



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

# Tecasafe® plus

● Khaki ● Light Blue ● Gray ● Royal Blue ● Red ● Yellow ● Orange<sup>1</sup> ● Hi-Vis Yellow<sup>2</sup> ● Navy

PHYSICAL PROPERTIES		<b>NEW!</b> Tecasafe® Plus 580	Tecasafe® Plus 700	Tecasafe® Plus 700-A	Tecasafe® Plus 850-A	NFPA 70E Requirement		NFPA 2112 Requirement
						HRC 1	HRC 2	
<b>Weight (±5%)</b>	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			
<b>Fiber Blend</b>		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			
<b>Standard Colors</b> (other colors available upon request)		● ● ●	● ● ● ● ● ● ●	●	●			
<b>Arc Thermal Performance Value (ATPV) (cal/cm<sup>2</sup>)</b>	<b>ASTM F 1959</b>	6.5	9.0	10.1	10.2	5.0 min	8.0 min	
<b>Flame Resistance</b>	<b>ASTM D 6413</b> 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
<b>Thermal Protective Performance (cal/cm<sup>2</sup>)</b>	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
<b>Flash Fire Exposure (Manikin Test)</b> (% body burn [2 cal/cm <sup>2</sup> /sec] @ 3 sec)	<b>ASTM F 1930</b>	23%	15%	23.5%	19%			50.0 max
<b>Tensile Strength (lbs [warp x fill])</b>	<b>ASTM D 5034</b>	114 x 85	135 x 85	135 x 85	145 x 90			
<b>Elmendorf Tear Strength (lbs [warp x fill])</b>	<b>ASTM D 1424</b>	11 x 10	8.0 x 7.0	8.0 x 7.0	12.0 x 10.0			
<b>Dimensional Stability</b> (% [5x] 120°F)	<b>AATCC 135</b>	<3.0	<3.0	<3.0	<3.0			
<b>Wicking</b> 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	3.5 11.0 29.0 51.0			
<b>Pilling Resistance</b> 30-120 minutes	<b>ASTM D 3512</b>	*5	*5	*4-5	*4-5			
<b>Thermal Shrinkage Resistance</b> (% [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.