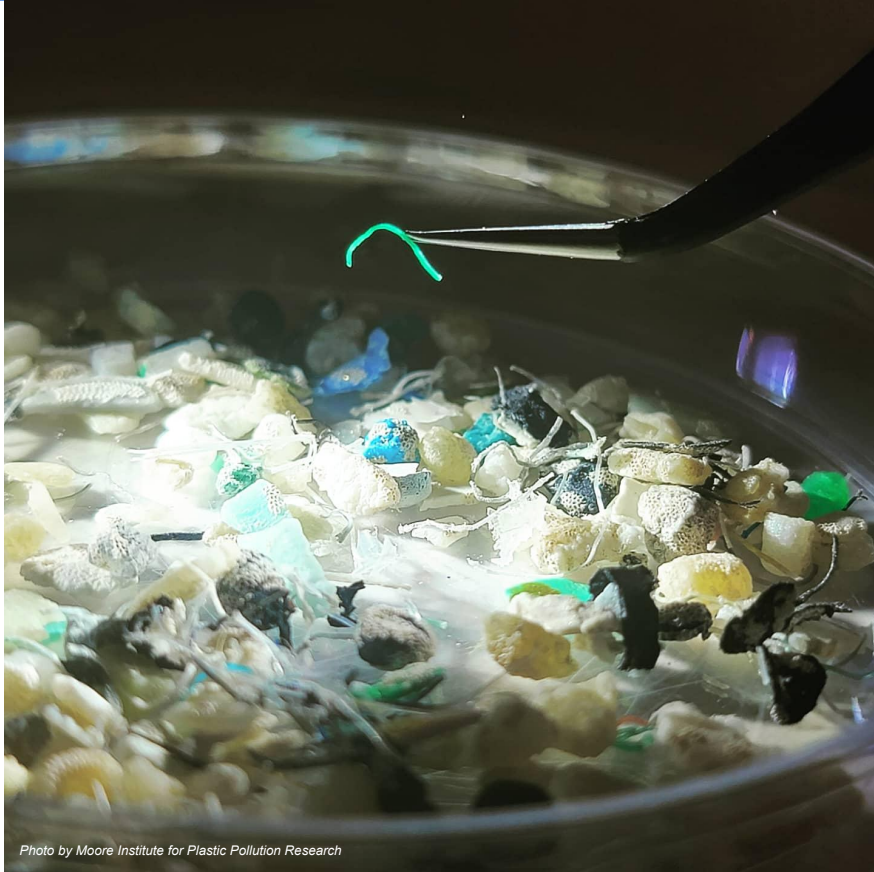


The background of the advertisement is a horizontal split. The left half shows a close-up of water with a rainbow-like iridescent sheen, containing numerous small, colorful, fiber-like pollutants. The right half shows a deep blue, clean body of water with a smooth, wavy surface. The text is overlaid on this background.

CiCLO[®]

a NOW solution to END forever

Helping brand reduce synthetic
fiber pollutants from living on our
environment forever



Synthetic microfibers are a major source of microplastics polluting our environment.

- **10s of thousands, up to millions**, of microplastics are **ingested** in our lifetimes¹.
- **18 million** microfibers may be released **per wash** cycle from textiles².
- **35%** of ocean microplastic pollution comes from synthetic microfibers, equal to **50 billion plastic bottles** annually³.
- **65%** of the global market is dominated by **synthetics**⁴.

THE PRODUCTS

Home goods produced with synthetics are preferred for their durability and affordability. However, they contribute to synthetic microfiber shedding and are challenging to recycle.

Products made with CiCLO® fibers tackle this environmental challenge by enabling products to be biodegradable at their end-of-life.

- **Bedding:** Polyester sheets and comforters shed microfibers during washing and regular use.
- **Rugs & Carpets:** Synthetic rugs release fibers through everyday wear and cleaning.
- **Pillows:** Polyester-filled pillows shed microplastics as they age and are discarded.
- **Towels & Linens:** Towels and linens shed microfibers during washing and drying, increasing microfiber pollution in waterways.



