

EVERSHIELD[®]

SUPERIOR FABRIC PROTECTION



DEFLECT AND PROTECT.™

Life is unpredictable. Life is messy.
EverShield® fabric protection is changing the way that we interact with the world so you can get your hands dirty without worrying about the consequences.

EverShield is a Durable Omni Repellent (DOR) that deflects water, food, oil, and so much more. DORs have evolved from DWRs because DWR fabrics can only repel water.

DOR
DURABLE OMNI REPELLENT



Better performance. Advanced technology.

C8s work well. We all know that. But we also know that it has been proven to be harmful to the environment and its days are numbered. At least as far as fabric treatment is concerned.

EverShield is made, in part, using C6 chemistry and is water-based with no VOCs. But a more environmentally friendly formula doesn't mean less effectiveness. Quite the contrary, we outperform the competition*, including some using the old C8 chemistry .

Save energy. Save money.

Unlike some DWRs, EverShield treated fabrics can be washed at standard temperatures. No superheated wash or drying cycles are needed to maintain superhydrophobicity or oleophobicity. Cooler water and cooler dryers means less energy consumption and lower operating costs.

*Refer to charts on page 10



BATTLEFIELD BEGINNINGS

In the mid-2000s, Army General John Caldwell challenged scientists at the US Army Natick Soldier Research, Development & Engineering Center to develop a “self-cleaning” uniform.

Battlefield logistics can be complicated and the goals of the project were to (1) develop highly repellent and durable textiles that resist the attraction of liquid and solid contaminants and (2) minimize the battlefield logistics burden - reduce laundering and/or remove the necessity of detergents.

The team spent over six years developing the fabric treatment that would meet the demands of the US Army.

The technology continues to be successfully tested by the Army and other military branches. Needless to say, the adoption of new technology can be an arduous process.

But while our fighting forces have to wait for this amazing technology, the rest of us can benefit right now.

HOW DOES IT WORK?

Creating Performance Fabric



EverShield establishes a polymer coating that encases each fiber of the material, significantly increasing durability through a complex, protective matrix.

The coating that is created maintains performance levels of long chain fluorocarbons while utilizing more acceptable six-carbon fluoropolymers.



CROSS-LINKER

The diagram shows three red, glossy spheres. One sphere is at the top left, another is in the middle, and a third is at the bottom left. A thin white line connects the middle sphere to the 'CROSS-LINKER' text.

EverShield utilizes a chemical additive called a cross-linker that connects polymer chains and makes them stronger. The result is a stronger fabric treatment that allows for greater durability.



ADVANCED DURABILITY

The diagram shows a red, glossy sphere on the left. A thin white line extends from the sphere to the right, where it meets a vertical line that connects to the 'ADVANCED DURABILITY' text.

EverShield forms a strong link between polymers that are uniquely bound together to create fabric protection that is very durable and long lasting.



CONFORMAL COATING

The diagram shows a red, glossy sphere on the right. A thin white line extends from the sphere to the left, where it meets a vertical line that connects to the 'CONFORMAL COATING' text. Below the sphere, there is a red, irregular, liquid-like shape that appears to be coating a surface.

During the treatment process, each individual fiber is coated with EverShield unlike some fabric protection that only provides surface treatment.

FEATURES & BENEFITS

EverShield outperforms DWRs not only by repelling water longer but by repelling oils, food products, mud, concrete, ice and other aqueous solutions.



Oleophobic

Resists and repels most oils, acids, and alkalines



Superhydrophobic

Superior water repellent



Icephobic

Repels and reduces the formation of ice



Tensile Strength

Maintains the strength of original fabric



Extremely Durable

Protection for over 50 washes (including oil repellency)



Excellent Breathability

Preserves fabric breathability



Original Feel

Retains fabric softness and feel



Additional Benefits:

- ◊ Unique self-cleaning capability
- ◊ Colorfast and retains fabric's original hue
- ◊ Does not compromise base fabric's flame retardancy
- ◊ Ability to incorporate anti-microbial agents
- ◊ Uses conventional dip/pad/dry treatment process

