

TECHNOLOGY OVERVIEW



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ALL CHEMISTRIES CAN BE APPLIED TO FABRICS, YARNS OR FINISHED PRODUCTS



CLEAN CHEMISTRY STATEMENT

HEALTH, SAFETY, AND THE ENVIRONMENT ARE PRIORITY ONE.

OSM Shield creates high-performance fabric finishes that are safe for both people and the environment.

We utilize a combination of **PFOA-free, PFOS-free** chemistries to customize formulations based on fabric composition and customer performance requirements. All chemistries are classified as **non-perfluorinated compounds** and have passed related third-party perfluorinated compound toxicology screenings.

All OSM Shield fabric finishes are **ZDHC, REACH dossier**, and is also aligned with the vision and mission statements of the **American Chemical Society**.



THE FOLLOWING EXHIBITS ARE AVAILABLE UPON REQUEST:

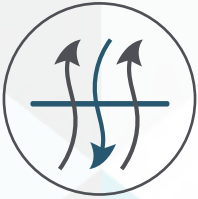
- Brand and Environmental Statement
- Synthesis Diagram
- OSM Shield Restricted Substance List
- Toxicology Screenings

ZERO
TOLERANCE 



CLEAN CHEMISTRY
Safe for people & the planet

A DURABLE HIGH PERFORMANCE FABRIC FINISH THAT FEATURES:



UNCHANGED
BREATHABILITY



OIL
RESISTANCE



STAIN
RELEASE



IMPROVED
ABRASION
RESISTANCE



UNCHANGED
HANDFEEL



STAIN
RESISTANCE



MOISTURE
RESISTANCE



ODOR
RESISTANCE



CROCKING

IMPROVED WET
AND DRY
CROCKING



IMPROVED
COLOR-
FASTNESS

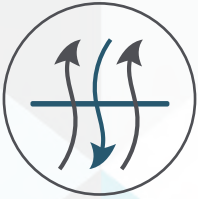


MOLD AND
MILDEW
RESISTANT

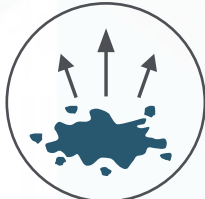


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CLEAN CHEMISTRY
Safe for people & the planet

WIK RELEASE IS A SPECIAL HYDROPHILIZATION PROCESS PROMOTING EXCEPTIONAL MOISTURE MANAGEMENT PERFORMANCE, THERMO-REGULATION, STAIN RELEASE, QUICK DRY PROPERTIES, IMPROVED COMFORT, AND UNCHANGED BREATHABILITY.



EXCEPTIONAL WICKING PERFORMANCE

Superior wicking performance - up to 13x better than competitive wicking finishes.



STAIN RELEASE

Unprecedented stain release performance on tough stains including ketchup, wine, coffee, chocolate, and more!



