



BEYOND

SURFACE TECHNOLOGIES

**ADVANCING GREEN CHEMISTRY
SOLUTIONS FOR TEXTILES**



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SURFACE TECHNOLOGIES

We believe that delivering the best textile performance means designing environmentally positive chemistry for the textile industry.

Almost all apparel and textiles contain a finishing or treatment that adds performance attributes to a garment or textile product...

These finishes are traditionally made from non-renewable fossil fuels and hazardous chemicals, leaving a significant environmental impact per metre of fabric.

OUR MISSION – Working with Nature, not against it

We are creating radical change in the finishing sector of the textile supply chain by **advancing green chemistry solutions.**

Since 2008, we've developed innovative finishes and treatments made from **renewable raw materials** that enhance textile quality and performance, whilst setting the highest standard in reducing their environmental footprint.

WHO WE ARE

After working for decades at big chemical companies, a group of textile industry veterans wanted to approach textile chemistry innovation with environmental sustainability at the core of the business DNA. In 2008, we established Beyond Surface Technologies.

A BUSINESS MODEL TO IGNITE INDUSTRY CHANGE

Our unique business model operates under three core pillars: **environment, performance and cost**. Environment is a priority criteria because it drives innovation in the research and development of our products.

SUSTAINABLE SOLUTIONS THAT ARE "PLUG-AND-PLAY"

We work together with leading, mission-driven brands and textile mills around the world to develop ready-for-market applications that are easy to integrate into commercial production.

RESPONSIBLE INNOVATION & INTEGRITY

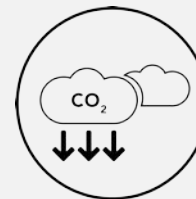
We strive for our products and ingredients to go above and beyond **the highest standards for environmental responsibility**, as recognized by the industry certifications and accreditations of our products.



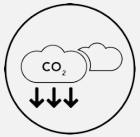
miDori[®]

A unique green chemistry concept for textile finishes

miDori[®] (the Japanese word for “green”) is our brand of textile finishes sourced from renewable, natural raw materials. Our revolutionary formulae achieves high levels of textile performance while radically lowering carbon emissions.



BEYOND'S GREEN CHEMISTRY PRINCIPLES RESULT IN:



Eliminates/lowers carbon emissions from the textile industry



Eliminates toxic hazards of the chemical industry



No dangerous levels of harmful substances are released into the air and water



Reduces energy use due to the elimination of fossil fuels



ADVANTAGES OF miDori[®]



ENVIRONMENT:

Safe and screened, environmentally positive chemistry from **renewable raw materials** such as:

- **Agricultural and algal products** approved for use in personal care products or food additives.
- **Waste products** from the production of other bio-based chemicals.
- **No GMOs and plants** that compete with food crops.
- Products with a **"bio" prefix** contain a minimum of 70% bio-carbon source. Current USDA threshold only requires 25% bio content.



COST & PERFORMANCE:

- **Same or better** than industry standard performance
- Developed for **a range of fibres and effects**
- **Plug-and-Play:** all our finishes are easy to integrate at the textile mill -- no special alterations required, no compromise on cost and environment



miDori® PORTFOLIO

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bioWick		bioDry		bioSoft		evoPel			
SYNTHETIC FIBRES		CELLULOSE & REGENERATED		ALL FIBRES		ALL FIBRES			
FOR WICKING		FOR WICKING & SOFTNESS		FOR SOFTNESS		FOR WATER REPELLENCY			
miDori® WA 1.0 100% MICROALGAE	miDori® WP 3.0 PLANT SEED	miDori® DP 1.0 PLANT SEED	miDori® DP 1.0 PLANT SEED	miDori® SP 3.0 PLANT SEED	miDori® SP 3.0 PLANT SEED	miDori® RP PLANT SEED	miDori® RP PLANT SEED		
> 70% BIO CARBON						< 70% BIO CARBON			
Up to 80% CO ₂ reductions		Up to 70% CO ₂ reductions		Up to 60% CO ₂ reductions		Up to 60% CO ₂ reductions			
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CERTIFICATIONS		CERTIFICATIONS		CERTIFICATIONS		CERTIFICATIONS			
<ul style="list-style-type: none"> • USDA Bio-Preferred • ZDHC Listed • ECO PASSPORT • LCA 		<ul style="list-style-type: none"> • USDA Bio-Preferred • ZDHC Listed • LCA 		<ul style="list-style-type: none"> • USDA Bio-Preferred • ZDHC Listed • ECO PASSPORT • LCA 		<ul style="list-style-type: none"> • USDA Bio-Preferred • ZDHC Listed • ECO PASSPORT • C2C Platinum 		<ul style="list-style-type: none"> • USDA Bio-Preferred • ZDHC Listed 	

bioWick with algae

The first microalgae-based wicking finish for synthetic textiles

BENEFITS:

- A revolutionary wicking finish for high performance textiles
- Innovative formula provides excellent durability and fast-drying properties, achieving state-of-the-art performance
- Performance comparison with bioWick product miDori WP 3.0 (Plant Seed)
 - 6-10% stronger *based on product testing of 25 different PES fabrics
 - 0-5% stronger *based on product testing of 15 different PA fabrics

MADE FROM:

100% microalgae oil, the first-ever in the industry. Microalgae oil is GMO free. Extracted from dried microalgae biomass and grown in controlled environments.

