Date:

February 23, 2009

Report #

K-418167

High Current Test Laboratory Kinectrics Inc., Canada Test Summary



Client

Westex, Inc. 2845 W. 48th Place Chicago, IL 60632

Fabric description

7.0 oz/yd² Style 20 Indura Work, Navy

Reference Standard

ASTM F1959/F1959M-06Standard Test Method for Determining The Arc Rating Of Materials for Clothing

Test Parameters: Test current: 8kA Number of samples analysed: 24

Distance to Fabric: 12 inches Incident Energy Range: 6 to 11 cal/cm²

Arc Gap: 12 inches

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, actual performance of the complete garment may vary depending on the final design and assembly of the garment. This test method does not apply to the electrical contact or electrical shock hazard.

Based on the data obtained and analysed in accordance with the latest version of the applicable standards, the following Arc Rating was calculated.

Arc Thermal Performance Value, ATPV = 8.0 Cal/cm² Heat Attenuation Factor, HAF = 68.7%

The measured data and observations of the test samples after the arc exposure were collected and summarized in the attached table. The graphs and statistics on the attached sheets provide more detailed information to better understand the Arc Rating assigned to this item. The client shall review this full report, the video recordings of the arc exposure and the photographs of the samples after the test to determine if the material meets the intended specification.

Test performed by:

Claude Maurice Kinectrics, Inc. 416-207-6305 HCL@kinectrics.com

Contact information

Josh Moody Westex, Inc. 773-523-7000 jmoody@westexinc.com

ASTM F1959/F1959M-06

Standard Test Method for Determining The Arc Rating Of Materials for Clothing

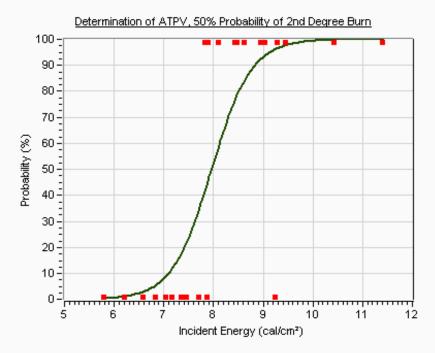


Client: Westex, Inc.

2845 W. 48th Place Chicago, IL 60632

Fabric 7.0 oz/yd² Style 20 Indura Work, Navy

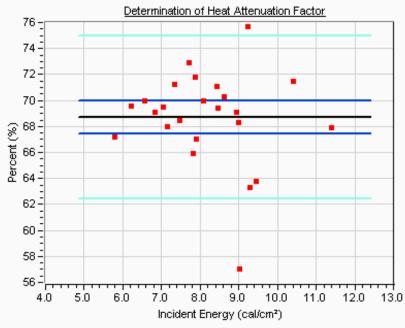
Description:



$ATPV = 8.0 \text{ cal/cm}^2$

Probability of Burn	Ei		
5%	6.8		
10%	7.1		
20%	7.4		
30%	7.6		
40%	7.8		
50%	8.0		
60%	8.1		
70%	8.3		
80%	8.5		
90%	8.8		

Pts = 24
Pts above Stoll = 13
Pts Break-Open = 0
Pts always > STOLL = 4
Pts always < STOLL = 9
Pts within 20% = 20
Pts in mix zone = 11



HAF = 68.7 %

Confidence Intervals 95% CI = 67.4 , 70.0

Data pts
Best Fit
95% CI
95% CI pts



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ASTM F1959/F1959M-06 Standard Test Method for Determining The Arc Rating Of Materials for



Westex, Inc. Client:

2845 W. 48th Place Chicago, IL 60632

 $\begin{array}{ccc} \textbf{Fabric} & 7.0 \text{ oz/yd}^2 \text{ Style 20 Indura Work, Navy} \\ \textbf{Description:} & \end{array}$

	Test#	Panel	Cycles # (60Hz)	Ei cal/cm²	SCD cal/cm²	HAF %	Burn yes/no	Break Open Y/N	After Flame sec.	Omit Y/N	Comment	Ignition T-shirt
1	09-636	Α	12.1	9.44	1.39	63.8	Yes	-	+	No		7
2	09-636	В	12.1	11.39	1.75	67.9	Yes	152	1.5	No		
3	09-636	С	12.1	9.03	1.81	57.0	Yes			No		74
1	09-637	Α	10.1	7.83	0.34	65.9	Yes	-	- 1	No		
5	09-637	В	10.1	10.42	0.71	71.5	Yes	(#S)		No		
6	09-637	С	10.1	8.61	0.20	70.3	Yes	: :	•	No		9
7	09-638	Α	8.1	7.71	-0.31	72.9	No	1828	- 1	No		
В	09-638	В	8.1	7.35	-0.32	71.2	No	5 * 5		No		
9	09-638	С	8.1	6.83	-0.22	69.1	No	-	1	No		18
0	09-639	Α	7.1	6.21	-0.39	69.6	No	07/2	-5	No		
1	09-639	В	7.1	7.04	-0.24	69.5	No	-		No		74
2	09-639	С	7.1	5.79	-0.35	67.2	No	-	-	No		
3	09-640	Α	9.1	8.46	0.23	69.4	Yes		27	No		
4	09-640	В	9.1	6.57	-0.37	70.0	No	-	-	No		
5	09-640	С	9.1	7.16	-0.13	68.0	No	-	-	No		
6	09-641	Α	10.1	8.95	0.46	69.1	Yes	-	•	No		
7	09-641	В	10.1	8.09	0.03	70.0	Yes	-	•	No		
8	09-641	С	10.1	7.87	-0.11	71.8	No	-	1	No		
9	09-642	Α	10.1	9.00	0.56	68.3	Yes	-	-	No		
0	09-642	В	10.1	7.46	-0.08	68.5	No	-	-	No		
1	09-642	С	10.1	9.28	1.16	63.3	Yes	-	-	No		
2	09-643	Α	10.6	9.23	-0.12	75.7	No	-	-	No		
3	09-643	В	10.6	8.42	0.03	71.1	Yes	-	-	No		
4	09-643	С	10.6	7.89	0.22	67.0	Yes	-	-	No		
5												
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