



50% MicroTwaron®
30% Lenzing FR®
20% PBI®



TECHNICAL SPECIFICATIONS

Rev:190310

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Product			PbiTRIGUARD® 590																																					
Weight			5.3 oz/yd ² 180 g/m ²																																					
Fiber Content			50%MicroTwaron® 30%Lenzing FR® 20%PBI®																																					
Weave Type			Rip Stop																																					
Finish			Stay Dry Plus™																																					
Width			61" (155 cm)																																					
End Use			Shirts, Pants, Coveralls, Jackets - EMS																																					
Color																																								
Test	Method & Specification		Performance																																					
Flame resistance - as is																																								
After flame (sec)	ASTM D6413	max. 2 sec	<table border="1"> <tr> <td>Warp</td> <td>Fill</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>24 mm 0.9"</td> <td>23 mm 0.9"</td> </tr> <tr> <td colspan="2" style="text-align: center;">complies</td> </tr> <tr> <td>Warp</td> <td>Fill</td> </tr> <tr> <td>29 mm 1.1"</td> <td>30 mm 1.2"</td> </tr> <tr> <td>initial: < 2</td> <td>10 washes: < 8</td> </tr> <tr> <td colspan="2" style="text-align: center;">complies</td> </tr> <tr> <td>≤ 4</td> <td>≤ 4</td> </tr> <tr> <td colspan="2" style="text-align: center;">6.2 (Level 1)</td> </tr> <tr> <td colspan="2" style="text-align: center;">9.1</td> </tr> <tr> <td>as is: 13.3</td> <td>washed: 15.2</td> </tr> <tr> <td colspan="2" style="text-align: center;">735.6</td> </tr> <tr> <td>≤ 3</td> <td>≤ 3</td> </tr> <tr> <td>700 N 157 lbf</td> <td>700 N 157 lbf</td> </tr> <tr> <td>80 N 18 lbf</td> <td>80 N 18 lbf</td> </tr> <tr> <td>70 N 16 lbf</td> <td>75 N 17 lbf</td> </tr> <tr> <td>H18:130 Cycles</td> <td>H38: 2000 Cycles</td> </tr> </table>		Warp	Fill	0	0	24 mm 0.9"	23 mm 0.9"	complies		Warp	Fill	29 mm 1.1"	30 mm 1.2"	initial: < 2	10 washes: < 8	complies		≤ 4	≤ 4	6.2 (Level 1)		9.1		as is: 13.3	washed: 15.2	735.6		≤ 3	≤ 3	700 N 157 lbf	700 N 157 lbf	80 N 18 lbf	80 N 18 lbf	70 N 16 lbf	75 N 17 lbf	H18:130 Cycles	H38: 2000 Cycles
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Char length (mm)		max. 100 mm or 4"																																						
Melt / Drip		no melt, no drip																																						
Flame resistance - 100 washes																																								
Char length (mm)		max. 100 mm or 4"																																						
Water Absorption resistance	NFPA 1951	max. 15%																																						
Heat resistance - as is	500°F/5 min.	no melt, separation, dripping or ignition																																						
Thermal shrinkage (%) as is		max. 10%																																						
Electric Arc Resistance	ASTM F1959 ATPV (cal/cm2)																																							
RPP - 5 washes	NFPA 1977	min. 7 cal/cm ²																																						
TPP with spacer	NFPA 1951	min. 10 cal/cm ²																																						
THL - as is	NFPA 1951	min. 650 W/m ²																																						
Cleaning shrinkage (%) 5 cycles	AATCC 135 1 - IV - Ai	max. 5%																																						
Tensile Strength-Grab(N) 10 washes	NFPA 1951	min. 400 N (90 lbf)																																						
Tear resistance-Trap(N) as is	NFPA 1951	min. 30 N (6.75 lbf)																																						
Tear resistance-Trap(N) 10 washes	NFPA 1951	min. 30 N (6.75 lbf)																																						
Taber Abrasion	H18, 500 g & H38, 500 g																																							
Component Certified by UL for:	NFPA 1951 ed. 2007		Yes																																					
	NFPA 1999 ed. 2008		Yes																																					
	NFPA 1977 ed. 2005		Yes																																					
	CAN/CGSB 155.22 ed. 1997		Yes																																					
Other:	ASTM F1506 (NFPA 70E / CSA Z462)		meet requirements																																					



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