

TEST REPORT

2026CO4048

DATE OF RECEPTION

Date Format: dd/MM/yyyy 19/06/2026

DATE TESTS

Starting: 19/06/2026

Ending: 25/06/2026

APPLICANT

OEL WORLDWIDE INDUSTRIES
701 COUNTY LINE ROAD/PO BOX 445
US-80133 PALMER LAKE
United States of America

Att. Asa Dyer

IDENTIFICATION AND DESCRIPTION OF SAMPLES

Reference by AITEX	Reference by customer	AITEX sample description
2026CO4048-S01	AFW075SHROUD-BS-GTX	Hood

TESTS CARRIED OUT

- ELECTRIC ARC EXPOSURE TEST: DETERMINATION OF THE ARC RATING FOR EYE OR FACE PROTECTIVE PRODUCTS.

Tests marked with * are not included within the scope of the ENAC accreditation.





DESCRIPTION OF SAMPLES



Reference by AITEX: 2026CO4048-S01

Reference by customer:

AFW075SHROUD-BS-GTX

Information supplied by the customer

2 layers of PYRAD® BY GORE-TEX LABS, CORENTA 3L Laminate

9.2 oz/yd², 313 g/m²

Corenta 3-layer laminate (

Face fabric material: Knitted fabric (circular knit), 100% Polyamide

Functional layer: Membrane based on ePTFE with PYRAD® fabric Technology.

Backing Fabric: Woven fabric (plain weave 1/1), 50% FR Viscose, 48% Aramid, 2% Carbon fibers

Color: Grey



RESULTS

ELECTRIC ARC EXPOSURE TEST: DETERMINATION OF THE ARC RATING FOR EYE OR FACE PROTECTIVE PRODUCTS

Standard

ASTM F2178:2023a - Procedure B

Test results

The test program includes minimum of twenty individual panel arc trials.

The following test data was recorded for each trial:

Arc exposure electrical conditions: arc trial number, RMS arc current, peak arc current, arc voltage, arc duration, energy dissipated in arc, plots of arc current and arc voltage.

Temperature rise response from two monitor sensors for each panel in each trial, plot of average responses from two monitor sensors.

Pictures after arc exposure.

Video.

Essential test data and test results are presented in the following pages as follows:

Arc rating: ATPV or E_{BT50} or both and plots of the burn injury probability (ATPV) or break open probability (E_{BT50}) or both versus Ei.

Test specimen description and order of layer.

Distance from an arc center line to the panel surface.

Subjective evaluation.

Pictures after arc exposure.

Ignition probability value (if determined during testing).

Test conditions	
Date test	25/06/2026 - 25/06/2026
Arc current	(8 ± 1) kA
Stainless steel electrodes, gap of the electrodes	(300 ± 5) mm
Distance between the electrodes and sample	(300 ± 5) mm
Fuse wire	0.5 mm
Number of samples tested	6
Starting and ending conditioning date	24/06/2026 - 25/06/2026
Conditioning	24 h; $21 \pm 2^\circ\text{C}$, $65 \pm 5\%$ HR.

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Reference 2026CO4048-
S01

Observations or deviations from the standard

Description according to information provided by the customer

Lens / Shield description	
Manufacturer	Not supplied.
Model	AFW075SHROUD-BS-GTX.
Colour	Clear
Thickness	0.090 in.
Material	Polycarbonate.

Hardhat Description	
Manufacturer	MSA.
Model	Hard Hat.V-Gard, Class E, type 1.
Material	Not supplied.

Description of fabric including fiber blends and weight of the hood	
2 layers of PYRAD® BY GORE-TEX LABS, CORENTA 3L Laminate 9.2 oz/yd ² , 313 g/m ² . Corenta 3-layer laminate (Face fabric material: Knitted fabric (circular knit), 100% Polyamide. Functional layer: Membrane based on ePTFE with PYRAD® fabric Technology. Backing Fabric: Woven fabric (plain weave 1/1), 50% FR Viscose, 48% Aramid, 2% Carbon fibers. Color: Grey.	
Arc rating test report number	K-580568-2112P14-R00.
Laboratory for textile component	KINECTRICS.
Fabric system arc rating	ATPV 75 cal/cm ²

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Summary of measured energy and subjective evaluation:

