Declaration of Conformity

In Accordance with ANSI/ISEA 125-2014 and ANSI/ASSP Z359.7-2019

FALLTECH®

Alexander Andrew, Inc. 1306 S. Alameda St Compton, CA 90221 (800) 719-4619

Declaration #	B1213172	**Declaration Date**	12/13/2021

Tested Item # **8366LAF** **18" Arc Flash Dorsal D-Ring Extender; Coated D**

Additional Items Conforming Under this Declaration:

Alexander Andrew, Inc. declares that the product(s) listed above is in conformity with the requirements of the following product standard(s):

ANSI Z359.11-2014 & ASTM F887-20

Conformity Assessment Method in accordance with ANSI/ISEA 125-2014

Level 1		**Level 2**	X	**Level 3**	

Level 1: FallTech Lab Outside the Scope of ISO/IEC Standard 17025:2005	**Level 2**: FallTech Lab Within the Scope of ISO/IEC Standard 17025:2005	**Level 3**: Independent 3rd Party Lab accredited to ISO/IEC Standard 17025:2005

Supporting Documentation **PC-2287** **K-580568-2106H01-A-R00**

Authorized Signature

Name Zachary Winters **Title** Engineering Manager **Date** 12/13/2021

ACCREDITED

International Accreditation Service, Inc
3060 Saturn St, Ste 100
Brea, CA 92821 +1 562-364-8201

FallTech Lab - TL-594
ISO/IEC 17025:2017
Alexander Andrew Inc dba FallTech

FallTech Testing Laboratory
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FallTech Test Report

Test Report No.	PC-2287	**Rpt. Date**	6/24/2021	**Rpt. Rev**		**Rev Date**	
Report Prepared For	FallTech						
Initiated By	Dan Redden	**Test Specification(s)**		ANSI Z359.11-2021: 3.1.5			
Part No.	8366LAF			**Part No. Revision**	D		
Part Description	18" Arc Flash Dorsal D-Ring Extender: Coated D						
Test Request No.	PC-2287			**Date Complete**	6/23/2021		
Test Operator(s)	Yesbet Sierra / Jay Sponholz						

Material/Sample Identification

Sample ID	Description
SST1	18" Arc Flash Dorsal D-Ring Extender: Coated D
SST2	18" Arc Flash Dorsal D-Ring Extender: Coated D
SST3	18" Arc Flash Dorsal D-Ring Extender: Coated D

Test Summary

Test Specification	Test Criteria		Test Result	Pass/Fail
ANSI Z359.11-2021 3.1.5.1	Static Strength	≥ 5000 Lbf	5042.9 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.11-2021 3.1.5.1	Static Strength	≥ 5000 Lbf	5063.1 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.11-2021 3.1.5.1	Static Strength	≥ 5000 Lbf	5044.0 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass

Conclusion

Based upon the samples provided to the Lab:
FallTech P/N 8366LAF Rev. D meets the requirements of ANSI Z359.11-2021 and ASTM F-887-18

Report Signatories and Approval

Lab Quality Manager	Jay Sponholz	Date	6/24/2021
Witnessed by	Not Required	Date	N/A

ACCREDITED
Certificate# TL-594 Testing

This laboratory is accredited with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to the joint ISO-ILAC Communique dated January 2009).
FallTech Testing Laboratory allows for a +/- 5% tolerance on dynamic and static strength test results.

ArcWear
A KINECTRICS COMPANY

KINECTRICS

TESTING - EXPOSURE TO AN ELECTRIC ARC

Test Specimen:
D-Ring Extender, Style 8366LAF
Webbing: Kevlar, Black

Requested by:
FallTech
1306 S Alameda St
Compton, CA 90221

Test Standard:
ELECTRIC ARC TESTS: ASTM F887-20
OBSERVATION OF PERSONAL CLIMBING EQUIPMENT EXPOSED TO AN ELECTRIC ARC

Test Report:
K-580568-2106H01-A-R00

Sample Received	Test Date	Report Date
June 16, 2021	June 18, 2021	June 24, 2021

Prepared by

Robert Ferraz
Technologist, HCL
TD Technologies, Kinectrics

Approved by

Claude Maurice
Technical Specialist, HCL
TD Technologies, Kinectrics

For questions about this test report, please contact testing@arcwear.com

Revision History

Rev	Description		
00	Initial report creation		
	Issue Date June 24, 2021	Prepared by Robert Ferraz	Approved by Claude Maurice
Rev	Description		
	Issue Date	Prepared by	Verified by

DISCLAIMER

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QUALITY MANAGEMENT

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

- The test performed does not apply to electrical contact or electrical shock hazard.
- The test result is applicable only to the Test Specimens delivered to Kinectrics, other material, design or color may have a different response.
- It is the clients' responsibility to provide full and accurate information about the items supplied.
- No test is done to validate the fiber content or composition of the test item.
- Photographs of the test specimens and waveforms of the arc current, voltage and calorimeters with the circuit and arc exposure calibration records are available from Kinectrics and provided to the client separately from this report.