Bedding



Rugs & Carpets



Pillows



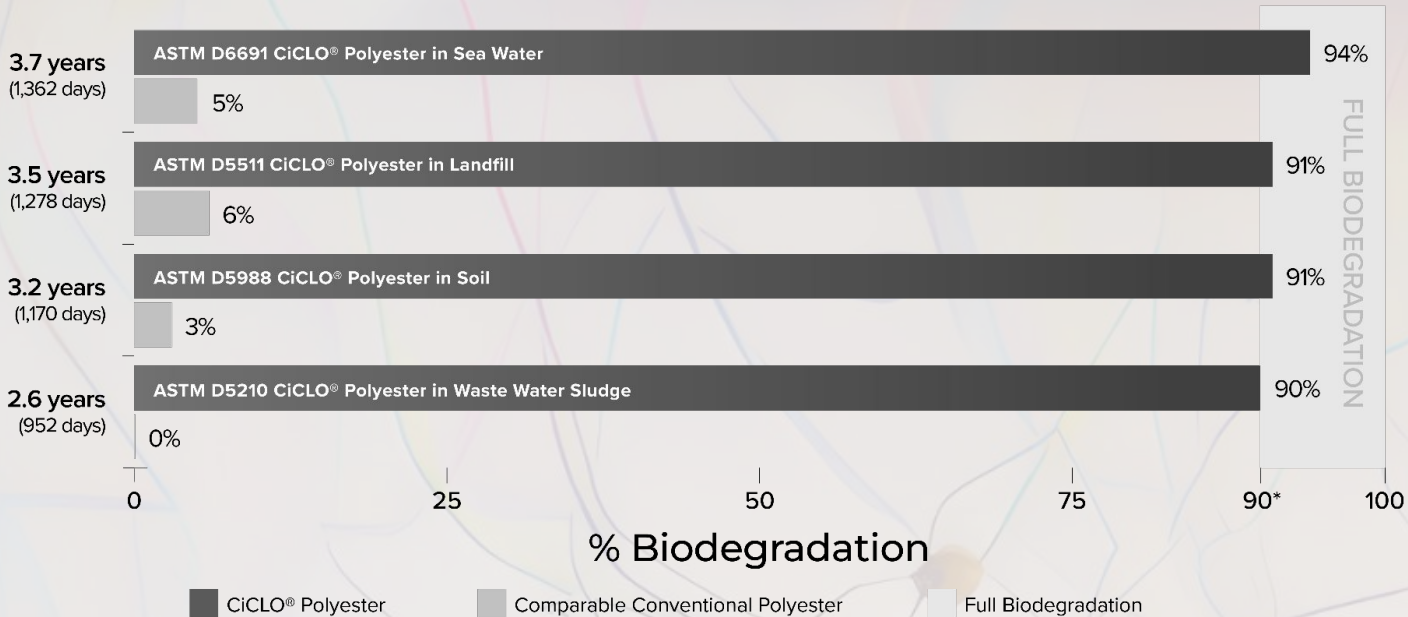
Towels & Linens

What is the CiCLO® Technology?

- Dosed at 2% during melt extrusion, embedded in the plastic matrix, will never wash off.
- Blended with virgin, rPET flake, T2T rPET and biobased polyester & nylon.
- No change to fiber, yarn or fabric manufacturing process.
- Compatible with other technologies and fibers.
- No loss of durability or performance characteristics, and recyclability maintained.
- Biodegradation is only activated when exposed to moisture and microbes over time.
- The only proven solution to biodegrade in 4 end of life environments- WWT sludge, soil, landfill, and seawater.



CiCLO® Polyester v. Comparable Conventional Polyester



Remaining percentage attributed to biomass.

No microplastics leftover.

* 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 3rd party labs using ASTM. Visit ciclotextiles.com for more information and detailed test data.

How does it Biodegrade?