Test	Time (ms)	Cycles 50Hz	Ei cal/cm ²	SCD cal/cm ²	HAF %	Burn	Break Open
1-A	1583,6	79,18	87,8	-0,82	98,8	N	N
1-C	1583,6	79,18	80,8	-0,85	98,8	N	N
2-A	1583,8	79,19	84,9	-0,84	98,8	N	N
2-C	1583,8	79,19	91,2	-0,67	98,6	N	N
3-A	1583,8	79,19	86,1	-0,78	98,6	N	N
3-C	1583,8	79,19	76,7	-0,68	98,2	N	N

Summary of measured energy and subjective evaluation:

Test	After flame	Ablation	Melting	Dripping	Charring	Embrittlement	Deformation
1-A	3,8	Y	N	N	Y	Y	N
1-C	3,8	Y	N	N	Y	Y	N
2-A	5,8	Y	N	N	Y	Y	N
2-C	6,3	Y	N	N	Y	Y	N
3-A	4,3	Y	N	N	Y	Y	N
3-C	10,1	Y	N	N	Y	Y	N

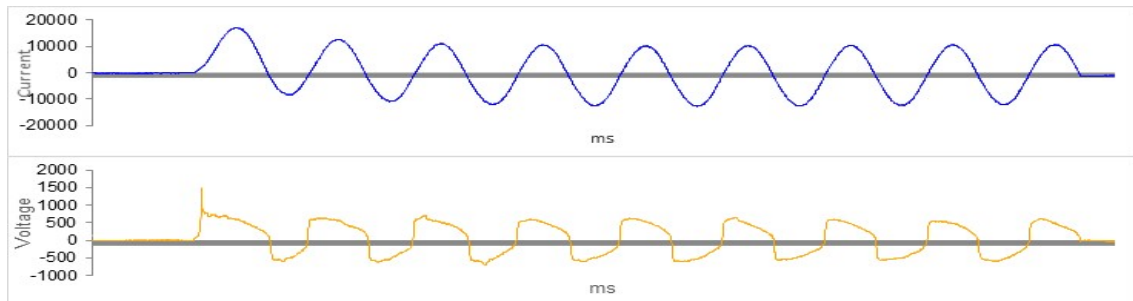
Y: Yes N: No >>>



Electrical current and response sensor response:

Calibration shot

INITIAL CALIBRATION



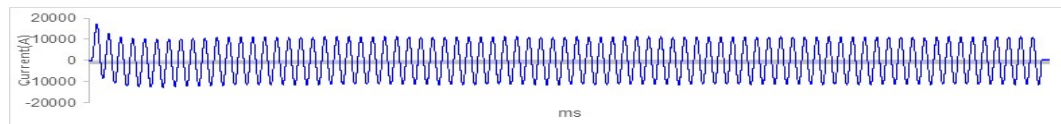
Ei Panel A	7,9 cal/cm ²	Ei Panel B	cal/cm ²	Ei Panel C	7,2 cal/cm ²
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Shot 1

