for sustainable products by consumers and brands. In addition, being geographically closer to North American and European markets can lead to shorter lead times and faster responses to changing consumer demands, which stands to be a competitive advantage.



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“Fibre52 is uniquely positioned to offer this region big sustainability callouts, all while reducing a brand’s production time and commodity cost, and increasing their output capabilities in a cost neutral manner.”

Business outlook for the company for the foreseeable future and future growth plans:

“As a start-up company, we are pleased at the level of interest in our technology and are laser-focused on consistently delivering successful trials. We understand that the adoption of new technology takes time, and we are patient as brands and mills evaluate our process. With ongoing, successful trials under our belt, we are confident that there is room for us in the textile industry. Presently, we are in collaboration with several brands, aiming for product releases in the spring of 2025.

“As to where we can grow? We’re not putting limits on ourselves because we believe in the significant impact we can have in the industry. Consumers want more sustainable fashion, and we offer a solution that doesn’t come at the end of life for the garment but in the beginning stages.

“Furthermore, we see additional growth opportunities on the horizon, including the launch of additional patent-pending processes that extend beyond cotton. We are particularly excited about these developments.”

Thoughts on business conditions, the health of the apparel/textile/sewn products industry markets served and factors for successful in this environment:

“Fibre52 has witnessed a deceleration of wet-processing business primarily in the global market. From our perspective, we are still seeing a steady stream of business, although a bit slower than 2022 in the Western Hemisphere.

“We believe the robust growth witnessed in 2021 and the initial half of 2022 was fueled by a surge in consumer demand within the fashion sector, following the release of pent-up COVID-related constraints. However, inflationary pressures and geopolitical factors have taken their toll on the industry, resulting in an excess of goods as consumer demand recedes. The final quarter of 2023 might present some challenges, but we hope for a revival in demand in 2024.

“In reality, a reduction in production presents an opportune moment for us to conduct trials of our new process in mills, as we can get the time and attention of decision makers. This allows us to demonstrate how Fibre52 enhances productivity, while simultaneously reducing commodity costs.

“One of the primary factors contributing to our success is the versatility and level of customization inherent in our process. We love learning more about the needs and goals of brands and mills, and then provide solutions through our process and chemistry that seamlessly integrate with traditional operations. Having a dyer with 50 years of experience on



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our team has proven invaluable as his extensive knowledge along with a few ‘tricks up his sleeve’ lead to a better, faster and sustainable wet processing of fiber.”

The value of being a SEAMS’ member:

“SEAMS is genuinely centered on providing support and fostering connections. Having worked across various industries, including my most recent role in the energy sector, I can attest that I’ve never encountered a community as genuinely supportive as this one. We are very grateful for the kindness from the SEAMS community as new kids on the block and sincerely hope that Fibre52 can reciprocate this support as we continue to expand within this industry.”