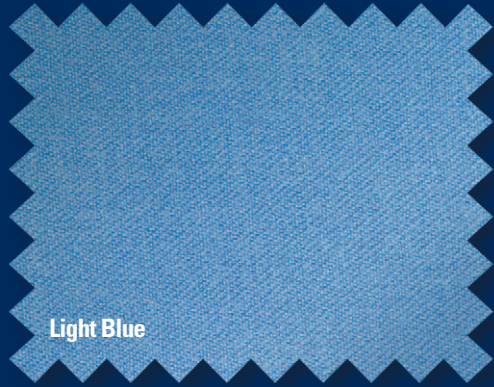


TENCATE
Tecasafe® plus



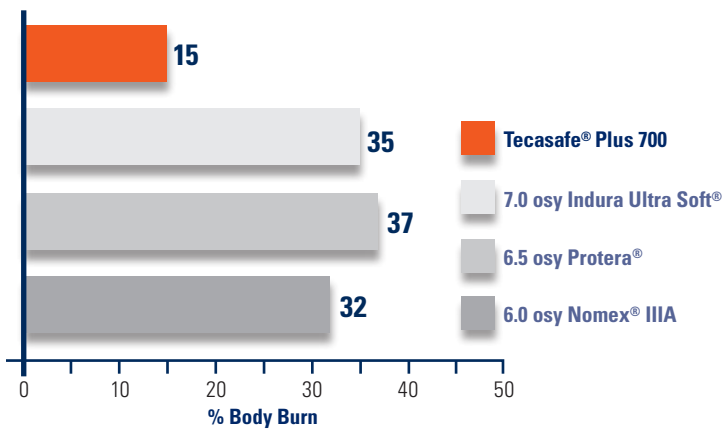
Unbeatable Flash Fire Protection.

TenCate Tecasafe® Plus is a comfortable, light-weight fabric with inherent heat and flame resistant properties. NFPA 2112 certified, it provides durable and affordable flash fire protection for workers in the petroleum, petrochemical, fire service, and other professionals that may be exposed to flash fire. Below, you will see how this inherently flame-resistant fabric provides superior protection and outperforms other protective fabrics.

There's also Tecasafe Plus Hi-Vis yellow. No need to wear a separate Hi-Vis vest over your flame resistant shirt.

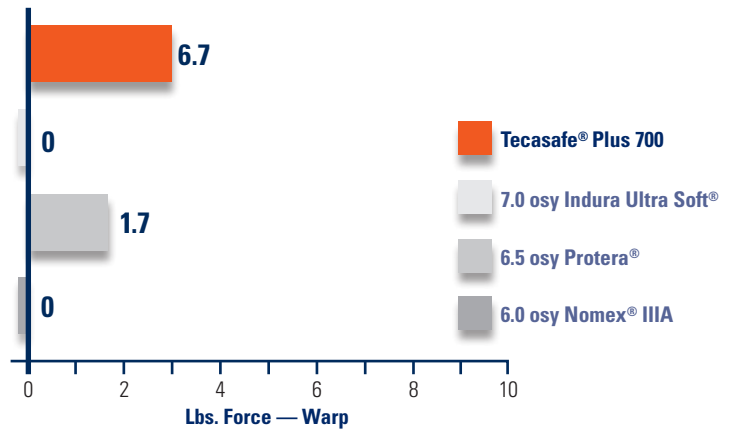
MANIKIN % BURN

ASTM F 1930 Manikin Test % Body Burn After 3 sec. Exposure



STRENGTH AFTER THERMAL EXPOSURE

ASTM D 5034 Tensile Strength Test After 10 sec. TPP Exposure



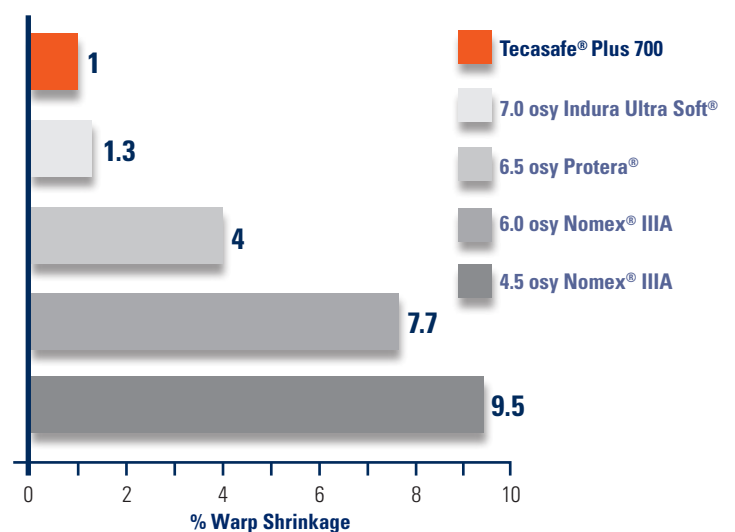
TABER ABRASION TEST RESULTS

	TECASAFE® PLUS 700	INDURA® ULTRA SOFT®	PROTERA®	NOMEX® IIIA
150 CYCLES				
250 CYCLES				

- **Inherently flame resistant** – FR properties are built in, and won't wash or wear out. Exceeds NFPA 2112 and NFPA 70E HRC 2 performance standards.
- **Comfortable to wear** – Soft and breathable. Superior moisture management because of special cellulosic fiber content.
- **Exceptional durability** – Outstanding abrasion resistance and better strength retention after multiple commercial washes.
- **Outstanding laundered appearance** – Fabric retains its like-new look and maintains permanent pressed appearance better than other protective fabrics.
- **Excellent value** – Long life cycle and competitive price means lowest cost.

RESISTANCE TO THERMAL SHRINKAGE

NFPA 2112 TPP Thermal Shrinkage Test





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	3.5 11.0 29.0 51.0		
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.



materials that make a difference

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.

©2010 TenCate Protective Fabrics. TenCate is a trademark of Royal Ten Cate. Tecasafe is a trademark of TenCate Protective Fabrics.



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