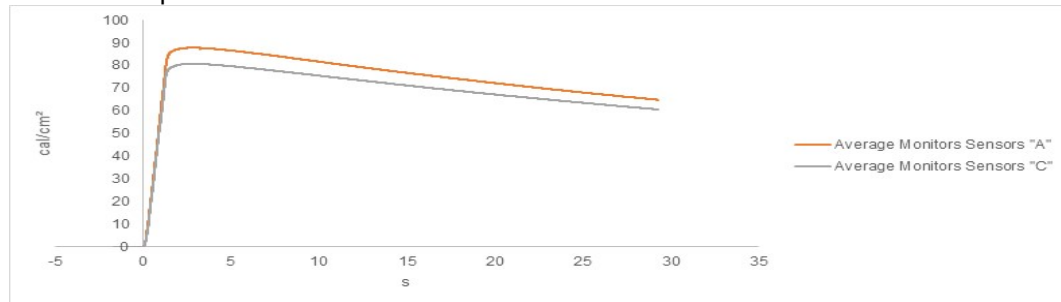
Current plot



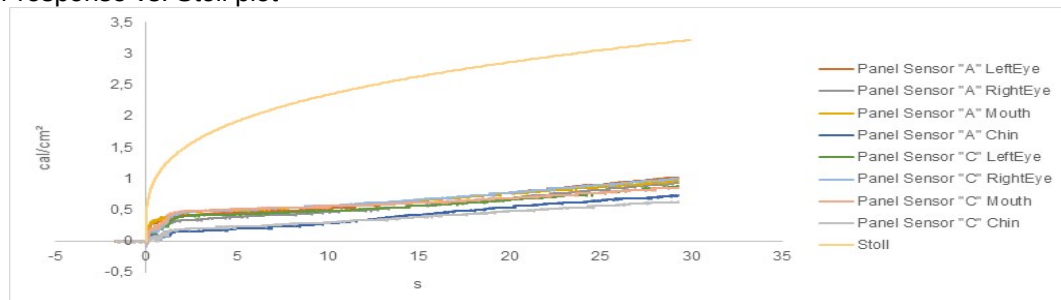
Voltage plot



Reference sensors mean plot



Panel sensor response vs. Stoll plot



Current Total RMS (kA)	7,9	Current Peak (kA)	17,1	Arc Voltage Peak(V)	1491,0
Duration (cycles nº)	79,2	Duration (ms)	1583,6	Arc Energy (kJ)	5448,0
Arc Voltage (V)	474,1				

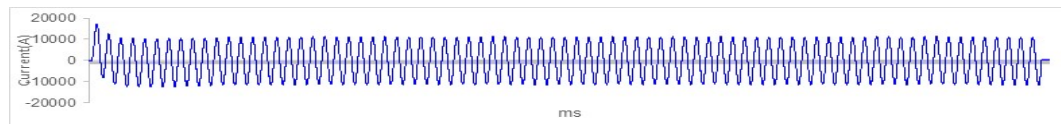
sensor response	PANEL A	PANEL C
Ei	87,83 cal/cm²	80,77 cal/cm²
SCD	-0,82 cal/cm²	-0,85 cal/cm²

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Shot 2

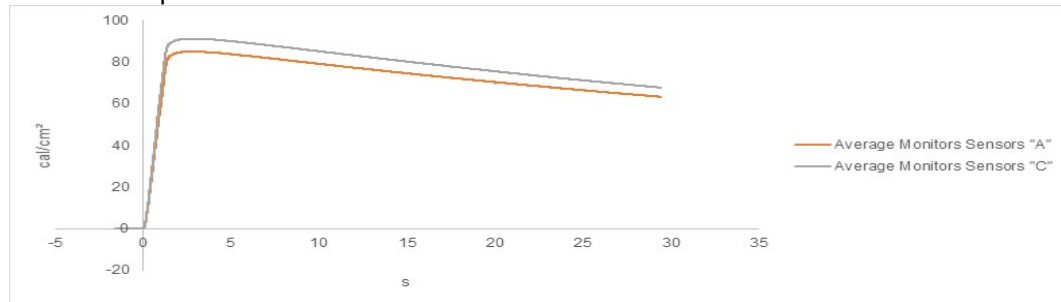
Current plot



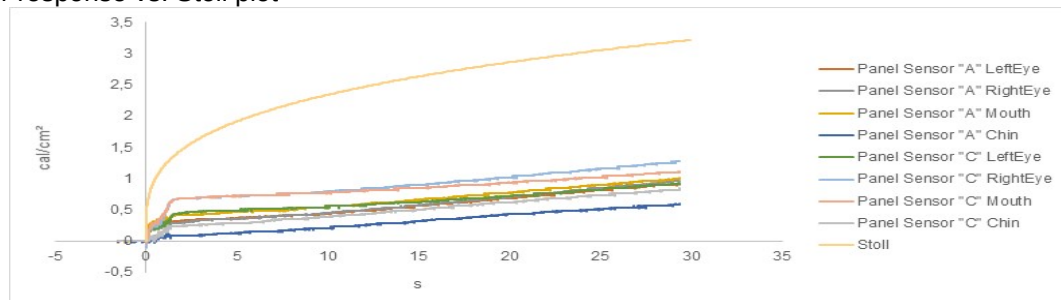
Voltage plot



Reference sensors mean plot



Panel sensor response vs. Stoll plot



Current Total RMS (kA)	7,9	Current Peak (kA)	17,3	Arc Voltage Peak(V)	1491,0
Duration (cycles nº)	79,2	Duration (ms)	1583,8	Arc Energy (kJ)	5429,1
Arc Voltage (V)	472,8				