THERMOREGULATION

Allows the temperature of the body to be maintained

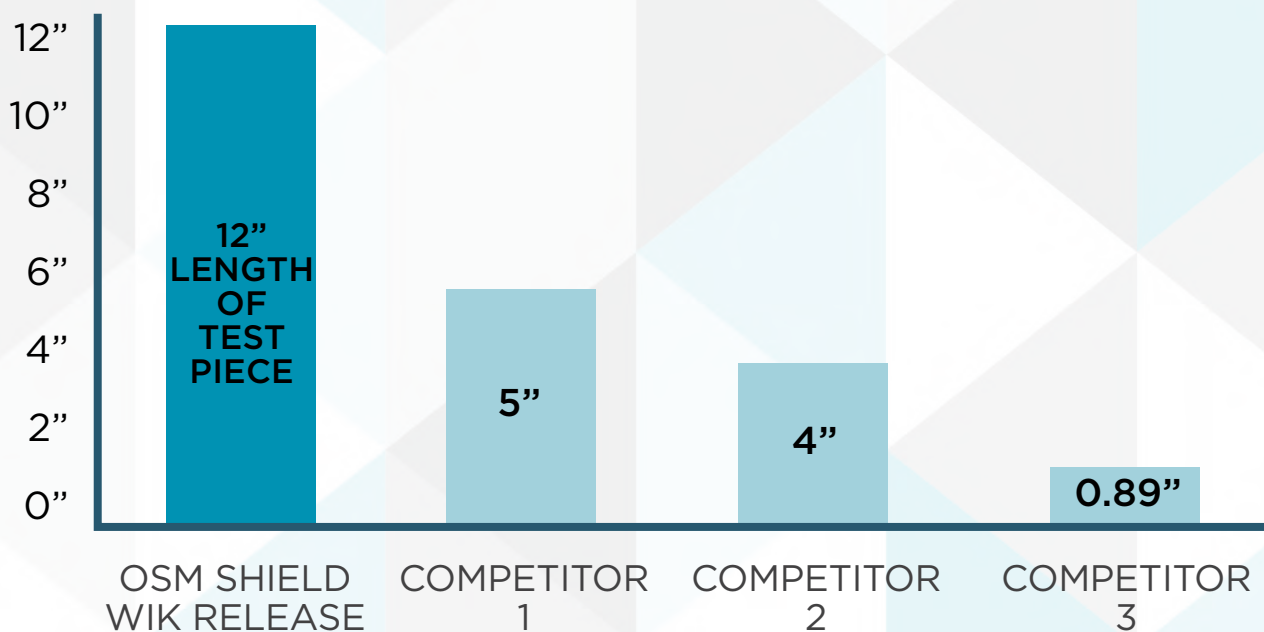


ENHANCED SOFTNESS

Greatly improves the handfeel of the fabric making it soft to the touch

WICKING TEST PERFORMANCE

OSM Shield's Wik Release performance is up to 13.5x better than the competition



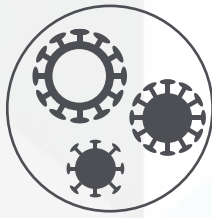
V-SHIELD BARRIER PLUS IS A DURABLE, NON-HEAVY METAL, NON-LEACHING ANTIMICROBIAL, PROVIDING OUTSTANDING ANTIMICROBIAL EFFICACY, REPELLENCY, AND BARRIER PROTECTION.

V-SHIELD BARRIER PLUS UTILIZES HYDROGEN PEROXIDE, A NATURAL ANTIMICROBIAL TO SAFELY AND EFFECTIVELY COMBAT MICROBES. IT IS PROVEN EFFECTIVE AGAINST NUMEROUS BACTERIA, FUNGI, AND VIRUSES.

V-SHIELD BARRIER PLUS CAN BE APPLIED TO ALL KINDS OF TEXTILE PRODUCTS AND IS COMPATIBLE WITH OTHER SURFACE TREATMENTS.



ANTI-BACTERIAL



ANTI-VIRAL



ANTI-FUNGAL



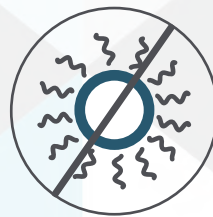
NATURALLY
RECHARGING



EXTREME
DURABILITY



EASY CARE



NON-LEACHING



SAFE



MOISTURE
RESISTANCE



OIL
RESISTANCE



STAIN
RESISTANCE



NON-HEAVY
METAL

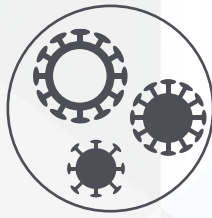
V-SHIELD WIK RELEASE IS A DURABLE, NON-HEAVY METAL, NON-LEACHING ANTIMICROBIAL, PROVIDING OUTSTANDING ANTIMICROBIAL EFFICACY COMBINED WITH WICKING, MOISTURE MANAGEMENT, AND STAIN RELEASE PERFORMANCE.

V-SHIELD WIK RELEASE UTILIZES HYDROGEN PEROXIDE, A NATURAL ANTIMICROBIAL TO SAFELY AND EFFECTIVELY COMBAT MICROBES. IT IS PROVEN EFFECTIVE AGAINST NUMEROUS BACTERIA, FUNGI, AND VIRUSES.