Moisture

+

Microbes

+

Time

=

Conditions for Biodegradation

Biodegradation does not activate during use or care

01

Microbes seek out food source (carbon)

for metabolism and secrete enzymes that break bonds

02

Moisture dissolves materials, breaks down

simple bonds (hydrolytic scission) and allows enzymatic action

03

Larger molecules become smaller

macromolecules > oligomers > monomers

04

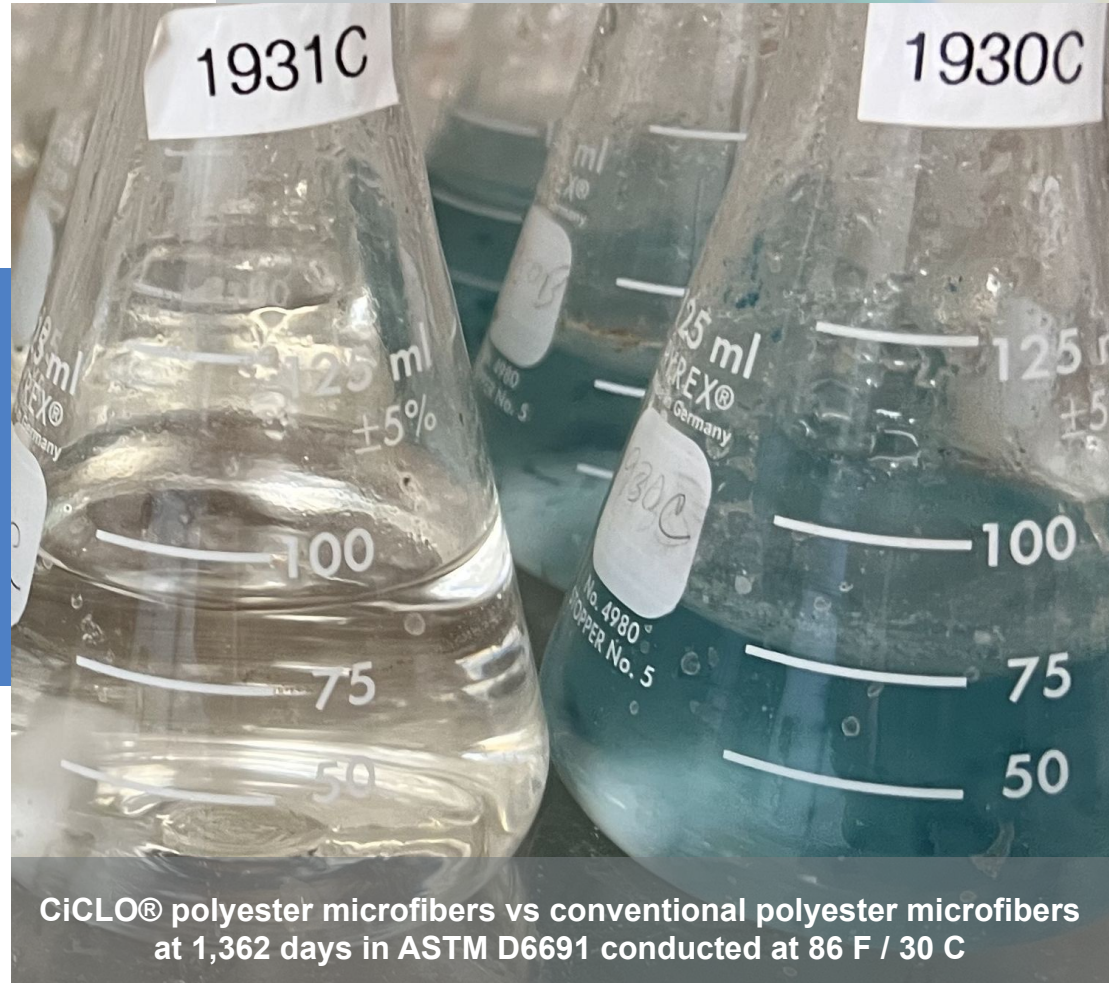
Microbes digest smaller molecules

sequestering carbon in biomass and respire gas

THE TESTING

CiCLO® Technology is proven through rigorous testing, utilizing the Best Available Test Methods to ensure reliable and validated results.

