

Report # K-418929-1608F01-R01

Samples Received:
Aug-18-16

Samples Tested:
Sep-14-16

Test Report

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:

BSD GmbH
Lutherstrasse 33
Grossroehrsdorf 01900 Germany
+49 35952 41025

Test item description

BSD GmbH, Faceshield,
Model: ErgoS 2 Power; Article: 74065xx,
Lens: Mfg. BSD GmbH, 50 Special, Polycarbonate, Grey; Special, Thickness 1.5 mm,
Hard Hat: Mfg. North, Model A79,
ArcWear# 1608F01

Reference Standard

ASTM F2178-12
Standard Test Method for Determining the Arc Rating and Standard Specification for Eye or Face Protective Products

Test Parameters:

Test current: 8 kA	Number of samples analysed: 20
Arc Gap: 30 cm	
Distance to Fabric: 30 cm	Incident Energy Range: 20 to 32 cal/cm ²

Arc Rating, ATPV = 26 Cal/cm²
Heat Attenuation Factor, HAF = 94%

No variations to standard method noted.

**Rev. 1 - Original model name changed from "ErgoS Power 2" at request of Thomas Jordan of BSD on June 9, 2017 due to a change in their internal catalogue number.
Samples tested as received.**

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.

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Prepared by:

Approved by:

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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:
Sep-14-16

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

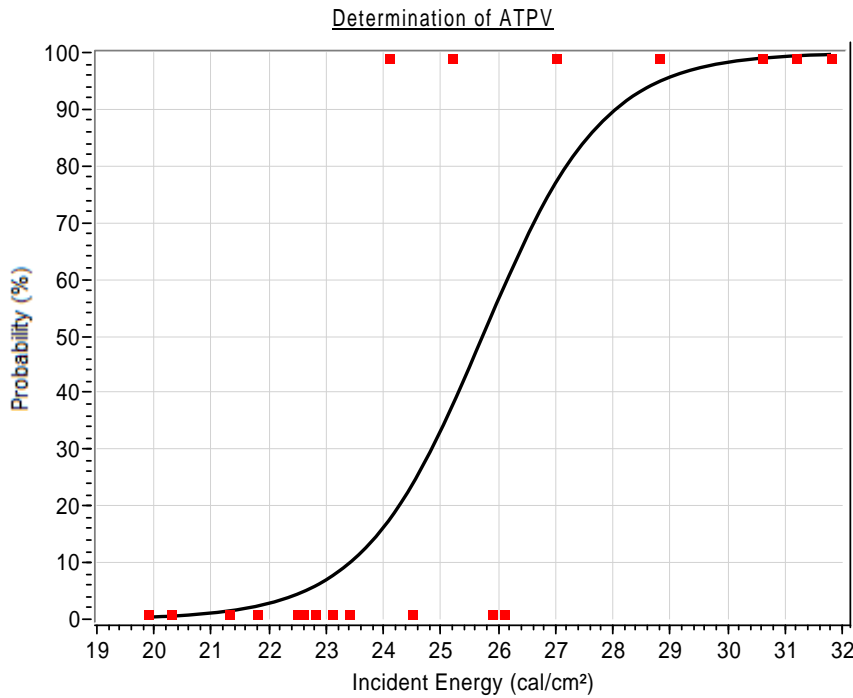


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Test Performed in accordance with: ASTM F2178-12