APPLICATIONS

Athletics

Camping

Medical

Restaurants

Children's Clothing

Automobiles

Outdoor Sports

Military

First Responders

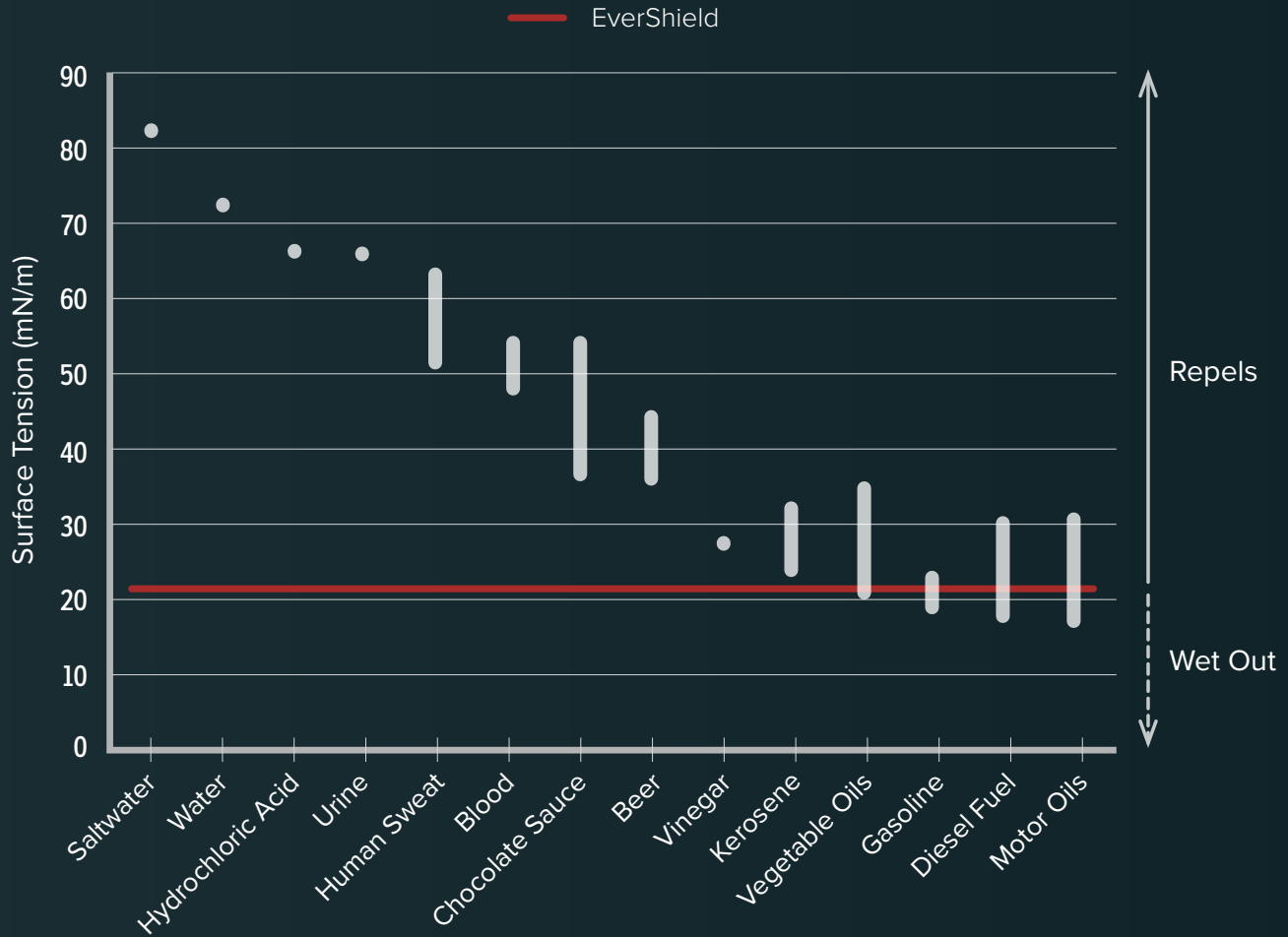
Uniforms

Industrial

Home Goods

USE THIS. REPEL THAT.™

Surface Tension Comparison of EverShield & Various Liquids



A 5 mm diameter droplet of fluid above product limits should be repelled for 30 seconds. Product performance shown is for the best case scenario on 50/50 NYCO fabric: sufficient drying, optimal mixing, no UV, no abrasion, no washing, etc. Performance may change with fabric type. Predicted performance based on AATCC 118 -Oil Repellency: Hydrocarbon Resistance Test. Fluid data is approximate, may extend beyond reported ranges, and is subject to change.

