

TENCATE
Tecasafe® plus



Unbeatable Electric Arc Protection.

TenCate Tecasafe® Plus is a comfortable, light-weight fabric with inherent heat and flame resistant properties. NFPA 70E HRC 2 compliant, it provides durable and affordable electric arc protection to electricians, electrical contractors, and other professionals with potential exposure to electric arc flash. Below, you will see how this inherently flame-resistant fabric provides superior protection and outperforms the competition.

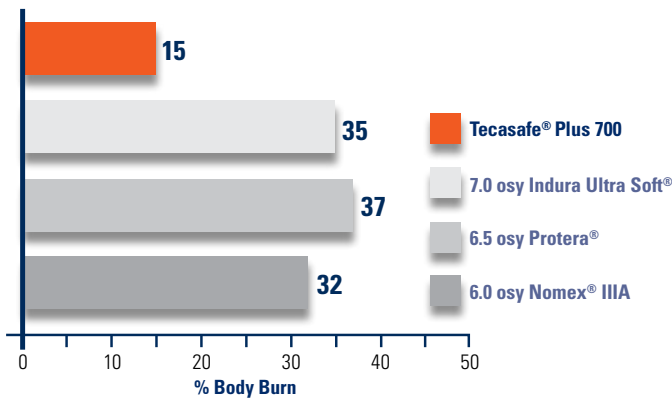
There's also Tecasafe Plus Hi-Vis yellow. No need to wear a separate Hi-Vis vest over your flame resistant shirt.

Unbeatable Flash Fire Protection.

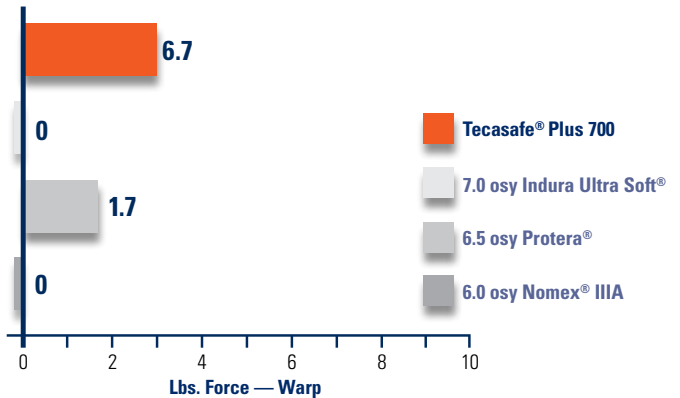
TenCate Tecasafe® Plus is a comfortable, light-weight fabric with inherent heat and flame resistant properties. NFPA 2112 certified, it provides durable and affordable flash fire protection for workers in the petroleum, petrochemical, fire service, and other professionals that may be exposed to flash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

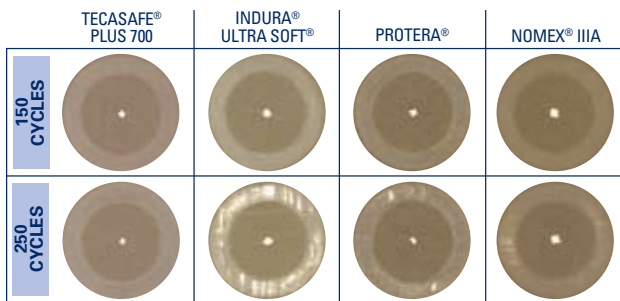
MANIKIN % BURN
ASTM F 1930 Manikin Test % Body Burn After 3 sec. Exposure



STRENGTH AFTER THERMAL EXPOSURE
ASTM D 5034 Tensile Strength Test After 10 sec. TPP Exposure

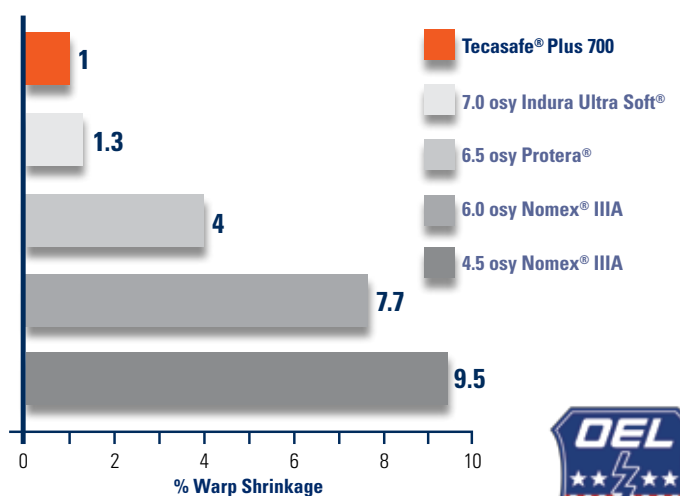


TABER ABRASION TEST RESULTS



- **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



OEL FR Shield, powered by TenCate Tecasafe® Plus



TENCATE Tecasafe® plus



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

PHYSICAL PROPERTIES			Tecasafe® Plus 700	Tecasafe® Plus 700-A	NFPA 70E Requirement HRC 1	NFPA 70E Requirement HRC 2	NFPA 2112 Requirement
Weight (±5%)	oz (sq yd) grams (sq meter)	5.8 oz 197 g	7.0 oz 238 g	7.0 oz 238 g			
Fiber Blend		48% fr-modacrylic 37% lycell 15% aramid	48% fr-modacrylic 37% lycell 15% aramid	45% fr-modacrylic 35% lycell 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	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	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			6.0 min 3.0 min
Flash Fire Exposure (Manikin Test) (% body burn [2 cal/cm ² /sec] @ 3 sec)	ASTM F 1930	23%	15%	23.5%			50.0 max
Tensile Strength (lbs [warp x fill])	ASTM D 5034	114 x 85	135 x 85	135 x 85			
Elmendorf Tear Strength (lbs [warp x fill])	ASTM D 1424	11 x 10	8.0 x 7.0	8.0 x 7.0			
Dimensional Stability (% [5x] 120°F)	AATCC 135	<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 30-120 minutes	ASTM D 3512	*5	*5	*4-5			
Thermal Shrinkage Resistance (% [500°F, 5 minutes])		<5.0	<1.0	<4.0			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



**OEL FR Shield, powered by
TenCate Tecasafe® Plus**

Laundry: Garments made with Tecasafe® Plus fabrics are easily maintained by home or industrial laundering. For detailed laundering 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.