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ArcWear# 1608F01

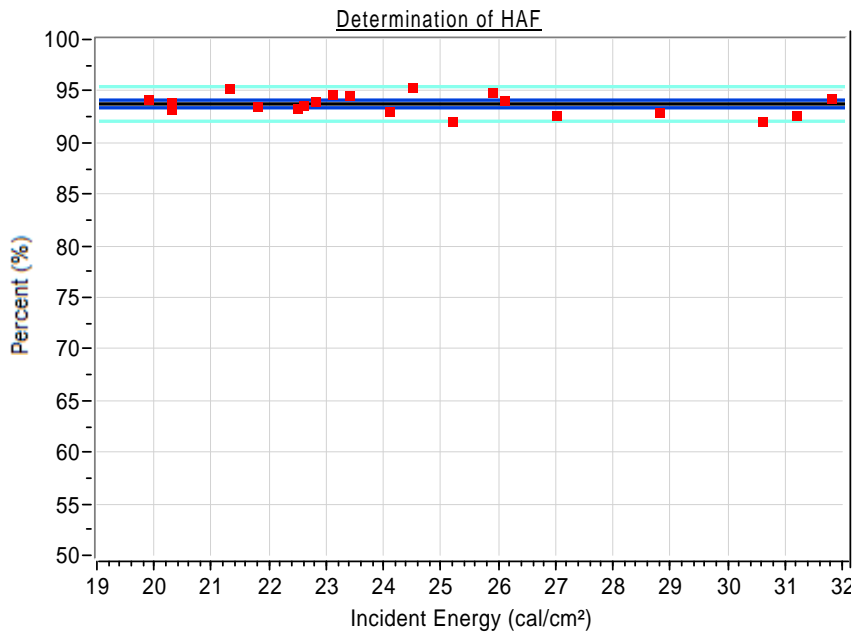


ATPV = 26 cal/cm²

Probability	Ei
5%	22.6
10%	23.4
20%	24.3
30%	24.8
40%	25.3
50%	25.7
60%	26.2
70%	26.6
80%	27.2
90%	28.0

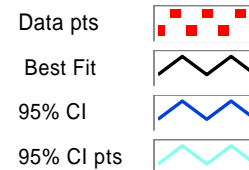
(Note: ATPV is reported to nearest integer for ratings above 10 cal/cm²)

Total points analyzed = 20
Points above Stoll = 7
Points above mix zone = 5
Points below mix zone = 10
Pts within 20% = 15
Pts in mix zone = 5



HAF = 94 %

Confidence Intervals
95% CI = 93.6 , 94.4



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Summary of Measured Energy and Observations



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	Test #	Panel	Test Current A	Cycles of 60Hz	Ei Cal/cm ²	SCD Cal/cm ²	HAF %	>Stoll Y/N	Break Open Y/N	Ablation Y/N	After Flame sec.	Omit Y/N	Comment
1	K-418929-4736	A	8043	25.2	21.3	-0.4	95.3	No	-	-	-	No	
2	K-418929-4736	B	8043	25.2	22.6	-0.1	93.6	No	-	-	-	No	
3	K-418929-4737	A	8018	30.3	23.4	-0.3	94.6	No	-	-	-	No	
4	K-418929-4737	B	8018	30.3	25.2	0.5	92.1	Yes	-	-	-	No	Stoll exceeded on left eye and mouth sensors.
5	K-418929-4738	A	8014	32.3	28.8	0.4	93.0	Yes	-	-	-	No	Stoll exceeded on left eye, right eye and mouth sensors.
6	K-418929-4738	B	8014	32.3	21.8	-0.2	93.5	No	-	-	-	No	
7	K-418929-4739	A	8013	28.3	20.3	-0.3	93.9	No	-	-	-	No	
8	K-418929-4739	B	8013	28.3	20.3	-0.1	93.3	No	-	-	-	No	
9	K-418929-4740	A	8004	34.3	31.8	0.1	94.3	Yes	-	-	-	No	Stoll exceeded on left eye and mouth sensors.
10	K-418929-4740	B	8004	34.3	26.1	-0.1	94.1	No	-	-	-	No	
11	K-418929-4741	A	8017	36.3	31.2	0.6	92.7	Yes	-	-	-	No	Stoll exceeded on all sensors.
12	K-418929-4741	B	8017	36.3	27.0	0.4	92.7	Yes	-	-	-	No	Stoll exceeded on chin sensor.
13	K-418929-4742	A	8014	31.3	25.9	-0.2	94.9	No	-	-	-	No	
14	K-418929-4742	B	8014	31.3	22.5	-0.1	93.4	No	-	-	-	No	
15	K-418929-4743	A	7997	33.3	30.6	0.9	92.1	Yes	-	-	-	No	Stoll exceeded on all sensors.
16	K-418929-4743	B	7997	33.3	22.8	-0.2	94.0	No	-	-	-	No	
17	K-418929-4744	A	8074	29.3	23.1	-0.2	94.7	No	-	-	-	No	
18	K-418929-4744	B	8074	29.3	19.9	-0.4	94.2	No	-	-	-	No	
19	K-418929-4745	A	8062	32.3	24.5	-0.4	95.4	No	-	-	-	No	
20	K-418929-4745	B	8062	32.3	24.1	0.1	93.1	Yes	-	-	-	No	Stoll exceeded on left eye sensor.
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No evidence of melting, dripping or ignition of any of the samples tested.