FABRIC'S FORCE FIELD™

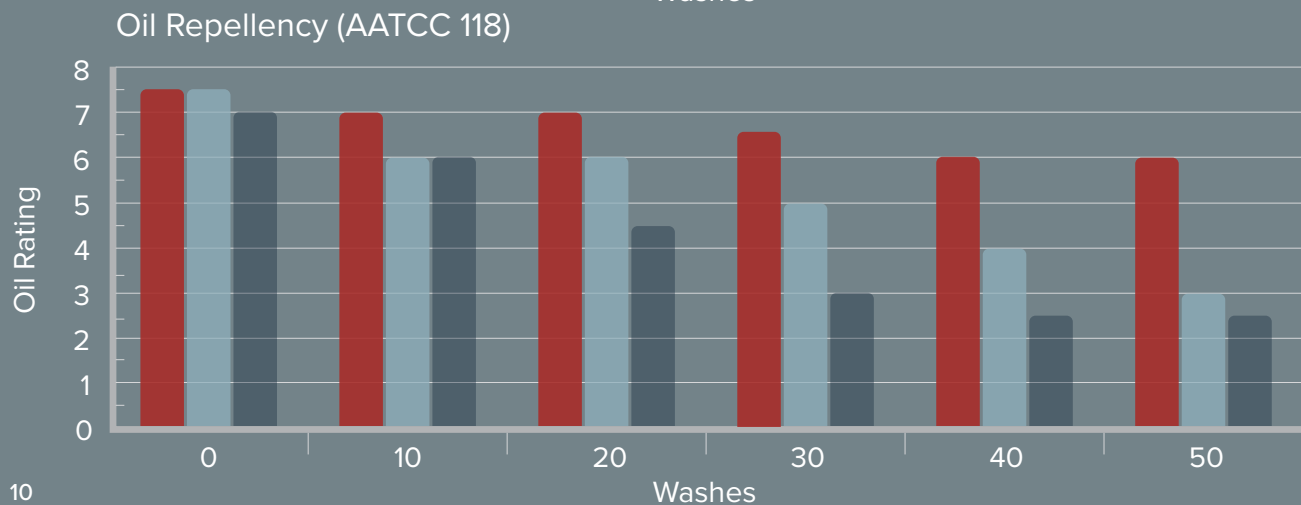
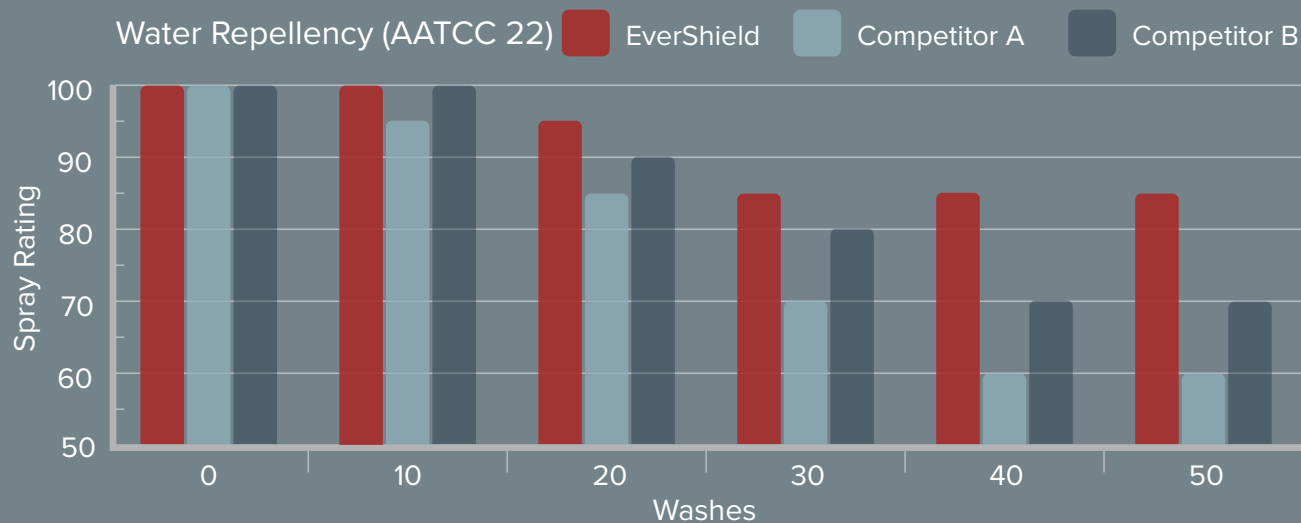
EverShield creates a polymer coating around each fiber that is woven into a fabric giving it a “force field” of protection with outstanding repellency and long lasting durability.



