

 TENCATE

Tecasafe® plus

THE COLORS YOU WANT. THE COMFORT, PROTECTION AND DURABILITY YOU NEED.

TenCate Tecasafe® Plus delivers superior electric arc and flash fire protection in a comfortable lightweight fabric. Tecasafe® Plus is NFPA 70E/CSA Z462, CGSB 155.20 compliant and NFPA 2112 certified and lasts longer than FR treated fabrics, making Tecasafe® Plus a great value. It is inherently flame resistant unlike some other protective fabrics. So, the unique FR protection comes built-in, and won't wash out or wear out.

TenCate Tecasafe Plus Color Options

*Non-standard color — minimum order size required



Khaki 700



Royal Blue 700



Red 700*



Navy 700-A



Gray 700*



Yellow 700



Orange 700



Hi-Vis Yellow 700



Navy 850-A



www.tencateprotectivefabrics.com

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PHYSICAL PROPERTIES			Tecasafe® Plus 580	Tecasafe® Plus 580-A	Tecasafe® Plus 700	Tecasafe® Plus 700-A	Tecasafe® Plus 850-A	NFPA 70E Requirement		NFPA 2112 Requirement
									HRC 1	HRC 2
FABRIC WEIGHT (±5%)	oz /yd ² g /m ²		5.8 197	5.8 197	7.0 238	7.0 238	8.5 288			
FIBER BLEND			fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid			
STANDARD COLORS (other colors available upon request)			•••	•	•••••	••	•			
ARC THERMAL PERFORMANCE VALUE (ATPV) (cal/cm ²)	ASTM F 1959		6.5	5.7	9.0	10.1	10.2	5.0 min.	8.0 min.	
FLAME RESISTANCE	ASTM D 6413									
Char Length (inches [warp x fill])			< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	6.0 max	6.0 max	4.0 max
After Flame (seconds [warp x fill])			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0			2.0 max
THERMAL PROTECTIVE PERFORMANCE (cal/cm ²)										
With spacer			9.6	9.8	12.3	10.0	10.0			6.0 min
Without spacer			6.6	6.5	10.9	7.5	8.0			3.0 min
FLASH FIRE EXPOSURE (Mankin Test)	ASTM F 1930		22	29	13	23	19			50.0 max
(% body burn [2 cal/cm ² /sec] @ 3 sec)										
TENSILE STRENGTH (lbs [warp x fill])	ASTM D 5034		114 x 85	105 x 80	135 x 85	135 x 85	145 x 90			
ELMENDORF TEAR STRENGTH (lbs [warp x fill])	ASTM D 1424		11 x 10	11 x 10	10 x 8	12 x 10	12 x 10			
DIMENSIONAL STABILITY (% [5x]) 120°F	AATCC 135		≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0			
WICKING										
1" strip, tap water (seconds)		0.5 inches	3.5	3.5	3.5	3.5	3.5			
		1.0 inches	13.0	11.5	13.0	13.0	11.0			
		1.5 inches	29.0	28.0	29.0	29.0	29.0			
		2.0 inches	61.0	53.0	61.0	61.0	51.0			
PILLING RESISTANCE (%)	ASTM D 3512		*5	*5	*5	*4-5	*4-5			
30-120 minutes										
THERMAL SHRINKAGE RESISTANCE										
(% [500°F, 5 minutes])			≤ 3.0	3.0	≤ 3.0	< 4.0	< 3.0			10.0 max

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.

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

CONTACT US AT:

TenCate Protective Fabrics

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 FX: 1.770.969.6846
 tencateprotectivefabrics.com



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

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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1/2013 Tecasafe Plus 940 9128 with sample

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Tecasafe® plus

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 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.



Protection		FR Cotton	Nomex IIIA	Tecasafe® Plus
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	●	●	☞ ☞



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PHYSICAL PROPERTIES

		HRC 1		HRC 2		NFPA 70E Requirement		NFPA 2112 Requirement
		Tecasafe® Plus 580	Tecasafe® Plus 580-A	Tecasafe® Plus 700	Tecasafe® Plus 700-A	Tecasafe® Plus 850-A	HRC 1	
FABRIC WEIGHT (±5%)	oz /yd ² g /m ²	5.8 197	5.8 197	7.0 238	7.0 238	8.5 288		
FIBER BLEND		fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid	fr-modacrylic lyocell aramid		
STANDARD COLORS (other colors available upon request)		● ● ●	●	● ● ● ● ●	●	●		
ARC THERMAL PERFORMANCE VALUE (ATPV) (cal/cm ²)	ASTM F 1959	6.5	5.7	9.0	10.1	10.2	5.0 min	8.0 min
FLAME RESISTANCE	ASTM D 6413							
Char Length (inches [warp x fill])		< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	6.0 max	6.0 max
After Flame (seconds [warp x fill])		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		4.0 max
THERMAL PROTECTIVE PERFORMANCE (cal/cm ²)								
With spacer		9.6	9.8	12.3	10.0	10.0		6.0 min
Without spacer		6.6	6.5	10.9	7.5	8.0		3.0 min
FLASH FIRE EXPOSURE (Manikin Test)	ASTM F 1930							
(% body burn [2 cal/cm ² /sec] @ 3 sec)		22	29	13	23	19		50.0 max
TENSILE STRENGTH (lbs [warp x fill])	ASTM D 5034	114 x 85	105 x 80	135 x 85	135 x 85	145 x 90		
ELMENDORF TEAR STRENGTH (lbs [warp x fill])	ASTM D 1424	11 x 10	11 x 10	10 x 8	12 x 10	12 x 10		
DIMENSIONAL STABILITY (% [5x] 120°F)	AATCC 135	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0	≤ 3.0		
WICKING								
1" strip, tap water (seconds)	0.5 inches	3.5	3.5	3.5	3.5	3.5		
	1.0 inches	13.0	11.5	13.0	13.0	11.0		
	1.5 inches	29.0	28.0	29.0	29.0	29.0		
	2.0 inches	61.0	53.0	61.0	61.0	51.0		
PILLING RESISTANCE (%)	ASTM D 3512							
	30-120 minutes	*5	*5	*5	*4-5	*4-5		
THERMAL SHRINKAGE RESISTANCE								
(% [500°F, 5 minutes])		≤ 3.0	3.0	< 3.0	< 4.0	< 3.0		10.0 max

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.

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

*-These tests are not typically run on knit fabrics.

**-670Sp Swiss Pique Ball Burst (lb) ASTM D 3787-90

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