EMERGENCY RESPONSE

TENCATE

Advance ultra®

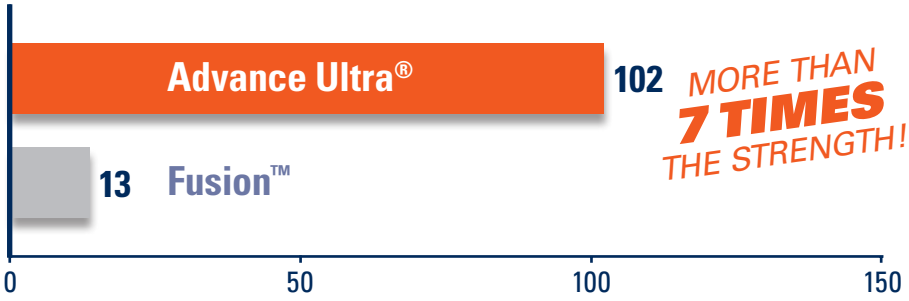
More than 7 times the strength of Fusion™. Protection plus durability means real value.

Engineered with an innovative triple fiber blend, TenCate Advance Ultra® offers an exceptional combination of strength, durability, and thermal protection. The stronger the outer shell is after thermal exposure, the more protection it provides because breakopen is less likely to occur.

To test the strength of outer shell fabrics, manufacturers expose the fabric to a heat source, then measure the Breaking Force/Tensile Strength after thermal exposure.

TENSILE STRENGTH AFTER TPP EXPOSURE

Outer Shell Fabrics After a 17.5 Second TPP Exposure



Advance Ultra versus Fusion™

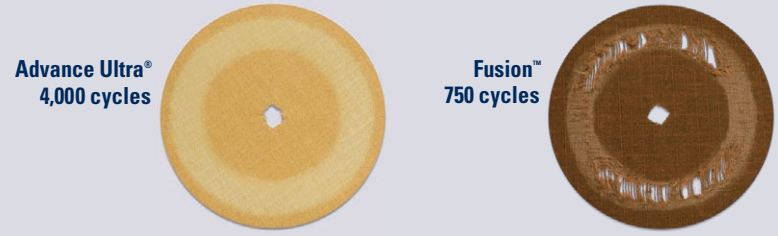
Shown above are the tensile strength values of Advance Ultra® vs. Fusion™ after a 17.5 second TPP exposure (2 cal/cm^2). As you can see, Advance Ultra has more than 30 times the tensile strength of Fusion, showing superior thermal protection.

Taber Abrasion tests also prove that Advance Ultra is significantly more durable, meaning longer wear life and greater value.

TABER ABRASION PERFORMANCE

After Taber Abrasion Test

5 TIMES THE RESISTANCE!



FIBER BLEND: 60% Kevlar®
20% Nomex®
20% PBO

WEIGHT: 7.5 oz (sq yd)

WEAVE: Rip-Stop

COLOR: Light Gold, Yellow, Dark Gold

FINISH: Super Shelltite™

END USE: Turnout Gear Outer Shells

TENCATE

Advance ultra®

THERMAL PROTECTIVE PERFORMANCE

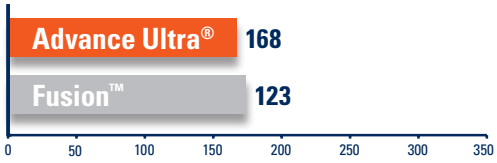
Outer Shells with Caldura® and PTFE Moisture Barrier

TENSILE STRENGTH AFTER 10 LAUNDERINGS

Tensile Strength of Weakest Fabric Direction After 10 Standardized Laundering

TENSILE STRENGTH AFTER ACCELERATED LIGHT EXPOSURE

Tensile Strength of Weakest Fabric Direction After 80 Hours Xenon Exposure



TEAR STRENGTH AFTER TPP EXPOSURE

Outer Shell Fabrics After a 17.5 Second TPP Exposure

PHYSICAL PROPERTIES	TenCate Advance Ultra®	NFPA 1971 Requirements
Trapezoidal Tear Strength (lbs) **ASTM D 5587***		
Initial (warp x fill)	45 x 45	22.0 min
After 5 launderings (warp x fill)	40 x 35	
Tensile Strength (lbs) **ASTM D 5034**		
Initial (warp x fill)	440 x 420	140.0 min
After 10 launderings (warp x fill)	320 x 310	
Tensile Strength (lbs) after 17.5-second TPP Exposure		
(2.0 cal/cm^2 • sec) (warp x fill)	110 x 100	
Water Absorption Resistance (%) **AATCC 42**		
Initial	< 1.0	30.0 max
After 5 launderings	< 2.5	
Flame Resistance **ASTM D 6413**		
Char Length in inches (warp x fill) (Initial)	0.1 x 0.1	4.0 max
Char Length in inches (warp x fill) (After 5 launderings)	0.1 x 0.1	
After Flame in seconds (warp x fill)	0.0 x 0.0	2.0 max
Laundry Shrinkage (%) **AATCC 135**		
After 5 launderings (cotton sturdy cycle) (warp x fill)	< 5.0 x < 5.0	5.0 max
Heat and Thermal Shrinkage (%) **NFPA 1971**		
500°F for 5 minutes	< 1.0	10.0 max
After 5 launderings	< 1.0	

*NFPA 1971-2007 specifies Trapezoidal Tear Strength measurement according to ASTM D 5587 not allowing for specimen slippage.

Exceptional thermal protection – Strong and flexible before and after thermal exposure.

Superior abrasion resistance – Resists abrasion, holes and tears.

Outstanding value – Offers reliable, long lasting, and durable protection at an affordable price.

TenCate Advance Ultra® delivers peace of mind when lives are on the line.

TENCATE

Nothing Beats a TenCate Protective Fabric

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Sunlight/UV Exposure Advisory: Prolonged sunlight and UV exposure can be damaging to aramid and PBO fibers. Both natural (undyed) and dyed aramid and PBO fibers will fade or change color with exposure to sunlight or other UV sources. The thermal performance is not affected, but long term or repeated exposures will cause the fabric to gradually weaken. Garments should be stored so that they are protected from sunlight, including windows and bay doors, to maximize wear life. TenCate Protective Fabrics offers no warranties, implied or otherwise, for color change or fabric damage due to UV exposure.

All listed test data and ranges represent typical values. All test data and ranges are the result of multiple tests unless otherwise stated. To the best of our knowledge, the information contained herein is accurate. However, TenCate Protective Fabrics assumes no liability whatsoever for the accuracy or completeness of the information contained herein. Users of any substance must satisfy themselves by independent investigation that the material can be used safely. We have described certain hazards, but we cannot guarantee that these are the only hazards.

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9/2010 Advance Ultra vs. Fusion 940.5683 without sample

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