

# Standard Fiber

S U S T A I N A B L E   T E X T I L E   A N D   M A T E R I A L   T E C H N O L O G I E S





**E**lements  
of **P**erformance™

Our textiles and material technologies have been divided into five **Elements of Performance** categories – *Wellness, Comfort, Protection, Design* and *Sustainability*. We do more than manufacture innovative bedding products. We invent them.

**WELLNESS** 

Our smart fabrics incorporate organic cottons, vegetable dyes, allergen barriers, odor reducing and anti-static technologies. If you sleep better, you feel better.

**PROTECTION** 

Protect your investment with our unique barrier constructions and functional fabrics.

**DESIGN** 

Our new innovative designs will bring color, texture and function to your bedding products.

**COMFORT** 

Providing the best night's sleep through temperature and moisture management, airflow and support.

**SUSTAINABILITY** 

Our sustainable collection of natural fibers and yarns from post-consumer recycled materials are better for the environment and meet upcoming retailer requirements.

# BIOBASED ANTIMICROBIAL TREATMENT



The treatment helps prevent microorganisms and fungi that are ever-present in today's harsh environment.



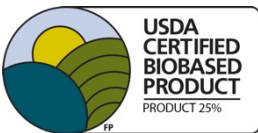
- Biobased antimicrobial is a topical fabric treatment developed to prevent and remove odor molecules and microbes.
- Safe and sustainable by using natural materials such as minerals, ceramics, and biopolymer-binders without chemicals, metals, and synthetic binders.
- Tested under ASTM E2149 with 99.99% bacteria reduction
- 100% biobased, including chemical and binder
- EPA approved antimicrobial



# BIOBASED FOAM



Biobased foam is manufactured from polyurethanes that include renewable materials instead of petroleum.



- Utilizing agriculture by-product rice straw to create the polyurethane foam
- Help reducing air pollution from field burning of rice straw
- Reduces greenhouse gases such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O)
- Low VOC, no odor
- USDA Bio-Preferred certified

# CARBON NEGATIVE POLYESTER



Groundbreaking technology to make polyester fiber from carbon harvested from waste gas.

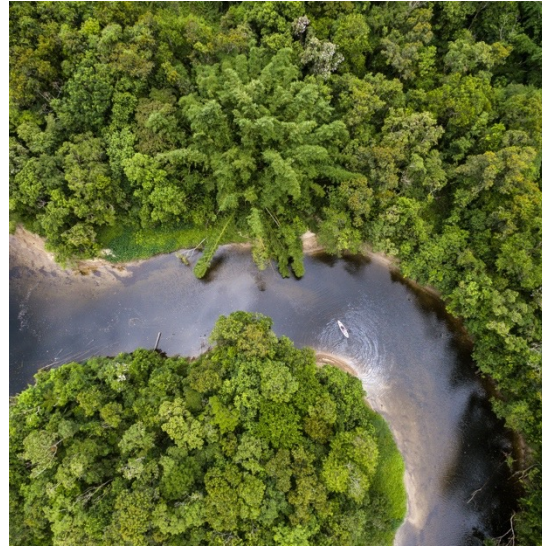


- 30% bio ethylene glycol content from waste gas
- Reduction of carbon emissions
- Similar performance compared with petrol-based polyester
- Match the requirement for sustainability and eco-friendly

# CARBON REDUCTION PROGRAM



Standard Fiber’s carbon reduction program offsets the carbon emissions of transporting thousands of cargo containers of textiles from port to port. Carbon offsets are purchased for all shipping containers managed by Standard Fiber from Asia and India to customers in the U.S. and 20 other countries around the world.



## AgroCortex REDD

Protect 720 sq miles of Amazonian Rainforest Ranked #1 Offset Project by Environmental Finance Certified by VCS, SocialCarbon, and FSC



## Tribal Renewable Energy

Operated through US DOE Office of Indian Energy Converts Tribal Lands to Renewable Energy Sources This Offset focuses on Tribal Lands in Oregon.

- Carbon offsets will fund accredited carbon reduction programs such as protecting rainforest ecosystems from deforestation in Brazil and renewable energy programs on tribal lands in the US.
- For Audited or Carbon Neutral Certified entities, we can provide a transfer of the Carbon Offset, to the customer, for 2022 (avail Q2 2023).
- Carbon Offset Agent - Bonneville Environmental Foundation (B-E-F)
- Auditor and Validator - SBC



# COMPOSTABLE PACKAGING SOLUTIONS

PLA NON-WOVEN



Ingeo/Poly-lactic Acid (PLA) is made from starchy plants like corn, sugarcane, or beets, grown in the U.S. Starch from these plants is processed into a biopolymer that looks, acts, and performs like petroleum-based plastics.



