



Defender™ M

FR Wovens

MILITARY

TENCATE™ DEFENDER™ M sets the standard for flame protective military apparel. It is the new flame-resistant military combat fabric of both the United States Army and United States Marine Corps. Engineered with patented technology, DEFENDER M not only provides exceptional protection from flame and heat. It is also as comfortable and durable as the most tried and proven nylon/cotton military fabrics.

- **Protection**—Self-extinguishes and will not melt or drip. These FR properties are inherent in the fabric, so they will not wash or wear out.
- **Comfort**—Lightweight, breathable Lenzing FR® absorbs and evaporates perspiration faster, keeping you cooler.
- **Durability**—Excellent resistance to wear, tear, and fading combine to provide a long useful garment life.

DEFENDER M provides peace of mind when lives are on the line. Only by TenCate.



Marine Pattern (MARPAT)

Universal Camouflage (UCP)

TENCATE
Defender™ M

PHYSICAL PROPERTIES		TenCate DEFENDER™ M FR Woven Fabrics		MIL SPEC GL-PD-07-12 REQUIREMENTS
Weight (+ or - 5%)	oz (sq yd) grams (sq meter)	6.2 210	6.5 220	5.5 – 8.5 185 – 287
Weave		Rip Stop	Twill	
Yarns Per Inch FTMS 191A-5050		75 x 62	90 x 55	
Breaking Strength (lbs [warp x fill]) ASTM D 5034		145 x 115	200 x 125	100 x 80
Tearing Strength (lbs [warp x fill]) ASTM D 1424		12.0 x 10.0	9.0 x 8.0	4.0 x 4.0
Fabric Break Open (sec) Mil-C-83429B		>30.0	>30.0	30.0 min
Air Permeability (ft ³ /ft ² /min) ASTM D 737		>40.0	>30.0	10.0 min
Flame Resistance (warp x fill) before laundering	after flame (sec) after glow (sec) char length (inches) melt/drip	0.0 x 0.0 2.0 x 2.0 2.5 x 2.5 none	0.0 x 0.0 1.0 x 1.0 2.5 x 2.5 none	2.0 max 25.0 max 4.5 max none
ASTM D 6413-99				
Flame Resistance (warp x fill) after 25x laundering	after flame (sec) after glow (sec) char length (inches) melt/drip	0.0 x 0.0 2.0 x 2.0 2.5 x 2.5 none	0.0 x 0.0 1.0 x 1.0 3.0 x 3.0 none	2.0 max 25.0 max 4.5 max none
ASTM D 6413-99				
Thermal Shrinkage (warp x fill) NFPA 1971-2007	% shrinkage	3.0 x 3.0	5.0 x 4.0	10.0 max

**COMPOSITION: 65% Lenzing FR® Rayon
25% Para-Aramid
10% Nylon**

**PRINT DESIGNS*: Universal Camouflage (UCP)
Marine Pattern (MARPAT)**

END USE: FR ACU, FR MCE

* Other print designs available upon request (minimum order quantities may apply)



LAUNDERING: Garments made with DEFENDER M fabrics are easily maintained by home or industrial laundering. For detailed laundering specifications, please contact TENCATE PROTECTIVE FABRICS at (800) 241-8630.

SUNLIGHT/UV EXPOSURE ADVISORY: Prolonged sunlight and UV exposure can be damaging to aramid fibers. Both natural (undyed) and dyed aramid 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. SOUTHERN MILLS OFFERS NO WARRANTIES, IMPLIED OR OTHERWISE, FOR COLOR CHANGE OR FABRIC DAMAGE DUE TO UV EXPOSURE.

To the best of our knowledge, the information contained herein is accurate. However, SOUTHERN MILLS 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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