Report # K-814101-1701P07-R00	Test Report
Samples Received: Dec-20-16 / Samples Tested: Jan-17-17	Kinectrics Inc., 800 Kipling Avenue, Unit 2 Toronto, Ontario, Canada Tel: 416-207-6000, www.kinectrics.com

Tested for

ArcWear
3018 Eastpoint Parkway
Louisville, KY 40223
502-333-0510

Contact information for item tested:

Cia de Fiação e Tecidos Cedro Cachoeira
Rua Policena Mascarenhas 680
Sete Lagoas, Minas Gerais, 35700-184 Brazil
+ 55 31 3773 5500

Test item description

Cia de Fiação e Tecidos Cedro Cachoeira,
Style Jupiter FR , 7.7 oz/yd² 260 g/m² 3x1 Twill,
88% FR Cotton 12% Polyamide, Grey,
AAD 8.1 oz/yd² 274 g/m²,
ArcWear# 1701P07

Reference Standard

IEC 61482-1-1:2009 Method A, ASTM F1959/F1959M-14
Complying with both IEC and ASTM Standard Test Method for Determining the Arc Rating of Materials for Clothing

Test Parameters:

Test current: 8 kA
Arc Gap: 30 cm
Distance to Fabric: 30 cm

Number of samples analysed: 21

Incident Energy Range: 7 to 15 cal/cm²

Arc Rating, ATPV = 11 Cal/cm²
Heat Attenuation Factor, HAF = 79%

No variations to standard method noted.
Samples tested as received, pre-test laundering as required by standard was arranged by client.

Test Summary

The Arc Rating of this material is intended for use as part of a flame resistant garment or system for workers exposed to electric arcs. The test result is applicable only to the test item as described; other fiber blends, weaves, finishing or dye may have different protection level. The test articles are tested as received; no test is done to validate the fiber content or composition. The Arc Rating was calculated based on the data obtained and analysed in accordance with the latest version of the applicable standards. The individual test sheets, graphs, photographs of the samples and video of every test are provided in digital format to the Client for review.

The arc testing performed to the above mentioned Standard is accredited by the Standards Council of Canada (SCC) to conform to the requirements of CAN-P-4E (ISO/IEC 17025:2005). Accreditation by the Standards Council of Canada (SCC) is a mark of competence and reliability recognized throughout the world.

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Note: The test performed does not apply to electrical contact or electrical shock hazard.

Prepared by:

Andrew Haines
Date: 2017.01.23 18:28:31 -05'00'

Andrew Haines
HCL Technologist
Ph: 416-207-6000

Approved by:

Digitally signed by Kenneth Cheng
DN: cn=Kenneth Cheng, o, ou, email=Kenneth.Cheng@Kinectrics.com, c=CA
Date: 2017.01.25 10:39:20 -05'00'

Kenneth Cheng, M.Eng., P.Eng., MBA
Senior Engineer
Kinectrics Inc.

Note: For verification about results in this report, please forward copy of the report or inquiry to hcl@kinectrics.com

Date: Jan-17-17	Determination of ATPV by performing logistic regression on the panel burn response as indicated in Summary Table
Report # K-814101-1701P07-R00	Test Performed in accordance with: IEC 61482-1-1:2009 Method A, ASTM F1959/F1959M-14

KINECTRICS

Fabric Description:

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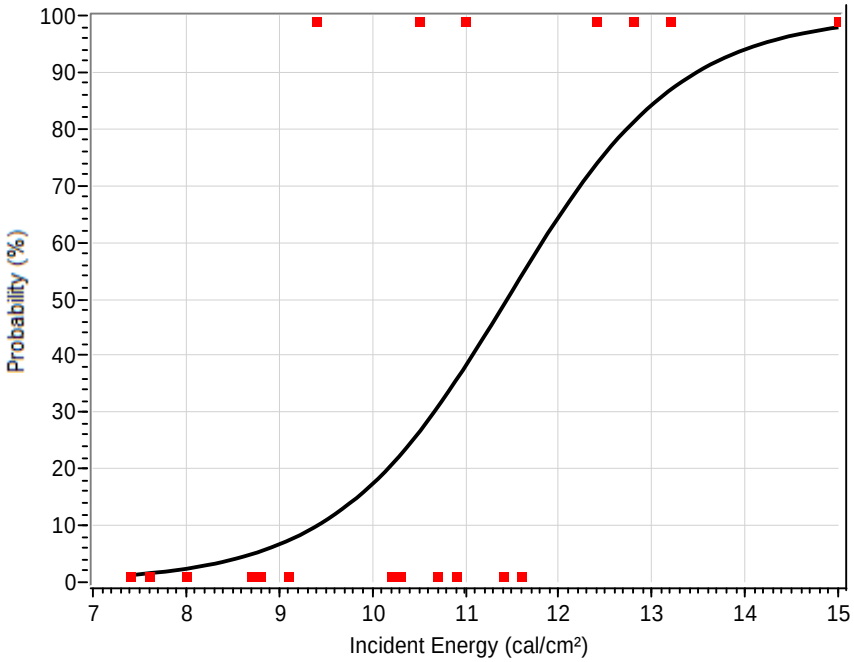
ArcWear# 1701P07