SUITABLE FOR:

Excellent for synthetic fabrics

SUSTAINABILITY:

- Up to 80% CO₂ reductions vs. similar performing, synthetic standard products.
- Highest biocarbon content of 100% in the miDori® group of products
- LCA on CO₂ footprint
- Lowest miDori® carbon footprint!



bioWick with plant seed

Wicking and drying finish for synthetic textiles made from plant seed oil

BENEFITS:

- A finishing technology for synthetic textiles that has high wicking power and is fast-drying
- Innovative formula that elevates textile performance and provides excellent durability

MADE FROM:

100% plant seed oil

SUITABLE FOR:

Excellent for synthetic fabrics

SUSTAINABILITY:

- Up to 70% CO₂ reductions vs. similar performing, synthetic standard products.
- 94% biocarbon content
- LCA on CO₂ footprint



Ø ZDHC

bioDry

An eco-friendly wicking finish for cotton that is soft, cool and re-hydrating

BENEFITS:

- Combines two critical performance attributes for cellulosic fabrics and blends: **wicking and softness**
- Enhanced comfort that maintains the softest quality and dry comfort of your cotton and blends
- Multi-purpose fabric softener for denim, bottoms, knits, shirts, etc.

MADE FROM:

Plant-seed based oils and palm oil-free active ingredients

SUITABLE FOR:

Cotton, blends and regenerated cellulose such as TENCEL™ and TENCEL™ Lyocell

SUSTAINABILITY:

- Up to 60% CO₂ reductions vs. similar performing, synthetic standard products.
- 76% biocarbon content
- LCA on CO₂ footprint

INSPIRING CONFIDENCE
ECO PASSPORT



Ø ZDHC

bioSoft

A soft and smooth finish for all fibres

BENEFITS:

- Lightweight, multipurpose formula
- Enhances comfort and wear
- Soft and breathable, with a smooth hand

MADE FROM:

Plant-seed based active ingredients and components from bio-waste streams

SUITABLE FOR:

Any fibre type including blends

SUSTAINABILITY:

- Up to 60% CO₂ reductions vs. similar performing, synthetic standard products.
- C2C Platinum, the highest standard in Cradle to Cradle Certified™ product design
- 72% biocarbon content



evoPel

A PFC-free, durable water-repellent for all fibres

BENEFITS:

- High performance and durability that protects fabrics from rain and water-based stains
- Does not use PFCs (perfluorinated chemicals), which has toxic effects on the health of humans and animals if released into our waterways.
- Versatile and environmentally-friendly solution

MADE FROM:

Partially-based plant seed, renewable sources

SUITABLE FOR:

Any fibre type

SUSTAINABILITY:

- 40-50 % biocarbon content



Ø ZDHC

WATER
REPELLENCY



THE **miDori**® LABEL

Using miDori® offers the chance to tell a story about how you deliver innovative, measurable reductions in CO₂ through your sustainable production choices.

The miDori® label and hangtag helps consumers to identify a brand's product as one designed for performance and created using green chemistry. By using innovative technology created from natural and renewable resources with the lowest environmental impact. miDori® is a mark of commitment to reducing carbon emissions and eliminating hazardous chemicals in production.

Contact us for more information about hang tags and labels.

miDori® is registered in EU, Turkey and Switzerland

BRAND PARTNERS



ARITZIA BANANA REPUBLIC



Splash



A DAY

COYUCHI

GANT

極度乾燥(しなさい)
Superdry.



Case Study: Adidas Football Jerseys Worn by German Winning Team at 2014 FIFA World Cup

Several years ago when Beyond Surface Technologies was still in the early stages as a startup, Adidas approached us expressing their interest in our green-based wicking finishes.

The conversation was eventually put on hold until 2013. This time, Adidas asked us to help develop their new jerseys for the **2014 FIFA World Cup -- the biggest annual sport event for the brand.**

"I remember them saying, 'If your green chemistry-based wicking finish performs at least as good as our best synthetic alternative on our new jerseys, we're on,'" recalls Matthias Foessel, CEO and Founder of Beyond.

After a year of thorough evaluation, our formula matched up to Adidas' performance expectations and our wicking agent was implemented on the jerseys of all the teams playing in Adidas. **The German national team won the title that year.**

Adidas subsequently implemented the wicking finish on most of their global football jersey lines. **In terms of sales that year, Adidas sold more than 8 million jerseys altogether, with the Germany jersey leading the way.¹**

¹ <https://www.adidas-group.com/en/media/news-archive/press-releases/2014/adidas-secures-clean-sweep-2014-fifa-world-cup/>

Beyond Surface Technologies is supported by Tin Shed Ventures™ by Patagonia

patagonia[®]

tin shed VENTURES™

Tin Shed Ventures is the corporate venture capital fund set up by Patagonia to help like-minded start-up companies that offer solutions to the environmental crisis. Originally launched as \$20 Million and Change in May 2013, Tin Shed Ventures partners with businesses focused on building renewable energy infrastructure, practicing regenerative organic agriculture, conserving water, diverting waste and creating sustainable materials.



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