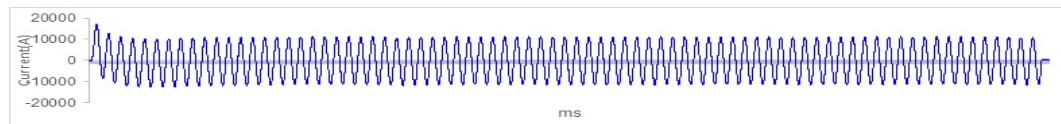
sensor response	PANEL A	PANEL C
Ei	84,94 cal/cm²	91,15 cal/cm²
SCD	-0,84 cal/cm²	-0,67 cal/cm²

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Shot 3

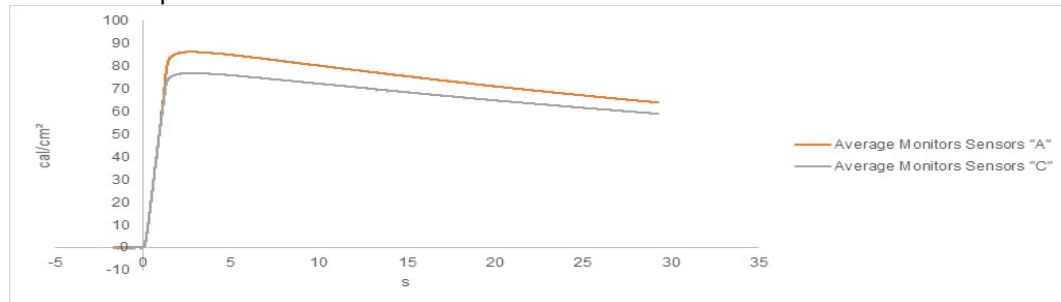
Current plot



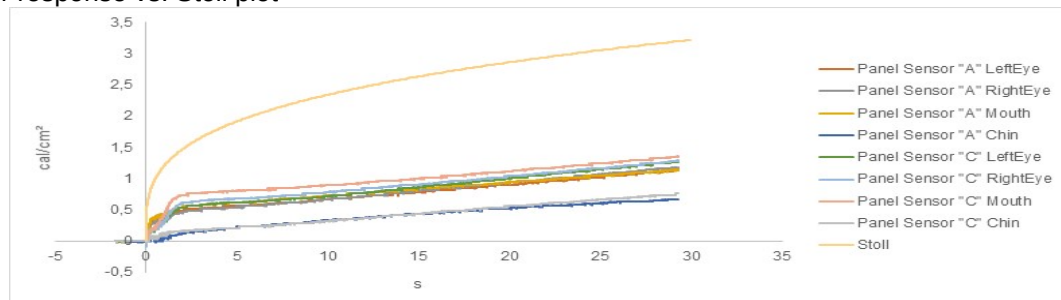
Voltage plot



Reference sensors mean plot



Panel sensor response vs. Stoll plot



Current Total RMS (kA)	7,9	Current Peak (kA)	17,1	Arc Voltage Peak(V)	1518,0
Duration (cycles n°)	79,2	Duration (ms)	1583,7	Arc Energy (kJ)	5504,9
Arc Voltage (V)	478,2				

sensor response	PANEL A	PANEL C
Ei	86,06 cal/cm ²	76,67 cal/cm ²
SCD	-0,78 cal/cm ²	-0,68 cal/cm ²

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**Tested material pictures:****Original****Shot 1****Shot 2****Shot 3****Summary of results:**

The arc rating of the textile component has been previously tested according to the standard ASTM F2178:2023a on the test report nº K-580568-2112P14-R00 with an arc rating ATPV/EBT of 75 cal/cm².

ACCORDING TO THE STANDARD ASTM F2178:2023a - PROCEDURE B

ARC RATING

ATPV = 75 cal/cm²

Testing was performed as a verification, which may be used when the iterative test procedure to determine the Arc Rating of the final system is not required. This procedure may only be used on shields with balaclava or hood systems and only when the Arc Rating of the fabric system has been previously established by Test Method F1959/F1959M.

Note

The test was carried out at: AITEX - Polígono Industrial Fuente del Jarro. C/ Ciudad de Gibraltar, 5; 46988 – Paterna (Valencia).

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Begoña Picó
Head of Public Tenders Division



Date: 03/07/2026 13:14:45

Digitally Signed by: RAQUEL SALES PERICAS -

NIF: 21667783N

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