



THE NEXT EVOLUTION IN FR

 **TECASAFE®**  
**EVOLV™**

DATA SHEET

## GENERAL ATTRIBUTES

<b>Nominal Weight</b>	<b>5.5 osy</b> (185 gsm)
<b>Construction</b>	<b>Woven</b> (Twill)
<b>Colors</b>	<b>Navy Blue</b> and <b>Charcoal Gray</b>
<b>Made in America</b> (Fabric)	<b>Yes</b>
<b>Features</b>	<b>COOLDERM™ Technology</b> and <b>TRUECOLOR™ Technology</b>
<b>Compliance</b>	<b>NFPA 2112, NFPA 70E</b> (PPE Category 2) and <b>ASTM F1506</b>

## FLAME RESISTANCE

<b>Manikin Burn</b> (NFPA 2112, ASTM F1930) Predicted Body Burn (3 sec)	<b>35 percent</b>
<b>Arc Thermal Performance Value (ATPV)</b> (NFPA 70E, ASTM F1959) PPE Category 2	<b>8.5 cal/cm<sup>2</sup></b>
<b>Vertical Flame: After Flame</b> (NFPA 2112, WARP X FILL)	
Initial	<b>0 x 0 sec</b>
After Wash (5x)	<b>0 x 0 sec</b>
<b>Vertical Flame: Char Length</b> (NFPA 2112, WARP X FILL)	
Initial	<b>&lt; 2.0 X &lt; 2.0 in (&lt; 51 x &lt; 51 mm)</b>
After Wash (100x IL)	<b>&lt; 3.0 X &lt; 2.0 in (&lt; 76 x &lt; 51 mm)</b>
<b>Vertical Flame: After Glow</b> (NFPA 2112, WARP X FILL)	
Initial	<b>10.2 x 10.4 sec</b>
<b>Heat Transfer Performance (HTP)</b> (ASTM F2700)	
Initial: With spacer	<b>10.6 cal/cm<sup>2</sup></b>
Initial: Without spacer	<b>6.4 cal/cm<sup>2</sup></b>
After Wash (3X IL): With spacer	<b>10.7 cal/cm<sup>2</sup></b>
<b>Thermal Shrinkage</b> (NFPA 2112, WARP X FILL)	
Initial	<b>0.7 x 0.4 percent</b>
After Wash (3x IL)	<b>0.0 x 0.4 percent</b>

## PHYSICAL TESTING

### Tensile Strength

(ASTM D5034, WARP X FILL)

**109 x 89 lbf (485 x 396 N)**

### Elmendorf Tear

(ASTM D1424, WARP X FILL)

**10 x 10 lbf (44 x 44 N)**

### Martindale Abrasion

(ASTM D4966)

**80,000 cycles**

## COMFORT TESTING

### Air Permeability

(ASTM D737-96)

**67.0 cfm/ft<sup>2</sup> (39.5 m<sup>3</sup>/sec/cm<sup>2</sup>)**

### Vertical Wicking

(AATCC 197)

0.5 in (13 mm)

**16.5 sec**

1.0 in (25 mm)

**38.0 sec**

1.5 in (38 mm)

**114.0 sec**

2.0 in (51 mm)

**188.0 sec**

### Wicking Droplet Test

(AATCC 79)

Initial

**< 5 sec**

After Wash (25X PP120)

**< 2 sec**

## APPEARANCE TESTING

### Color Fastness: Laundering

Score: 5 (Best) to 1 (Worst)

Shade Change

**4 - 5**

Staining Overall

**4 - 5**

### Color Fastness: Crocking

Score: 5 (Best) to 1 (Worst)

Dry

**4.5**

Wet

**3**

### Color Fastness: Perspiration

Score: 5 (Best) to 1 (Worst)

AATCC Acid Solution

**5**

Alkaline Solution

**5**

### Color Fastness: Xenon Light Exposure

Score: 5 (Best) to 1 (Worst)

After 20 Hours

**5**

After 40 Hours

**5**

After 60 Hours

**5**

## APPEARANCE TESTING (continued)

### Laundry Shrinkage

After Wash (5X PP120)

1.9 x 0.2 percent

### Pilling Resistance

Score: 5 (Best) to 1 (Worst)

Initial: 30 min	4
Initial: 60 min	4
Initial: 90 min	4
Initial: 120 min	4
After Wash (5X IL): 30 min	5
After Wash (5X IL): 60 min	5
After Wash (5X IL): 90 min	5
After Wash (5X IL): 120 min	5

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