

MICROBAN 

OEKO-TEX®
INSPIRING CONFIDENCE
ECO PASSPORT 

ECOFRESH™

Cutting-Edge Multidimensional Odor Control for Body, Environmental & Other Offensive Odorants

Who is Microban International?

Microban International is a global leader in built-in antimicrobial and odor control solutions.



Utilized by
800+
companies worldwide

Proudly displayed
on more than
1000 products

Recognized as an industry Trustmark, Microban® technologies are integrated by leading brands and manufacturers in over 50 countries, setting the standard for product protection and freshness.

Cutting-Edge Technology That Captures a Diverse Set of Odorants



Sweat/foot/body odor
Carboxylic Acids



Aging body odor
Aldehydes



Smoke odor
Aromatic



Fish odor
Amines & Sulfides

...and many more offensive odorants

Revolutionizing Odor Control

EcoFresh is a next-generation technology that captures a wide spectrum of body, environmental, and other offensive odorants—both within and on the surface of treated materials. Designed for multidimensional odor performance, EcoFresh delivers fast-acting, long-lasting odor control in even the most demanding environments.

Why EcoFresh?

Powerful, Lasting Freshness: Specifically engineered for active and outdoor apparel, EcoFresh ensures enduring freshness during wear and between washes.

Real-Time Odor Capture: Works instantly to capture odors as they occur.

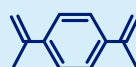
Superior Performance: Outperforms activated carbon fabrics while offering unmatched versatility across fabric types and colors.

Seamless Integration: Compatible with wicking aids and DWR finishes, preserving original fabric performance, breathability, and comfort.

Simple Application

EcoFresh can be exhausted, padded, or sprayed onto a wide variety of synthetic and natural fabrics. It's applied during the standard textile manufacturing process, requiring no additional steps or costly modifications.

Material Types



POLYESTER



POLYESTER RICH BLENDS



NYLON



SPANDEX



NONWOVEN



DOWN



100% COTTON



POLYPROPYLENE

PROTECTION THAT LIVES ON
MICROBAN 

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Microban International, Ltd.

How Does EcoFresh Work?

Applied during the manufacturing process, EcoFresh is a non-ionic solution that forms a protective finish on fabrics, actively attracting and trapping odor molecules to prevent textiles from emitting a wide range of unpleasant smells during wear and between washings. During laundering, EcoFresh releases the trapped odors, allowing them to be rinsed away effortlessly and helping fabrics stay fresher for longer.



Superior Odor Performance

EcoFresh is fully compatible with wicking and repellent technologies, enabling seamless integration across a wide range of end-use products—from base layers to outer shells.

Fabric	Example	Performance	Home Launderings	Odor Reduction Rate		
				IVA	Nonenal	Smoke
Knit (rPET)	Base Layer	Wicking	0	89%	83%	94%
			20	84%	76%	83%
Knit (CO/rPET) - 84/16	Sock	Wicking	0	99%	91%	99%
			20	98%	89%	95%
Woven (rPET)	Outer Shell	Repellent	0	89%	86%	98%
			20	80%	83%	95%



Comprehensive Odor Control
Significantly reduces a broad spectrum of body and environmental odorants



Fast-Acting Odor Capture
Quickly captures odors in real time, preventing treated fabrics from becoming saturated with unpleasant smells



Superior to Activated Carbon Fabrics
Outperforms activated carbon fabrics, with the added versatility of fabric and color selection



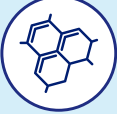
Mill Friendly
Easy incorporation into existing manufacturing processes – Exhaust, Padding & Spray applications



Seamless Compatibility
Works alongside wicking aids and DWRs without altering fabric performance



Wash Durable
For lasting performance and extended use



Non-Ionic and Water-Soluble
Chemistry provides mill with formulation flexibility and ease of use



OEKO-TEX® ECO PASSPORT certified
Meets independent requirements with regard to sustainable textile manufacturing and compliance.

ECO FRESH® FOR TEXTILES

ENVIRONMENTAL ODOR
CONTROL TECHNOLOGY

ECO Fresh captures target odorants on the surface of the treated textile. The odorant-active complex is dynamic, meaning the active site is not permanently consumed. **The trapped odorant on the treated textile will be replenished in one of two ways:**

01

Laundering of the textile disrupts the odorant-active complex, resulting in the odorant being washed away.



02

ECO Fresh will slowly release the odorant over time, at quantities below human detection.



NEUTRALIZES DIVERSE SET OF ODORANTS



Smoke odor

MeP* & PAH*



Sweat/foot odor

Carboxylic Acids



Fish odor

Amines & Sulfides



Aging body odor

Aldehydes

SMOKE ODOR NETRUALIZATION AFTER ECO FRESH™ TREATMENT

0 HL	10 HL
→ 80 %	→ 50 %

Evaluated via ASTM D5116 (190 gsm rPET Fleece)

*MeP = Methylphenols *PAH = Polycyclic aromatic hydrocarbon

TECHNOLOGY BENEFITS



Significantly reduces odors experienced by outdoor enthusiasts.



Fast acting – Odors are neutralized in real-time, preventing the treated fabrics from being overwhelmed.



Fabric stays fresher for longer, less washing required.



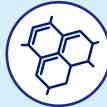
Captured odorants are released over time, well below the odor perception threshold.



Outperforms activated carbon fabrics, with the added versatility of fabric and color selection.



Promotes moisture management of synthetic and cellulosic fabrics.



Non-ionic, water-soluble chemistry provides mills with formulation flexibility and ease of use.



Wash durable for lasting performance and extended use.



Non-biocidal - bluesign® registration in progress.