

Date:  
Tue, May 24, 2011

Kinectrics ref #  
K-418325-05-7

## Test Report

Kinectrics Inc., 800 Kipling Avenue, Unit 2  
Toronto, Ontario, Canada  
Tel: 416-207-6000, www.kinectrics.com



### Kinectrics Client

Josh Moody  
Westex  
773-523-7000  
jmoody@westex.com

### Contact information for item tested:

### Test item description

13.4 oz, Navy Style 801 UltraSoft (88% cotton / 12% nylon) over  
9.6 oz, Navy Style 451 UltraSoft (88% cotton / 12% nylon)

### Reference Standard

#### **ASTM F1959/F1959M-06ae1**

**Standard Test Method for Determining Arc Thermal Performance of Textile Materials for Clothing by Electric Arc Exposure Method**

### Test Parameters:

Test current: 8 kA	Number of samples analysed: 21
Distance to Fabric: 12 inches	
Arc Gap: 12 inches	Incident Energy Range: 21 to 33 cal/cm <sup>2</sup>

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**Arc Rating, ATPV = 25.3 Cal/cm<sup>2</sup>**  
**Heat Attenuation Factor, HAF = 90.8%**

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### Summary

The Arc Rating of this material is intended for use as flame resistant clothing for workers exposed to electric arcs. The material used in this test method are in the form of flat specimens. The material was tested as received. Actual performance of the complete garment may vary depending on the final design and assembly of the garment. Based on the data obtained and analysed in accordance with the latest version of the applicable standards, the following Arc Rating was calculated. Individual test sheets, graphs, photographs of the samples and video of every test are provided in digital format to the Client for review.

### Note

- The test performed does not apply to electrical contact or electrical shock hazard.
- The test result is applicable only to the Test Item, other material or color may have different protection level.

The testing performed in this report is accredited by the Standards Council of Canada to conform to the requirements of CAN-P-4E (ISO/IEC 17025:2005). General Requirements for the Competence of Testing and Calibration Laboratories. Kinectrics Inc takes reasonable steps to ensure that all work performed shall meet the industry standards and that all reports shall be reasonably free of errors, inaccuracies or omissions. KINETRICS INC. DOES NOT MAKE ANY WARRANTY OR REPRESENTATION WHATSOEVER, EXPRESS OR IMPLIED, WITH RESPECT TO THE MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY INFORMATION CONTAINED IN THIS REPORT OR THE RESPECTIVE WORKS OR SERVICES SUPPLIED OR PERFORMED BY KINETRICS INC. Kinectrics Inc. does not accept any liability for any damages, either directly, consequentially or otherwise resulting from the use of this report.

Approved by:

Claude Maurice, Lab Manager  
High Current Laboratory  
Ph: 416-207-6305, hcl@kinectrics.com

Date:  
Tue, May 24, 2011

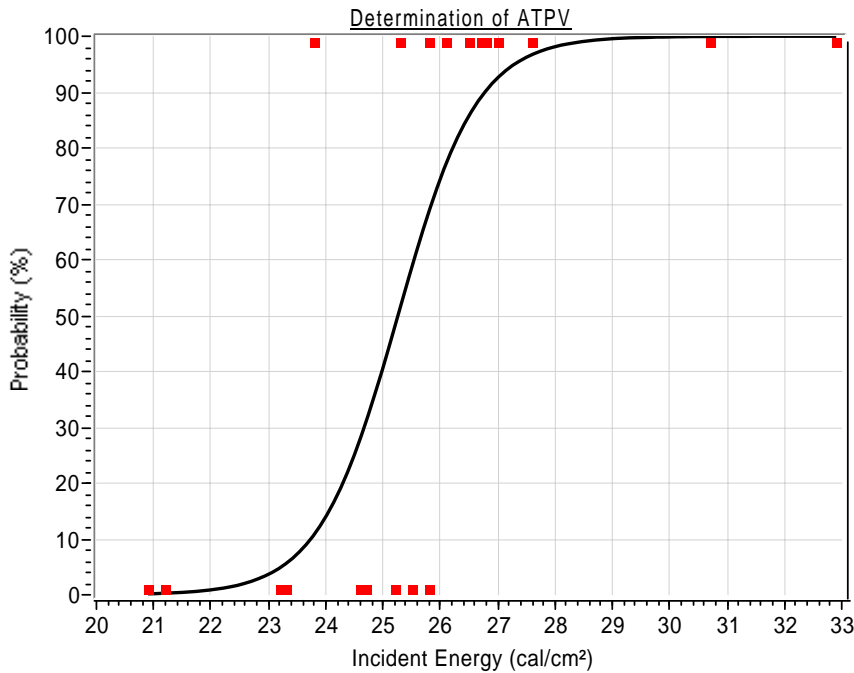
Determination of ATPV by performing logistic regression on panel burn response as indicated in Summary Table

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Test Performed in accordance with : ASTM F1959/F1959M-06ae1



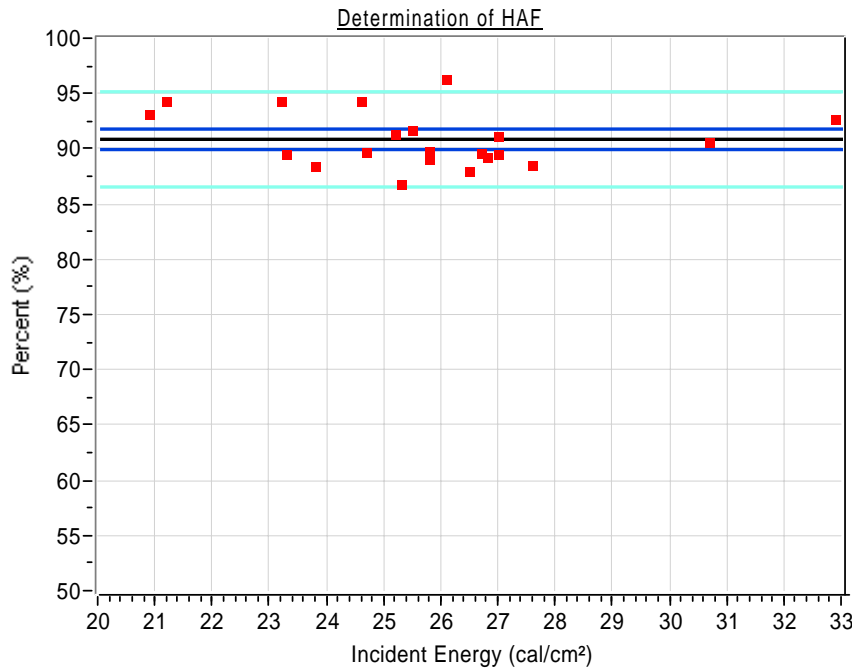
**Fabric** 13.4 oz, Navy Style 801 UltraSoft (88% cotton / 12% nylon) over  
**Description:** 9.6 oz, Navy Style 451 UltraSoft (88% cotton / 12% nylon)



**ATPV = 25.3 cal/cm²**

Probability of Break-Open	Ei
5%	23.2
10%	23.7
20%	24.3
30%	24.7
40%	25.0
50%	25.3
60%	25.5
70%	25.8
80%	26.2

# Pts = 21  
 # Pts above Stoll = 12  
 # Pts Break-Open = 0  
 # Pts always >STOLL = 10  
 # Pts always <STOLL = 4  
 # Pts within 20% = 19  
 # Pts in mix zone = 6



**HAF = 90.8 %**

Confidence Intervals  
95% CI = 89.9 , 91.8

Data pts

Best Fit

95% CI

95% CI pts

