CiCLO®

Biodegradable Technology

SYNTHETIC TEXTILES CAN SHED MICROPLASTIC FIBERS. FIBERS MADE WITH CiCLO® TECHNOLOGY ARE DESIGNED TO REDUCE HOW LONG THOSE MICROPLASTIC FIBERS PERSIST IN THE ENVIRONMENT.

Designed For Impact. Made To Perform.

CiCLO technology combines environmental purpose with commercial performance. Designed to reduce microplastic fiber persistence, it integrates into existing manufacturing while maintaining fiber dyeability, durability and recyclability across a wide range of applications.

CiCLO Technology Differences

Seamless Integration
Drops in, requiring no changes to manufacturing processes.

Effortless Scalability
Meets production needs easily from small batches to mass-scale operations.

Upholds Performance
Maintains durability, dyeability, and recyclability without compromising performance.

Functional Compatibility
Integrates seamlessly with other functional technologies and sustainable fibers.

Available Globally
Active and integrated supply chain in major textile manufacturing regions.

Versatile Application
Suitable for home and hospitality textiles, apparel, trims, and more.

Engineered For Synthetic Fiber, Everywhere.

CiCLO formulations are versatile and commercially available across a range of polymers for staple fiber, filament yarn and nonwoven material production, making their applications virtually limitless.

- Virgin & recycled polyester (post-consumer bottles & T2T)
- Bio-based polymers
- Virgin & recycled nylon

The masterbatch is compounded in the U.S. and Asia, with fibers and yarns available in 20+ countries.

Authentic Transparency. Verified Traceability.

CiCLO technology is an authentication program that requires all fiber producers to validate the presence of CiCLO unique tracers in every batch they manufacture, ensuring consistency and trust throughout the supply chain.

Our R&D team is continuously developing new CiCLO applications, delivering additional solutions to reduce microplastic pollution across our ecosystem.

Powered by Parkdale Advanced Materials

CiCLO technology is marketed and supported by Parkdale Advanced Materials, a division of Parkdale, Inc.

Parkdale brings fiber and polymer expertise, R&D, manufacturing, and commercialization resources to support CiCLO technology across the global supply chain.

20+ Countries with Trusted Partners

20+ Home Textile Manufacturers

50+ Global Certified Manufacturers (staple & filament)

60+ Global Brand & Retail Partners

80+ Global Fabric Manufacturers

SCAN TO LEARN MORE

ciclotechnology.com

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How CiCLO® Technology Supports Circular Manufacturing

CiCLO® technology is a nature-based technology embedded into fibers, integrating seamlessly across circular manufacturing with ease and versatility. It is designed to reduce the persistence of microplastic fibers shed into the environment during circular production, use, reuse, and end-of-life. Compatible with rPET, textile waste, and bio-based polymers, and does not interfere with the chemical or mechanical recyclability of fibers or fabrics.

CiCLO® Polyester Fibers Fully Biodegrade

Polyester made with CiCLO technology help reduce microplastics that show up in the environment from synthetic textile shedding.

In Seawater

3.7 years

ASTM D6691 data shows CiCLO polyester biodegraded* 94% compared to 5% for conventional polyester in 1,362 days.

In Wastewater Sludge

2.6 years

ASTM D5210 data shows CiCLO polyester biodegraded* 90% compared to 0% for conventional polyester in 952 days.

In Soil

3.2 years

ASTM D5988 data shows CiCLO polyester biodegraded* 91% compared to 3% for conventional polyester in 1,170 days.

In Biologically Active Landfill

3.5 years

ASTM D5511 data shows CiCLO polyester biodegraded* 91% compared to 6% for conventional polyester in 1,278 days.

* Achieving ≥ 90% in respirometry tests is considered full biodegradation. The remaining percentage can be attributed to biomass. Further analysis has been conducted to confirm no microplastics left behind. Data is summarized from studies conducted by third-party labs using ASTM Test Methods. Visit ciclotechnology.com for more information and detailed test data.

Science Behind The Technology

When CiCLO fibers are exposed to moisture and microorganisms in environments such as seawater, soil, wastewater sludge, and biologically active landfills, the microbes recognize the material as a nutrient food source. They form colonies, secrete enzymes, and break down the fiber. Over time the fiber is fully mineralized into natural elements, leaving no microplastics behind.

SAFE CHEMISTRY

ALL COMPONENTS REACH compliant CiCLO

OEKO TEX® ECO PASSPORT 17.0.14110 HOHENSTEIN HTTI www.oeko-tex.com

THIRD PARTY TESTED

ASTM ISO

Product Applications

Home & Hospitality

- BATH & AREA RUGS
- BED & DECORATIVE PILLOWS
- MATTRESS TICKING
- PLUSH BLANKETS
- SHEETS, DUVETS, COMFORTERS
- TOWELS
- UPHOLSTERY FABRICS
- UTILITY & FASHION BEDDING
- WINDOW & BATH CURTAINS

Apparel, Fashion, & Outdoor

- ATHLEISURE
- ACTIVEWEAR
- FAST FASHION
- PERFORMANCE APPAREL
- SWIMWEAR
- WORKWEAR & DENIM

Made to last, not here forever.™

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