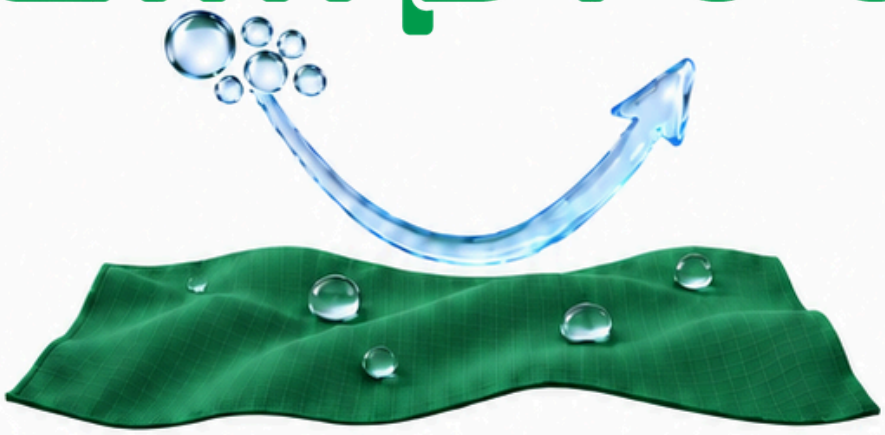
palmproof™



PalmProof™ BioWR-563

Water Repellent

A palm oil-based water repellent finishing technology for textiles that delivers advanced and durable performance to effectively repel water and mitigate wetting, even during harsh conditions or extended exposure. The technology is non-fluorinated and free of formaldehyde.

How It Works

Forming a hydrophobic layer that significantly lowers the fabric's surface energy, PalmProof™ BioWR-563 creates a barrier that prevents water from spreading or being absorbed, instead causing droplets to bead and roll off the surface. The technology is engineered without fluorochemicals or formaldehyde, providing a solution that is effective and safer for the environment.

For textiles, PalmProof™ offers reliable protection against rain, splashes, and moisture while preserving the garment's existing breathability and other qualities. It is compatible with standard padding and exhaust finishing processes, making it effortless for mills to utilize without altering existing production.

Verifying Performance

AATCC TM22: Measures the resistance of fabrics to wetting.
ISO 9865: Measure the water resistance, absorbency, and permeability of fabrics using the Bundesmann rain-shower test.

Performance Features

Water Repellent

Durability

20 Home Launderings

Application Methods

Padding
Exhaust

Suitable Fiber-types

Cotton
Polyester
Nylon
Blends

Certifications

ZDHC Level 3
Bluesign
OEKO-TEX Eco Passport
USDA BioPreferred
RSPO Certified

AGS MINDFUL PIONEERING

Performance Results

Fabric Composition	Technology Package	Initial	5HL	Status
100 Nylon	BioWR-563 + SFT-535	100	100	PASS
95/5 Nylon/Spandex	BioWR-563 + WDA-120	95	90	PASS
95/5 Nylon/Spandex	BioWR-563 + WDA-120	90	90	PASS
86/14 RPET/Spanex	BioWR-563 + SFT-535	100	90	PASS
100 Nylon	BioWR-563 + SFT-535	100	90	PASS
97/3 Nylon/Spandex	BioWR-563 + SFT-535	100	90	PASS
100 Polyester	BioWR-563 + SFT-535	100	80	PASS
50/50 RPET/PET	BioWR-563 + WDA-120	95	75	PASS
54/38/8	BioWR-563 + WDA-120	90	70	PASS

Sustainability

PalmProof™ starts with responsibly sourced palm oil, one of the most land-efficient sources of vegetable oil. The trees produce 3-4 metric tons of palm oil per hectare, significantly outperforming other crops such as soybean and corn in productivity, efficiency, and resiliency.

As a perennial crop, oil palm trees have an exceptionally productive and long cultivation life of approximately 25 years. Their long production cycle reduces the need for annual replanting and soil preparation. Responsible farming and cultivation helps protect the forests and peatlands. Their efficient use of natural rainfall through widespread root systems that absorb moisture across a large soil area, while its deeper roots access water stored further within the ground.

Palm oil's long-chain fatty acids contain naturally hydrophobic hydrocarbon chains that provides an optimal foundation for water-repellent chemistry. PalmProof™ BioWR-563 uses these renewable building blocks to deliver superior performance. Its sustainability values begin with a highly efficient crop and extends all the way to chemical engineering, production, and use.

Marketing Support

Products that have been treated with PalmProof™ BioWR-563, and have been certified to meet required performance standards are eligible to use our marketing materials for PalmProof™.

We provide support to our customers in regulatory compliance, market research, claims language, and marketing materials such as custom hang tags.







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