COATING REPELLENCY DURABILITY*

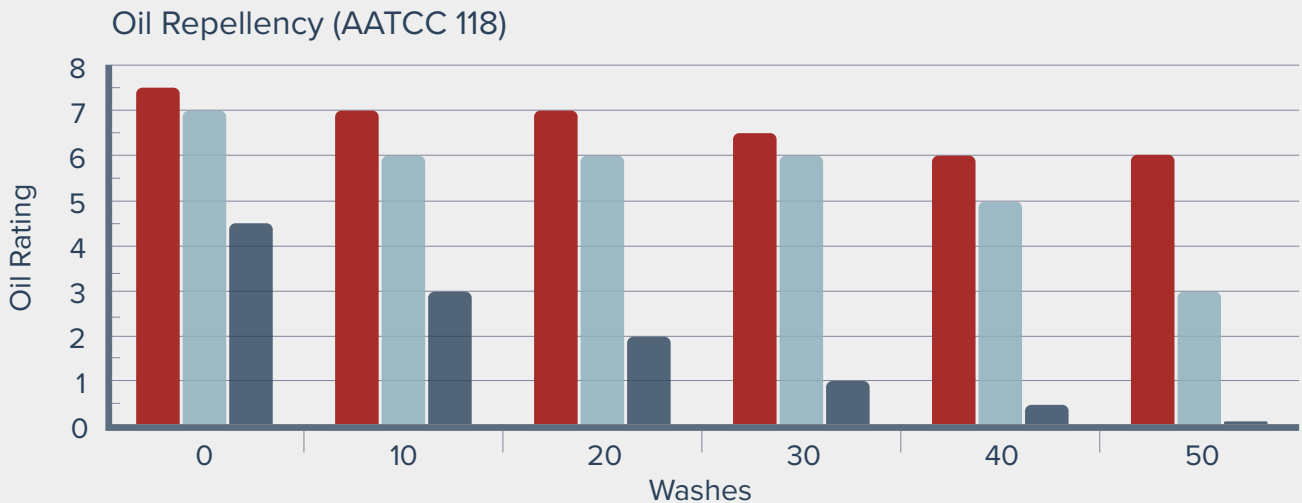
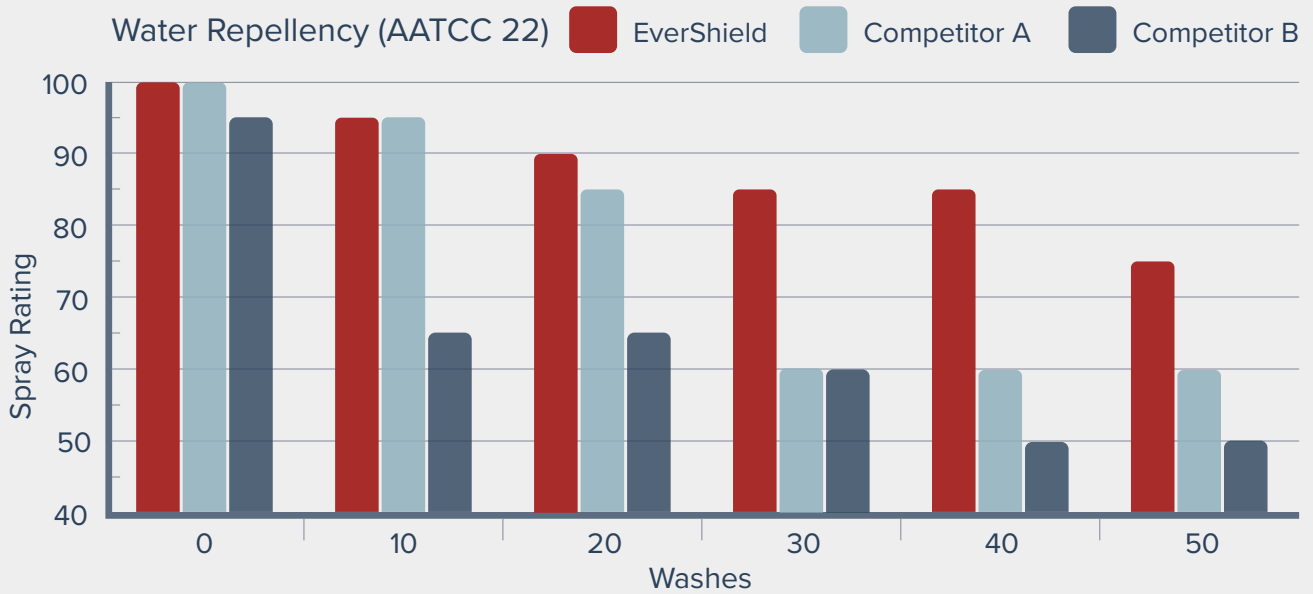
NYCO Fabric

50 Wash Study was performed by a third party lab. EverShield was tested at standard concentration (only water was added). Competitor A is a leading oil & water repellent that includes their C6 fluoropolymer, booster, crosslinker, and other competitor recommended additives. Component concentrations were selected according to the maximum recommended value of the competitor's technical data sheet (TDS). Competitor B is a leading oil & water repellent that includes a C6 fluoropolymer and crosslinker. Component concentrations were selected according to the average recommended value of the competitor's TDS.



COATING REPELLENCY DURABILITY*

Cotton Fabric



*AATCC 135 · Cold water wash and rinse · Hot dry



EVERSHIELD®

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