Determination of ATPV



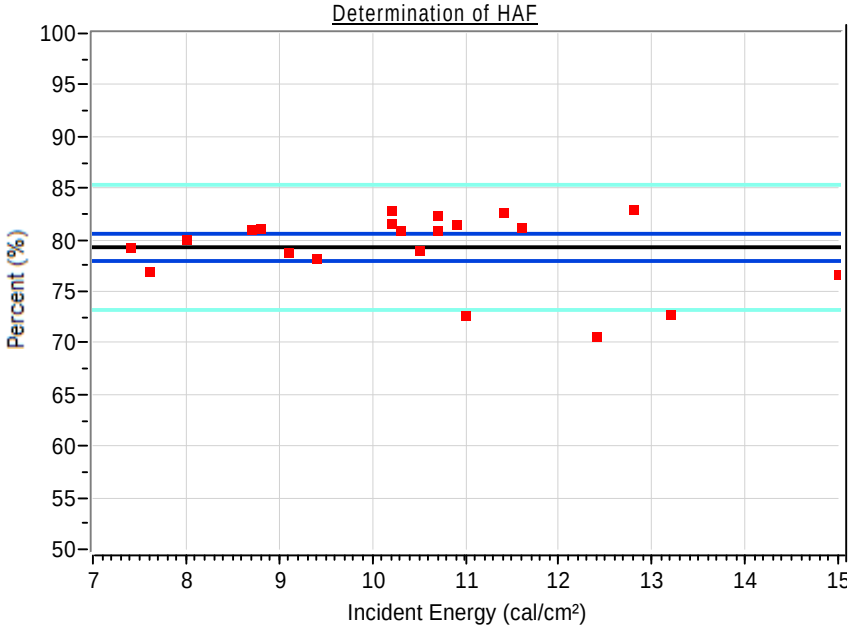
ATPV = 11 cal/cm²

Probability	Ei
5%	8.7
10%	9.4
20%	10.2
30%	10.7
40%	11.1
50%	11.5
60%	11.8
70%	12.2
80%	12.7
90%	13.5

(Note: ATPV is reported to nearest integer for ratings above 10 cal/cm²)

Total points analyzed = 21
Points above Stoll = 7
Points above mix zone = 4
Points below mix zone = 6
 # Pts within 20% = 14
 # Pts in mix zone = 11

Determination of HAF



HAF = 79 %

Confidence Intervals
95% CI = 77.7 , 80.3

Data pts
Best Fit
95% CI
95% CI pts

Date: Jan-17-17	Summary of Measured Energy and Observations	KINECTRICS
Report # K-814101-1701P07-R00	Test Performed in accordance with : IEC 61482-1-1:2009 Method A, ASTM F1959/F1959M-14	

Fabric Description: Cia de Fiação e Tecidos Cedro Cachoeira,
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ArcWear# 1701P07

	Test #	Panel	Test Current A	Cycles of 60Hz	Ei Cal/cm²	SCD Cal/cm²	HAF %	>Stoll Y/N	Break Open Y/N	Ablation Y/N	After Flame sec.	Omit Y/N	Comment
1	K-814101-122	A	8313	10.2	7.6	-0.3	77.0	No	-	-	-	No	
2	K-814101-122	B	8313	10.2	8.7	-0.3	81.0	No	-	-	-	No	
3	K-814101-122	C	8313	10.2	10.2	-0.1	81.6	No	-	-	-	No	
4	K-814101-123	A	8263	11.2	9.1	-0.1	78.8	No	-	-	-	No	
5	K-814101-123	B	8263	11.2	10.2	-0.3	82.9	No	-	-	-	No	
6	K-814101-123	C	8263	11.2	10.5	0.2	79.0	Yes	-	-	-	No	
7	K-814101-124	A	8266	12.2	9.4	0.0	78.2	Yes	-	-	-	No	
8	K-814101-124	B	8266	12.2	10.7	-0.2	82.4	No	-	-	-	No	
9	K-814101-124	C	8266	12.2	10.7	-0.1	80.9	No	-	-	-	No	
10	K-814101-125	A	8245	13.2	10.9	-0.1	81.5	No	-	-	-	No	
11	K-814101-125	B	8245	13.2	11.4	-0.3	82.7	No	-	-	-	No	
12	K-814101-125	C	8245	13.2	12.8	0.0	83.0	Yes	-	-	-	No	
13	K-814101-126	A	8233	15.2	11.0	0.7	72.7	Yes	-	-	-	No	
14	K-814101-126	B	8233	15.2	12.4	1.6	70.7	Yes	-	-	-	No	
15	K-814101-126	C	8233	15.2	15.0	1.4	76.7	Yes	-	-	-	No	
16	K-814101-127	A	8218	14.2	10.3	-0.2	80.9	No	-	-	-	No	
17	K-814101-127	B	8218	14.2	13.2	1.5	72.8	Yes	-	-	-	No	
18	K-814101-127	C	8218	14.2	11.6	-0.1	81.2	No	-	-	-	No	
19	K-814101-128	A	8313	9.2	7.4	-0.4	79.3	No	-	-	-	No	
20	K-814101-128	B	8313	9.2	8.8	-0.3	81.1	No	-	-	-	No	
21	K-814101-128	C	8313	9.2	8.0	-0.3	80.1	No	-	-	-	No	
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No evidence of afterflame or breakopen in samples tested.