1 Test Standard:

Electrical arc test according to ASTM F887-20, Section 22
Standard Specifications for Personal Climbing Equipment, After Exposure to an Electric Arc Evaluation. Specimens are mounted on mannequins of panels having a distance of 30.5 cm (12 inches) from the centerline of the electrodes. The test standard requires that the finished personal climbing equipment be exposed to a level of 40 cal/cm² ± 5 cal/cm².

1.1 Test Requirements

Harnesses- The test program requires the specimens be placed on mannequins as normally worn. A minimum of eight samples are tested, four samples with the front facing the arc and four samples with the back side toward the arc.

Harness accessories, loops etc. - Three specimens of each accessory or loop are required to be exposed to the arc.

Energy Absorbing Lanyard - Three specimens of each lanyard are required to be exposed to the arc.

Other effects than the thermal effects of an electric arc like noise, light emissions, pressure rise, hot oil, electric shock, the consequences of physical and mental shock or toxic influences are not covered by this standard.

1.2 Acceptance criteria for products exposed to electrical arc:

The procedure outlined in ASTM F887-20 is followed to verify the electric arc performance of the personal climbing equipment. The product is considered as having passed the visual inspection criteria if the parameters defined in Table 1-1 are met. As proof of performance following the arc exposure, the exposed test specimens shall be subjected to a drop test. This shall be done as soon as practically possible. The samples have been returned to the client as directed to perform the drop test.

Table 1-1: Visual inspection Criteria for Electric Arc Performance of ASTM F887-20

Parameter	Criterion
Arc Energy	Electrical arc exposure of 40 cal/cm² ± 5 cal/cm²
Ignition	No electric arc ignition.
After-flame Time	Less than 5 seconds on load bearing materials and less than 15 seconds for accessories or non-load bearing components.
Melting/Dripping	No melting and dripping of molten materials to the floor of any load bearing material. Accessories are allowed to exhibit melting and dripping provided they are not ignited while dripping.

2 Test Condition:

The following test circuit parameters and conditions were used.

- Electric arc current: 8 kA rms ± 10%, 60 Hz
- Open circuit voltage: 2500 V rms ± 10%, 60 Hz
- Nominal Heat Flux Density: 2100 kW/m^2 (50 cal/cm^2·s)
- Arc duration: 0.85 seconds ± 0.1 s to obtain required incident energy
- Electrode gap: 305 mm (12 inches)
- Distance from mannequin to electrode: 305 mm (12 inches)
- Deviations and abnormalities: None

Note: The measurement uncertainty, MU, for the measured values of this test method are well within the requirements of the test standard and are defined on a 95% confidence interval basis over the full test range, as follows:

- Temperature: ± 2 °C Incident Energy: ± 1.5%
- Arc Current: ± 2.5% Voltage: ± 2.2%
- Time zero reference: ± 3 ms

3 Test Specimen:

The following description of the test sample was provided by the client and confirmed by the sample shown in Figure 3.1.

Sample description:	FallTech, D-Ring Extender
Sample identification:	Style 8366LAF
Manufacturer:	FallTech
Material:	Black, Kevlar
Number of samples tested:	4
Notes:	N/A

Figure 3.1: Sample as Received

4 Test Results:

Arc exposures were performed on four samples as indicated. If the conditions and evaluation of the samples meet the criteria in Table 1-1, the product has passed the electrical arc exposure and is candidate for the mechanical drop test to fully meet the arc performance requirements of ASTM F887-20. Photographs of the samples before and after the arc exposure are shown in Section 6.

Table 4-1: Summary of Test Results

Trial # 21-3271		
Mannequin	**A – 2 Samples**	**B – 2 Samples**
Item Serial #	N/A	N/A
Incident Energy	40 Cal/cm²	42 Cal/cm²
After-flame	0	0
Ignition	N	N
Melting and Dripping	N	N
Acceptance Criteria	Meets	Meets

4.1 Observations:

Moderate charring was observed on all samples tested. There was no evidence of afterflame, ignition, melting or dripping on any of the samples tested.

5 Interpretation of Results:

This testing does not assign an arc rating to this product. The purpose of this test was to observe the response characteristics of this product when exposed to an open-air electric arc

Based on the test results in Table 4-1 and observations, the product tested meets the requirements criteria of Table 1-1 as per ASTM F887-20 sections 22.1-22.4 and 22.6.1-22.6.2.

The samples provided were tested as harness accessories since they are not part of a finished product. Verification of the final harness product is required for verification of performance and includes a mechanical integrity (vertical drop test) following the arc exposure.