- ASTM & ISO Test Methods
- Established by technicals teams representing academia, commercial labs, industry
- Systematically reviewed and updated, D6691 published '01, revised '09 and '17
- Methods include aerobic and anaerobic environments, as well as temperatures ranging between ambient (68 F / 20 C) and thermophilic (125 F / 52 C)



**CiCLO® polyester microfibers vs conventional polyester microfibers
at 1,362 days in ASTM D6691 conducted at 86 F / 30 C**



Designed to integrated with ease across
existing supply chains





- Integrates seamlessly with other technologies and sustainable fibers.
- Drop-in solution requiring no changes to manufacturing processes.
- No loss of performance properties, maintaining durability and recyclability.

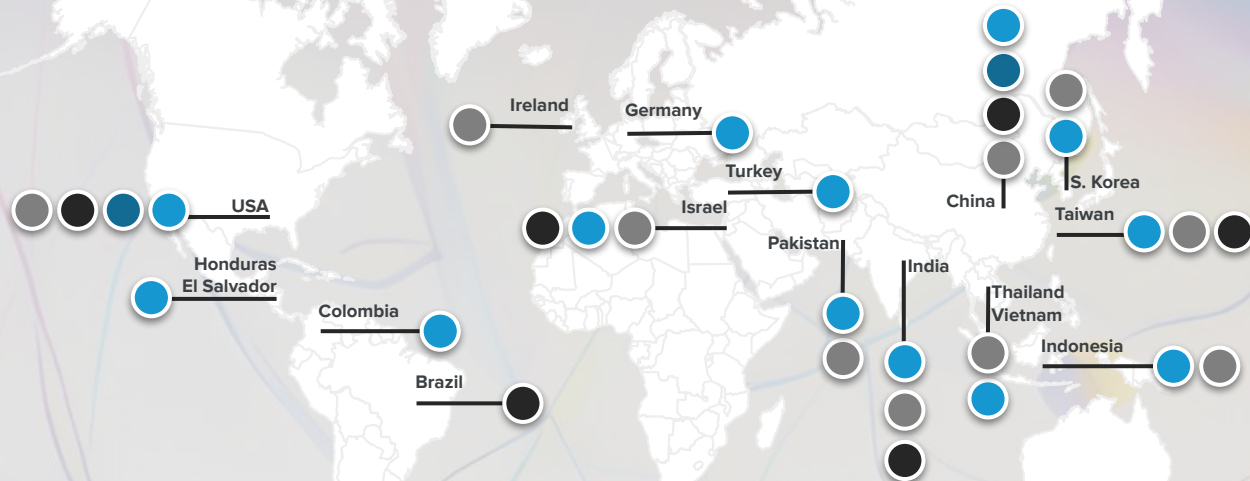


Where is CiCLO® Fiber Manufactured?

- CiCLO® Masterbatch manufactured in USA & Asia
- Solutions for Batch & Continuous Polymerization Processes
- Distributed Globally
- Assured Supply

Global Certified Manufacturers

-  Polyester Filament
-  Polyester Staple Fiber
-  Nylon Filament
-  Nylon Staple Fiber



Versatile applications:



Apparel



Activewear



Medical



Socks



Swimwear



Rugs



Bedding



Upholstery



Automotive

How is CiCLO® Fiber Proven?



CERTIFIED

- CiCLO® is proven through rigorous testing, using the Best Available Test Methods to ensure reliable and verified results.
- REACH compliant, meeting EU standards to protect health and the environment from harmful chemicals.
- Chemistry used to make CiCLO fibers is OEKO-TEX® ECO PASSPORT certified.
- Safe and non-toxic to marine and plant life.