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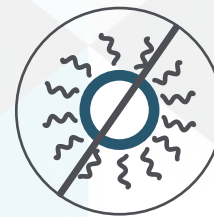
NATURALLY
RECHARGING



EXTREME
DURABILITY



EASY CARE



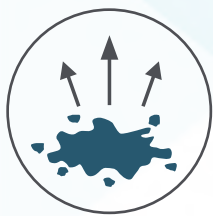
NON-LEACHING



SAFE



EXCEPTIONAL
WICKING
PERFORMANCE



STAIN RELEASE



NON-HEAVY
METAL



WICK RELEASE



BARRIER PLUS

APPLICABLE TO BOTH V-SHIELD CHEMISTRIES

PRODUCT FEATURES

- Unparalleled antimicrobial performance, durability and compatibility
- No health or safety concerns
- Environmentally friendly and non-leaching
- No heavy metals
- Naturally recharging by scavenging and retaining hydrogen peroxide from hydrogen peroxide-based laundering and cleaning solutions

ADVANTAGES OVER TRADITIONAL ANTIMICROBIALS

UNMATCHED DURABILITY

- Validated to 100 HL

CONTROLS ODOR & STAINING DUE TO MICROBES

EASY TO CARE FOR

- No special handling, wash hot or cold, with or without chlorine bleach

SAFE

- Non-toxic, non-irritating, and non-sensitizing to the skin (ISO 10993-10)

COST-EFFECTIVE

- Both in application and in reducing chemical waste

CURRENTLY USED IN FDA REGISTERED MEDICAL DEVICES

EPA REGISTERED

- No usage limits, degrades to water & oxygen in the environment, safe to dump down the drain

HIGHLY COMPATIBLE

- Can be used with almost all traditional finishing agents

- Works exceptionally well with OSM Shield's DWR systems for dual barrier & antimicrobial protection

NON-LEACHING

- Works on contact with microbes without depleting H₂O₂ reservoir

EFFECTIVE ON RESISTANT BACTERIA SPECIES (MRSA) AND BACTERIA HAS NOT BEEN SHOWN TO DEVELOP RESISTANCE

NATURALLY RECHARGING

- When exposed to peroxide-based cleaning substances, the V-Shield scavenges and stores that peroxide to naturally recharge itself
- V-Shield can also recharge the antimicrobial effectiveness during a standard home laundering by using a peroxide based additive found in household hydrogen peroxide, peroxide-based detergents, stain removers, "Oxiclean" products, and Oxygen-based or peroxide-based bleaches

USING A SPECIALIZED APPLICATION METHOD, OSM'S WIK + REPEL PERFORMANCE SYSTEM COMBINES HIGH PERFORMANCE HYDROPHOBIC FINISHES ON THE FACE OF THE FABRIC WITH WICKING PERFORMANCE ON THE INTERIOR OF THE FABRIC.

FACE ATTRIBUTES



UNCHANGED BREATHABILITY



OIL RESISTANCE



STAIN RELEASE



IMPROVED ABRASION RESISTANCE



UNCHANGED HANDFEEL



STAIN RESISTANCE



ODOR RESISTANCE



MOISTURE RESISTANCE



CROCKING

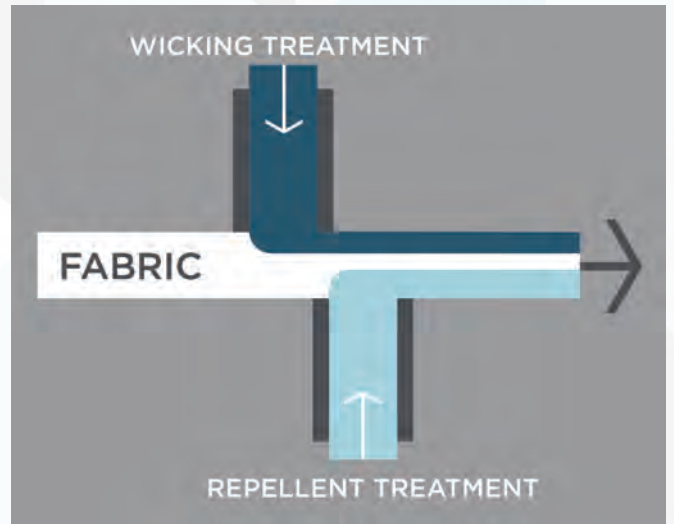
IMPROVED WET AND DRY CROCKING



NO SWEAT MARKS



CLEAN CHEMISTRY
Safe for people & the planet



INTERIOR ATTRIBUTES



EXCEPTIONAL WICKING PERFORMANCE



ENHANCED SOFTNESS



STAIN RELEASE



THERMOREGULATION



ODOR RESISTANCE