

## Quality Assurance & Compliance Testing **Utilizing Textile & Related Technologies**

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## **Third Party** CERTIFICATE OF CONFORMANCE

to Performance Requirements of NFPA 2112-2012 Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire

XM Textiles Submitter: Item: Fabric Submitted

Selene-7, 260 gsm, Twill 3/1, FR (150 cm Width)

88% Cotton, 12% Nylon; Color Red

This item MEETS the requirements of NFPA 2112-2012, for the material performance tests performed and referenced below

NFPA 2112-2012 Standard Requirements		Test Procedure and Reported Material Performance			
		7	Initial,	After Washing/Drying	<u>MEETS</u>
7.1 Fabric Requirements			As Received	per 8.1.3	<u>RQMT</u>
7.1.1 heat transfer performance (HTP)	"spaced" HTP rating not less than 25 J/cm <sup>2</sup> (6.0 cal/cm <sup>2</sup> )	8.2	8.96 cal/cm <sup>2</sup>	9.70 cal/cm <sup>2</sup> (after 3 cycles)	$\sqrt{}$
	"contact" HTP rating of not less than 12.6 J/cm <sup>2</sup> (3.0 cal/cm <sup>2</sup> )		8.07 cal/cm <sup>2</sup>	8.70 cal/cm <sup>2</sup> (after 3 cycles)	$\sqrt{}$
7.1.2 Flame resistance	char length of not more than 100 mm (4 in.) after-flame of not more than 2 seconds shall not melt and drip	8.3	Char length Length: 94 mm Width: 78 mm After-flame: 0s No melting No dripping	Char length Length: 89 mm Width: 92 mm After-flame: 0s No melting No dripping (after 100 cycles)	$\sqrt{}$
7.1.3 thermal shrinkage resistance (non-cold weather insulation material)	shall not shrink more than 10 percent in any direction	8.4	Length: -0.7% Width: -0.8%	Length: -1.3% Width: -2.7% (after 3 cycles)	$\checkmark$
7.1.4 heat resistance (fabric)	shall not melt and drip, separate, or ignite	8.4	No melting No dripping No separation No ignition	No melting No dripping No separation No ignition (after 3 cycles)	$\checkmark$
7.1.5 overall flash fire exposure (specimen garments)	average predicted body burn of not more than 50 percent based on the total surface area covered by sensors, excluding hands and feet	8.5		4.1% (after 1 cycle)	$\checkmark$

Certificate authorized by:

Adam R. Varley Technical Director

> Cert ID: XMTEXT.A122713A1 Date: 25 April 2014

Report References: 122713A, 2014US0044