



Outperforms Treated and Other Flame-resistant Fabrics

TenCate Tecasafe® Plus delivers superior electric arc and flash fire protection in a comfortable lightweight fabric. NFPA 70E HRC 2 and NFPA 2112 compliant, it lasts longer than FR treated fabrics, making Tecasafe Plus a great value. Unlike other protective fabrics, it is inherently flame resistant. This means that the unique FR protection is built-in, so it won't wash or wear out.

The chart below shows how Tecasafe Plus provides unbeatable electric arc and flash fire protection in every category.

		FR Cotton	Nomex IIIA	TENCATE Tecasafe® plus
Protection				
Inherently Flame-Resistant	FR properties will never wash out		●	+
Flash Fire	NFPA 2112 Certified	●	●	+
	CGSB 155.20 Certified	●	●	+
	EN 531 Certified	●	●	+
Electric Arc	NFPA 70E HRC 2 Compliant	●		+
High Visibility	ANSI 107 High Visibility Certified			+
	CSA Z96 High Visibility Certified			+
Comfortable				
	Good moisture management	●		+
	Soft hand	●		+
	Cellulosic blend	●		+
Durable				
	Can be industrially laundered	●	●	+
	Maintains like-new appearance after multiple industrial washes		●	+
Cost Effective				
	Low acquisition cost	●		+
	Long service life		●	+



Tecasafe® plus

● Khaki ● Light Blue ● Gray ● Royal Blue ● Red ● Yellow ● Orange¹ ● Hi-Vis Yellow² ● Navy

PHYSICAL PROPERTIES	NEW! Tecasafe® Plus 580	Tecasafe® Plus 700	Tecasafe® Plus 700-A	Tecasafe® Plus 850-A	NFPA 70E Requirement		NFPA 2112 Requirement
					HRC 1	HRC 2	
Weight (±5%) oz (sq yd) grams (sq meter)	5.8 oz 197 g	7.0 oz 238 g	7.0 oz 238 g	8.5 oz 288 g			
Fiber Blend	48% fr-modacrylic 37% lyocell 15% aramid	48% fr-modacrylic 37% lyocell 15% aramid	45% fr-modacrylic 35% lyocell 20% aramid	45% fr-modacrylic 35% lyocell 20% aramid			
Standard Colors (other colors available upon request)	● ● ●	● ● ● ● ● ● ●	●	●			
Arc Thermal Performance Value (ATPV) (cal/cm²) ASTM F 1959	6.5	9.0	10.1	10.2	5.0 min	8.0 min	
Flame Resistance ASTM D 6413 Char Length (inches [warp x fill]) After Flame (seconds [warp x fill])	<4.0 x <4.0 0.0 x 0.0	<4.0 x <4.0 0.0 x 0.0	<4.0 x <4.0 0.0 x 0.0	<4.0 x <4.0 0.0 x 0.0	6.0 max	6.0 max	4.0 max 2.0 max
Thermal Protective Performance (cal/cm²) with spacer without spacer	9.6 6.6	12.3 10.9	10.0 7.5	10.0 8.0			6.0 min 3.0 min
Flash Fire Exposure (Manikin Test) ASTM F 1930 (% body burn [2 cal/cm ² /sec] @ 3 sec)	23%	15%	23.5%	19%			50.0 max
Tensile Strength (lbs [warp x fill]) ASTM D 5034	114 x 85	135 x 85	135 x 85	145 x 90			
Elmendorf Tear Strength (lbs [warp x fill]) ASTM D 1424	11 x 10	8.0 x 7.0	8.0 x 7.0	12.0 x 10.0			
Dimensional Stability AATCC 135 (% [5x] 120°F)	<3.0	<3.0	<3.0	<3.0			
Wicking 1" strip, tap water (seconds)	0.5 inches 1.0 inches 1.5 inches 2.0 inches	3.5 13.0 29.0 61.0	3.5 13.0 29.0 61.0	3.5 13.0 29.0 61.0			
Pilling Resistance ASTM D 3512 30-120 minutes	*5	*5	*4-5	*4-5			
Thermal Shrinkage Resistance (% [500°F, 5 minutes])	<5.0	<1.0	<4.0	<3.0			10.0 max

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

1. Tecasafe plus Orange meets Canadian high-visibility safety standard CSA Z96-2009.
2. Tecasafe plus Hi-Vis Yellow meets high-visibility safety standards ANSI 107 and CSA Z96-2009.



6501 Mall Blvd. • P.O. Box 289
 Union City, GA 30291
 Phone: 770.969.1000 • Fax: 770.969.6846
 Toll Free: 800.241.8630
 www.TenCateProtectiveFabrics.com

Laundrying: Garments made with Tecasafe® Plus fabrics are easily maintained by home or industrial laundrying. For detailed laundrying specifications, please contact TenCate at (800) 241-8630.

Sunlight/UV Exposure Advisory: Like other natural and synthetic textile materials, Tecasafe Plus may be impacted by prolonged exposure to ultra violet radiation (UV) from both sunlight and artificial light sources. Dyed fabrics may change color or fade after prolonged exposures, but UV exposure does not impact flame resistant properties. Similar to other natural and synthetic textile materials, color change or fading is not necessarily indicative of fiber degradation. Extended exposure to UV radiation can also cause loss of mechanical properties depending on wave length, exposure time and radiation intensity. Our tests indicate that Tecasafe Plus maintains higher tensile strength after extended UV exposure than equivalent weights of 100% aramid and 88/12 FR cotton/ nylon blend fabrics. 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.