TRACEABLE

- CiCLO® fibers undergo 3rd party testing for unique tracers, verifying presence and dosage.
- CiCLO Certificates of Authenticity (CCOA) are issued to Certified Manufacturers and used by mills, brands, and retailers.
- CCOA documents ensure CiCLOfiber traceability and authenticity throughout the supply chain.



TRUSTED

- CiCLO® global fiber testing follows ASTM and ISO test methods set by technical teams from academia, commercial labs, and industry.
- Methods cover various environments and temperatures, reviewed and updated regularly.
- Tested by trusted, reputable third-party labs ensures reliability, including Intertek and Bureau Veritas.



RESPONSIBLE

- CiCLO® fiber offers a proven, simple solution to reduce microplastic pollution.
- Delivers end-of-life solutions for products made with "forever fiber" synthetics.
- Committed to assisting partners in responsible manufacturing amid industry scrutiny.
- Responsible consumer marketing compliant with regulations and NGO standards.



Verified Results in Globally Accredited Laboratories



Eden Research Laboratory



Trusted by Brands & Retailers



CiCLO® Preferred Partner Products

Industrial, Healthcare, Hospitality
& Automotive industries

LiUnitex
INTERNATIONAL, INC.





BARMOPS



SHOP TOWELS



APRONS



TOWELS



MICROFIBER



TABLE LINENS



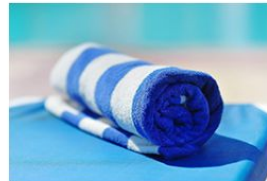
BED LINENS



MOPS



**LAUNDRY BAGS &
STANDS**



POOL/BEACH TOWELS

UNITEX INTERNATIONAL IS YOUR ALL-IN-ONE RESOURCE

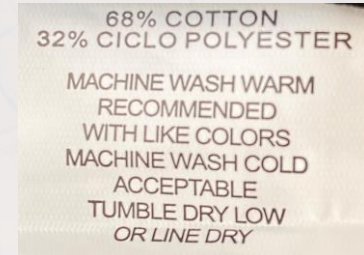


Responsible Collaboration

Helping brands cross-promote the value
and benefits of CiCLO® fibers.

What consumer facing claims can be made?

- Focused on end benefit of microplastic pollution reduction.
- Nothing vague or misleading, i.e. 'green' or 'eco friendly'.
- No mention of "biodegradable" on product or hang tags.
- Substantiated with testing and data to back the claim, accessible online.
- Marketing guidance and brand assets available upon co-marketing agreement and verification of participation in the CiCLO® traceability program.



CiCLO® Co-Branding Examples



McDonald's • Following
Restaurants

McDonald's crew uniforms are getting a more sustainable makeover! 🍷 Thanks to **CiCLO® Textiles**, a new, breakthrough textile ingredient, the polyester used in select crew aprons, jeans and T-shirts at restaurants across the United States will now biodegrade at rates comparable to wool.

Learn more about these outfits and how partners, like our uniform supplier, are the key to unlocking our sustainability ambitions: https://lnkd.in/gMBgs_t8



Dressed to Impress: McDonald's Debuts New, More Sustainable Uniforms in the U.S.

corporate.mcdonalds.com • 3 min read



McDonald's invests in sustainable team uniforms that makes synthetic fibers biodegradable

As part of its growing company-wide sustainability goals, McDonald's announced Friday the investment in new sustainable team uniforms. The new crew uniforms will be made with CiCLO technology, which allows synthetic materials like polyester to biodegrade at similar rates to natural fibers, like wool.

While polyester uniforms are generally preferred by fast-food companies for team uniforms because of their durability and washability, they shed plastic microfibers when being created and washed, which often will end up in our oceans and other natural ecosystems, becoming part of the estimated 358 trillion microplastic particles floating around in the oceans.

