



Proven, reliable, durable protection.

TenCate Freestyle™ fabrics are perfect for head-to-toe protection against flash fire, electric arc (HRC 1) and other dangerous conditions. Garments made with Nomex® IIIA fabric, combine exceptional flame resistance with excellent durability, wash after wash, for long-lasting proven protection.

- **Inherently flame resistant** – FR properties are built-in and won't wash out or wear out. Meets and exceeds NFPA 2112 and NFPA 70E HRC 1 performance standards
- **Proven Nomex performance** – Flame-resistant protection for a broad range of high-risk industries.
- **Excellent durability** – Retains professional appearance, even after rugged use and multiple launderings.
- **Wickwell™ Plus** – Unmatched wickability moves perspiration away from the body and spreads moisture for improved dissipation, keeping you drier and more comfortable.

TenCate Freestyle™ delivers peace of mind when lives are on the line.

Nothing Beats a TenCate Protective Fabric.

Fire Service Navy

FIBER BLEND: 100% Nomex® IIIA
WEIGHT (±5%): 4.5 - 7.5 oz (sq yd)
WEAVE: Plain, Twill
FINISH: Wickwell™ Plus
END USE: Shirts, Pants, Jackets,
Coveralls





● Light Blue ● Spruce ● Red ● Orange ● Tan ● Yellow ● Black ● Natural ● Dark Navy ● Fire Service Navy ● Royal Blue

PHYSICAL PROPERTIES	TenCate Freestyle™				ASTM F 1891 Requirements	NFPA 2112 Requirements
Weight oz (sq yd) grams (sq meter) (± 5%)	4.5 oz (sq yd) 153g (sq meter)	6.0 oz (sq yd) 203g (sq meter)	6.8 oz (sq yd) 231g (sq meter)	7.5 oz (sq yd) 254g (sq meter)		
Weave	Plain	Plain	Twill	Plain		
Standard Colors (other colors available upon request)	●●●●●	●●●●●●	●●	●●		
Thickness (inches)	0.020	0.020	0.022	0.022		
Construction (warp x fill)	66 x 43	67 x 44	89 x 64	50 x 54		
Flame Resistance ASTM D 6413-99 Char Length (inches [warp x fill]) After Flame (seconds [warp x fill]) After 100x Launderings	2.8 x 2.8 0.0 x 0.0	2.4 x 2.4 0.0 x 0.0	2.5 x 2.5 0.0 x 0.0	2.3 x 2.3 0.0 x 0.0	4.0 max. 2.0 max.	4.0 max. 2.0 max.
Thermal Protective Performance (cal/cm²) NFPA 2112	10.0 4.5	12.0 6.0	14.0 7.0	14.0 7.5	6.0 min. (w/ spacer) 3.0 min. (no spacer)	6.0 min. (w/ spacer) 3.0 min. (no spacer)
Flash Fire Exposure (Manik Test) ASTM F 1930 (% body burn [2.0 cal/cm² • sec] at 3 seconds)	pass	pass	pass	pass	50.0 max.	50.0 max.
ARCThermal Performance ATPV (cal/cm²) ASTM F1959 After Flame @ 10 cal (seconds)	4.6 - 4.8 < 1.0	5.7 - 5.9 < 1.0	6.5 - 7.0 < 1.0	6.6 - 6.9 < 1.0		
Tensile Strength (lbs [warp x fill]) ASTM D 5034	170 x 100	240 x 150	260 x 180	260 x 240		
Elmendorf Tear Strength (lbs [warp x fill]) ASTM D 1424	10 x 7	12 x 8	12 x 8	16 x 13		
Dimensional Stability AATCC 135 3-IV, Aiii (both directions)	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0		
Air Permeability (ft³/ft²/minutes) ASTM D 737	210	80	25	60		
Washing Colorfastness 140°F Industrial Wash, 160°F Max Stack Dry [25x]	*4 *4	*4 *4	*4 *4	*4 *4		
Colorfastness to Xenon Light (20 hours) AATCC 16	*3-4	*3-4	*3-4	*3-4		
Crocking AATCC 8 Wet Dry	*3-4 - All Colors *5 - All Colors	*3-4 - All Colors *5 - All Colors	*3-4 - All Colors *5 - All Colors	*3-4 - All Colors *5 - All Colors		
Wicking (distance in seconds) (1" strip, tap water)	0.5 inches 1.0 inches 1.5 inches 2.0 inches	3 10 27 58	3 10 27 58	6 14 37 79	3 12 34 70	
Theoretical Moisture Regain (%)	4.5	4.5	4.5	4.5		
Pilling Resistance ASTM D 3512	30 minutes 60 minutes 90 minutes 120 minutes	*4 *5 *5 *5	*4 *5 *5 *5	*4 *5 *5 *5	*3 *4 *5 *5	
Heat & Thermal Shrinkage Resistance (%[500°F, 5 minutes]) After 100 Industrial Launderings	< 2.0	< 2.0	< 2.0	< 2.0	10.0 maximum	10.0 maximum
Appearance of Fabric AATCC 124 After 50 Home Launderings	*4	*4	*4	*4		

Ratings: *5 - Best, *3 - Acceptable, *1 - Poor



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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. 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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Finishing and Non-woven are ISO-9001 Certified Facilities.