



# Freestyle™ soft

INDUSTRIAL SAFETY

FREESTYLE™ SOFT fabric provides an even softer, more comfortable version of our hallmark FREESTYLE fabrics. Lightweight, breathable and soft, these innovative fabrics made of NOMEX® deliver the ultimate in comfort and durability. They're perfect for head-to-toe protection against flash fire and electric arc.

- **NFPA 2112 compliant:** Meets and exceeds standard for protection against flash fire.
- **Comfortable to wear:** Exceptionally soft without loss of protective performance.
- **Proven NOMEX performance:** Heat and flash-over protection for a broad range of high-risk industries. Perfect fit for electric and gas utilities, fire service stationwear, petroleum refineries, chemical companies and racing.
- **Maximum durability:** Maintains its professional look even after rugged use and multiple washings

FREESTYLE SOFT delivers peace of mind when lives are on the line. Only by TenCate.



Royal Blue

Orange

Fire Service Navy

● Orange ● Royal Blue ● Fire Service Navy

### PHYSICAL PROPERTIES

Weight (+ or - 5%) oz (sq yd) grams (sq meter)	5.5 oz (sq yd) 187g (sq meter)	6.0 oz (sq yd) 203g (sq meter)	ASTM F 1891 Requirements	NFPA 2112 Requirements
<b>Weave</b>	Twill	Twill		
<b>Standard Colors</b> (other colors available upon request)	● ● ●	● ●		
<b>Thickness (inches)</b>	0.020	0.022		
<b>Construction (warp [w] x fill [f])</b>	77 x 50	50 x 54		
<b>Vertical Flammability ASTM D 6413-99</b> After 100x Launderings Char Length (inches [w x f]) After Flame (seconds [w x f])	2.8 x 2.8 0.0 x 0.0	2.3 x 2.3 0.0 x 0.0	4.0 max. 2.0 max.	4.0 max. 2.0 max.
<b>Thermal Protective Performance (cal/cm²) NFPA 2112</b>	12.0 7.0	14.0 7.5	6.0 min. (w/ spacer) 3.0 min. (no spacer)	6.0 min. (w/ spacer) 3.0 min. (no spacer)
<b>Flash Fire Exposure (Manikin Test) ASTM F 1930</b> (% body burn [2.0 cal/cm² • sec] at 3 seconds)	pass	pass	50.0 max.	50.0 max.
<b>ARC Thermal Performance ATPV (cal/cm²) ASTM F 1959</b> After Flame @ 10 cal (seconds)	5.7 - 5.9 < 1.0	6.6 - 6.9 < 1.0		
<b>Tensile Strength (lbs [w x f]) ASTM D 5034</b>	215 x 125	260 x 240		
<b>Elmendorf Tear Strength (lbs [w x f]) ASTM D 1424</b>	16 x 12	16 x 13		
<b>Dimensional Stability AATCC 135</b> 3-IV, Aiii (both directions)	≤ 3.0	≤ 3.0		
<b>Air Permeability (ft³/ft²/minutes) ASTM D 737</b>	60	60		
<b>Washing Colorfastness</b> 140°F Industrial Wash, 160°F Max Stack Dry [25x]	*4 *4	*4 *4		
<b>Colorfastness to Xenon Light (20 hours) AATCC 16</b>	*3-4	*3-4		
<b>Crocking AATCC 8</b> <b>Wet</b> <b>Dry</b>	*3-4 - All Colors *5 - All Colors	*3-4 - All Colors *5 - All Colors		
<b>Wicking (distance in seconds)</b> (1" strip, tap water)	0.5 inches 1.0 inches 1.5 inches 2.0 inches	3 12 34 70	3 12 34 70	
<b>Theoretical Moisture Regain (%)</b>	4.5	4.5		
<b>Pilling Resistance ASTM D 3512</b>	30 minutes 60 minutes 90 minutes 120 minutes	*3 *4 *5 *5	*3 *4 *5 *5	
<b>Heat Resistance (500°F, 5 minutes)</b> After 100 Industrial Launderings	pass	pass	shall not melt, drip, separate or ignite	shall not melt, drip, separate or ignite
<b>Thermal Shrinkage Resistance (%[500°F, 5 minutes])</b> After 100 Industrial Launderings	< 2.0	< 2.0	10.0 maximum	10.0 maximum
<b>Appearance of Fabric AATCC 124</b> After 50 Home Launderings	*4	*4		

Ratings: \*5 - Best, \*3 - Acceptable, \*1 - Poor



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

LAUNDERING: Garments made with FREESTYLE™ fabrics are easily maintained by home or industrial laundering. For detailed laundering specifications, please contact TENCATE at (800) 241-8630.

SUNLIGHT/UV EXPOSURE ADVISORY: Prolonged sunlight and UV exposure can be damaging to aramid and PBO fibers. Both natural (undyed) and dyed aramid and PBO fibers will fade or change color with exposure to sunlight or other UV sources. The thermal performance is not affected, but long term or repeated exposures will cause the fabric to gradually weaken. Garments should be stored so that they are protected from sunlight, including windows and bay doors, to maximize wear life. SOUTHERN MILLS, Inc. OFFERS NO WARRANTIES, IMPLIED OR OTHERWISE, FOR COLOR CHANGE OR FABRIC DAMAGE DUE TO UV EXPOSURE.

To the best of our knowledge, the information contained herein is accurate. However, SOUTHERN MILLS, Inc. 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.

©2008 SOUTHERN MILLS, Inc. TENCATE is a trademark of ROYAL TEN CATE NV. FREESTYLE is a trademark of SOUTHERN MILLS, Inc. SOUTHERN MILLS, Inc. patents pending.

08/28/08 162-08-022 940.1238 without sample/940.1239 with sample

materials that make a difference

### TenCate Protective Fabrics

SOUTHERN MILLS, Inc.

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.tencate.com/protective](http://www.tencate.com/protective)