[Read More](#)



Uwila Warrior Partners with CiCLO Technology for Biodegradable Synthetics

BY LAUREN PARKER  JANUARY 24, 2024 7:00AM

Better Briefs undies and matching camisoles are created with CiCLO® technology

A patented and scientifically proven solution that allows synthetic textiles to behave more like natural fibers when they end up as pollutants in the environment, without compromising on durability. By choosing Better Briefs, **you're joining us on our journey to solve the problem of synthetic microfiber pollution.**



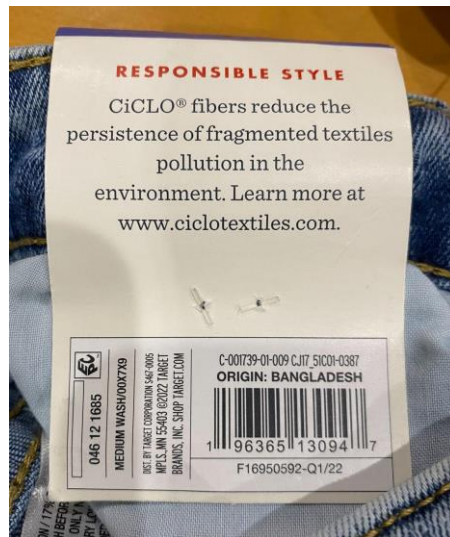
UWILA WARRIOR IS THE FIRST INTIMATES BRAND TO USE CICLO TECHNOLOGY. COURTESY



Undergarments have always had a **sustainability** problem. Pre-owned items can't be recycled or upcycled back into fashion, and most resale sites won't touch them.

Meanwhile, the elastics, polyesters and nylons in blends and trims slow down degradation at end-of-life. As a result, much of the 11 million pounds of underwear that gets tossed in the trash—every day—can languish in landfills for centuries.

CiCLO® Co-Branding Examples



CiCLO® Uniform and Healthcare

 welles



CiCLO® Technology

This breakthrough technology embeds nutrient spots in our recycled synthetic fibers. These spots attract microbes in the environment to consume the entire fiber, plastic included! Allowing the fabric to biodegrade in ocean environments and landfills.

Landau



Product Detail

Introducing the newest innovation from Landau - Landau forward. The Landau Forward Women's 2-Pocket V-Neck Scrub Top comes from a new range of performance-driven scrubs. Premium fabrics and activewear inspired design deliver style, comfort, and adaptability. Garments made with CiCLO sustainable textile technology are kinder to our planet, helping to reduce the accumulation of plastic waste in landfills and plastic pollution in our oceans.

BARCO®



The Rhythm Scrub Top from the Grey's Anatomy Evolve Stretch collection is your classic V-neck top with a new sleek look and flattering princess seams. Featuring two inset waist pockets and a pen pocket offering a clean and modern look. Made with recycled polyester and CiCLO® technology, the fabric is soft, stretchy, and breathable for all-day comfort.

CiCLO® Denim and Activewear

Definite Articles



Biodegradable: We use next generation, OKEO-TEX certified sustainable technology called CiCLO® that enables traditional yarns like nylon and polyester to behave like natural fibers when they end up as pollutants in the environment and biodegrade in two to three years rather than centuries.

LUCKY ♣ BRAND



Material Details

- OProtect DWR treatment repels water to keep fabric surface dry and comfortable
- Made with CiCLO® additive technology solution that allows synthetic fibers to behave more like natural fibers
- 4-way stretch provides freedom of movement and superior comfort