- Polymer created from corn, cassava, sugar cane or beets
- Complies with TUV “OK to compost” standard
- Can be made into fabrics and fibers
- Lower carbon footprint, low fossil energy
- USDA BioBased certified

# COMPOSTABLE PACKAGING SOLUTIONS

COMPOSTABLE BIOPOLYMER



Made from PBAT (a compostable biopolymer) and PLA (polylactic acid) from sugarcane ethanol, this material surely takes the sustainability to a new level.



- Polymer created from sugarcane and PBAT
- Compostable and can break down in industrial composting
- Can replace vinyl and other plastic bags
- Tested under DIN EN 13432



# ECOSPUN™ FIBERS AND YARNS



EcoSpun™ reduces the persistence of textiles pollution in the environment by allowing synthetic (plastic-based) fibers to behave more like natural fibers, such as wool, when they become environmental pollutants.



- 92% less persistent in the waste stream in sea water 592 days vs. 3% for comparable untreated fiber
- 91% less persistent in the waste stream in landfill 1,278 days vs. 6% for comparable untreated fiber
- Mechanical and durability characteristics of fibers and fabrics maintained

# H2ECO™ TEXTILE FINISHING PROCESS



A collection of printing, dyeing, bleaching and finishing process that uses no water, or very little water.



- It takes 2,700 liters of water to produce one cotton t-shirt – equivalent to 2.5 years of drinking water for one person.
- Helps to reduce water stress and pollution one step at a time



# MICROBAN™ ANTIMICROBIAL PROTECTION



Integrated into fabrics during the finishing process, it protects from odor-causing bacteria, mold, mildew, and fungus for the product's life. It's an excellent application for all basic bedding, mattress pads and toppers, pet bedding, and more.



- Standard Fiber preferred supplier
- 25 years of antimicrobial protection—inhibits growth of odor causing bacteria
- Durable 25-50 HL
- Compatible with other technologies
- EPA registered
- OEKO-TEX certified

# MOVE AND COOL BIOBASED

## WICKING AND SOFTENING



Moisture management technology based on plant materials. The biobased finish enables high wicking and evaporation capability and helps evaporate water and sweat easier and faster.



- Bio content: +85% vegetable ingredients (ASTM D6866-20)
- Helps textiles evaporate water/sweat easier and faster, for drying time saving, and cool & dry comfort
- Plant based ingredients - Biodegradable (OECD 301B): >60% (28 days)
- Wash durable technology which can last 30 washes
- Works perfect with post-consumer recycled regenerated synthetic fibers and all other fabrics



# PURISSIMO ALLERGEN CONTROL



Based on encapsulated probiotics, which are natural microorganisms like those you can find in probiotic yogurt. As the probiotics consume the allergens, exposure in the environment is gradually reduced to below threshold levels.



- Natural allergen control technology that cleans up pet dander, dust mite, and pollen allergens in textiles throughout the home.
- Gradual release & long-lasting effect
- Wash-durable for up to 20 cycles
- Environmentally and skin friendly
- Patented technology
- Natural technology, probiotics use allergens as a food source

# SEAQUAL® FABRICS

POLYESTER FROM OCEAN PLASTICS



Seaqual® yarn is a high-quality 100% post-consumer recycled yarn made of ocean waste and transformed into approximately 10% Upcycled Marine Plastic (from plastic marine litter) and 90% post-consumer PET from land sources with full traceability.



- Approximately 10% of the material used in the fabrics comes from the ocean
- Contains a 'DNA tracer' for the presence of Upcycled Marine Plastic
- High-quality polyester
- Breathable
- Lightweight
- More ecological
- Regenerative production system with full traceability along the supply chain



# SUPRELLE® BLUE RECYCLED FIBERFILL



Suprelle® Blue is a premium recycled fiberfill made from social plastic bottle flakes provided by the world-renowned Plastic Bank.



- 6D batted fluff with stable loft and movable softness
- Unique 4-hole structure provides better fiber structure stability for ultimate firm support in pillows and more air flow throughout the fibers for better insulation in comforters
- Plastic Bank diverts the flow of plastic from the ocean by establishing a collection system in under-privileged coastal regions with poor waste systems. Their mission is to reduce ocean plastic while reducing poverty by empowering communities to recycle through collection in exchange for money, goods or services



# TONES OF COOL BIOBASED PCM



Tones of Cool® Bio is a patented cooling technology that stimulates the textile to dissipate redundant heat from the body and to instantly reduce the body temperature. The PCMs are sourced from renewable, biobased materials.



- Instant cool sensation: excessive heat leaves the body easily and quickly, causing the deep sleep phase to come faster.
- Smart heat exchange: fewer awakenings. The body suffers less from night sweats, resulting in a longer-lasting, healthier, and more comfortable sleep.
- Breathability is maintained because air and water vapor can continue to run through the fiber mesh.
- BioSource certified by independent labs.
- Lower flammability than conventional PCMs





**STANDARD FIBER**

INNOVATIVE TEXTILE SOLUTIONS