Spa Plush Bath Rug



THRESHOLD

LOOKS LIKE
HOME

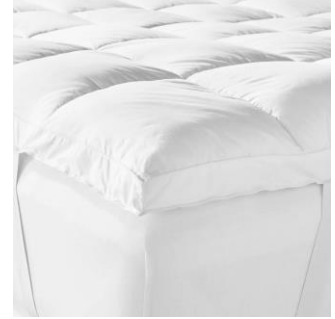
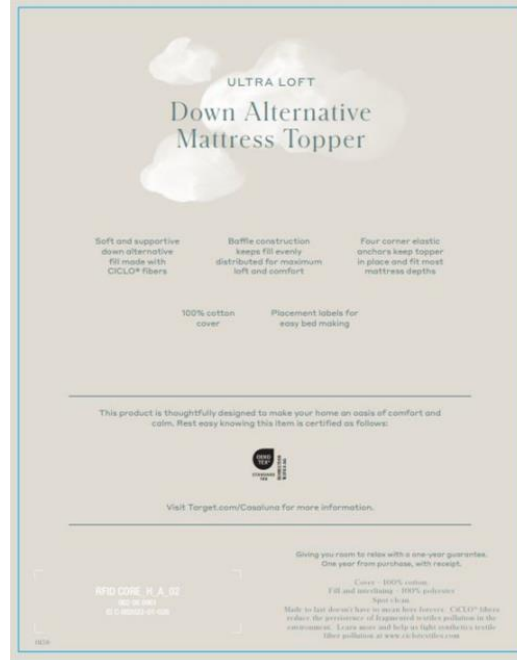
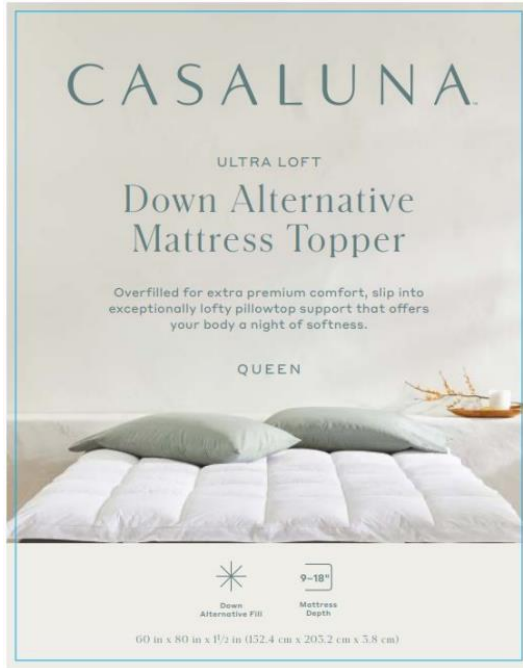


FEELS LIKE
YOU



https://www.target.com/p/24-34-x40-34-spa-plush-bath-rug-navy-threshold-8482/-/A-88145792?ref=tgt_adv_xsp&AFID=google&fndsrc=tgtao&DFA=71700000086346142&CPNG=PLA_Bath%2BShopping_Traffic_Local_Traffic%7CBath_Ecomm_Home&adgroup=SC_Fieldcrest+Luxury&LID=7000000001170770pgs&LNM=PRODUCT_GROUP&network=g&device=c&location=9019557&targetid=pla-1676018906860&gclid=CjwKCAjwY2qBhBDEiwAoQXK5fbSEKUgoMl-MsqKtt2HjdAQiYdnxyHHXOXSTnIC_G9aBf4lPcRCeRoCipgQAVD_BwE&gclid=aw.ds&preselect=88145792

Ultra Loft Down Alternative Mattress Topper - Casaluna™



My Signature Down Alternative Pillow & Comforter

bloomingdale's



Re-introducing the My Signature Pillow, exclusively at Bloomingdale's. Featuring a super soft 300 thread count breathable cotton cover and filled with a lofty and supportive alternative down, this pillow makes comfort personal. My Signature Pillow conforms to your head and neck for an extraordinary night's sleep unique to you.



<https://www.bloomingdales.com/shop/product/bloomingdales-my-signature-down-alternative-comforter-100-exclusive?ID=4910975>

<https://www.bloomingdales.com/shop/product/bloomingdales-my-signature-down-alternative-pillow-100-exclusive?ID=4911659&CategoryID=3865>



ciclo[®]

TRUSTED | TRACEABLE | TRANSPARENT

ciclotextiles.com