

Declaration of Conformity

In Accordance with ANSI/ISEA 125-2014



Alexander Andrew, Inc. 1306 S. Alameda St Compton, CA 90221

Declaration #

C0616039

Declaration Date

6.17.16

Tested Item #

8242AF

6' Arc Flash Shock Absorbing Lanyard

Additional Items Conforming Under this Declaration:

82423AF

8242L

82423L

82424L

8242

8243

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

ANSI Z359.13-2013 and ASTM F887-13

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

Level 1

Level 2

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-0928

K-418926-1606H01-R00

Authorized Signature

Name

Dustin Hawkins

Title

VP Business Development

Date

10.27.16

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Testing. Advising. Assuring.

August 15, 2016

FallTech Testing Laboratory
1306 S. Alameda Street
Compton, CA 90221

Attention: Jay Sponholz
Quality Manager

Subject: **Attestation of Witnessing Testing**
Exova OCM Job # 361179-4
FallTech P.O.: OPEN
Report No.: PC-0928
Base Part No. 8242AF
Description: Energy Absorbing Lanyard

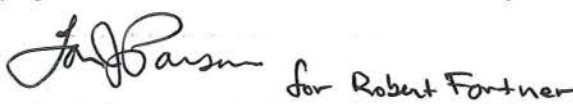

Dear Mr. Sponholz:

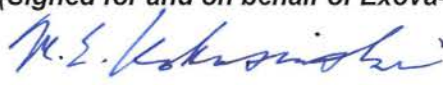

The purpose of this attestation is to attest to the fact that a representative of Exova OCM was on site at FallTech's facilities to confirm suitability of the equipment used, calibration status of the equipment and to witness testing performed by FallTech employees. Details of this visit are included below:

- Date of Testing:
 - July 7, 2016
- Exova OCM Test Witness:
 - Robert Fortner
- FallTech Test Operators:
 - Yesbet Sierra and Jay Sponholz
- Specification:
 - ANSI Z359.13-2013 Sections 4.5, 4.6, 4.13.1, 4.13.2, 4.13.3
- Equipment Calibration Interval
 - 1 year, except weights which are 5 years

Attached to this attestation is the test report generated by FallTech Testing Laboratory. Exova OCM test witness certifies the report accurately presents the testing performed on the samples identified.

Test Report #	Date	Base Part #	Description	Sample ID's	Results
PC-0928	7/11/2016	8242AF	Energy Absorbing Lanyard	A2 A3 A4 A2 A3 A4 W1 W2 W3 C1 C2 C3 H1 H2 H3	Pass

Test Witness Signature: Robert Fortner Technician Mechanical Laboratory	(Signed for and on behalf of Exova-OCM)  
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Approval Signature: Mark E. Kokosinski General Manager	(Signed for and on behalf of Exova-OCM)  
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This attestation shall not be reproduced except in full, without the written approval of Exova-OCM. The laboratory has witnessed the testing the material / items supplied by the client as sampled by the client. The testing is not within Exova OCM's L.A.B scope of testing and was not performed at Exova OCM.



FallTech Test Report

Test Report Number	PC-0928	Date	7/11/2016	Rev		Rev Date	
Report Prepared For	FallTech						
Initiated By	Dan Redden	Test Specification	ANSI Z359.13-2013 4.5, 4.6, 4.13.1, 4.13.2, 4.13.3				
Base Part #	8242AF	Description	Energy Absorbing Lanyard				
Proposed Part #	N/A	Built By Whom	Production	BOM	No		
Test Request #	PC-0928	Date Received	7/5/2016	Date Complete	7/7/2016		
Test Operator	Jay Sponholz	Test Operator	Yesbet Sierra				

Material/Sample Identification

Sample ID	Description
A2	Energy Absorbing Lanyard
A3	Energy Absorbing Lanyard
A4	Energy Absorbing Lanyard
A2	Energy Absorbing Lanyard
A3	Energy Absorbing Lanyard
A4	Energy Absorbing Lanyard
W1	Energy Absorbing Lanyard
W2	Energy Absorbing Lanyard
W3	Energy Absorbing Lanyard
C1	Energy Absorbing Lanyard
C2	Energy Absorbing Lanyard
C3	Energy Absorbing Lanyard
H1	Energy Absorbing Lanyard
H2	Energy Absorbing Lanyard
H3	Energy Absorbing Lanyard



FallTech Test Report

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Base Part #	8242AF	Description	Energy Absorbing Lanyard				
Proposed Part #	N/A	Built By Whom	Production	BOM	No		
Test Request #	PC-0928	Date Received	7/5/2016	Date Complete	7/7/2016		

Test Summary

Test Specification	Test Criteria		Test Result	Pass/Fail
ANSI Z359.13-2013 4.5	Arrest Distance	≤ 48"	39.0"	Pass
	Max Arrest Force	≤ 1800 Lbf	1023.2 Lbf	Pass
	Avg Arrest Force	≤ 900 Lbf	810.2 Lbf	Pass
ANSI Z359.13-2013 4.5	Arrest Distance	≤ 48"	39.6"	Pass
	Max Arrest Force	≤ 1800 Lbf	1031.4 Lbf	Pass
	Avg Arrest Force	≤ 900 Lbf	796.1 Lbf	Pass
ANSI Z359.13-2013 4.5	Arrest Distance	≤ 48"	40.2"	Pass
	Max Arrest Force	≤ 1800 Lbf	1102.7 Lbf	Pass
	Avg Arrest Force	≤ 900 Lbf	808.2 Lbf	Pass
ANSI Z359.13-2013 4.6	Static Strength	≥ 5000 Lbf	5040.1 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.6	Static Strength	≥ 5000 Lbf	5255.2 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.6	Static Strength	≥ 5000 Lbf	5050.2 Lbf	Pass
	Hold	≥ 1 Minute	1 Minute	Pass
ANSI Z359.13-2013 4.13.1	Arrest Distance	≤ 48"	39.4"	Pass
	Max Arrest Force	≤ 1800 Lbf	978.7 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	786.2 Lbf	Pass
ANSI Z359.13-2013 4.13.1	Arrest Distance	≤ 48"	41.2"	Pass
	Max Arrest Force	≤ 1800 Lbf	1013.1 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	787.8 Lbf	Pass
ANSI Z359.13-2013 4.13.1	Arrest Distance	≤ 48"	40.6"	Pass
	Max Arrest Force	≤ 1800 Lbf	978.5 Lbf	Pass
	Avg Arrest Force	≤ 1125 Lbf	789.2 Lbf	Pass





FallTech Test Report

Test Report Number	PC-0928	Date	7/11/2016	Rev		Rev Date	
Report Prepared For	FallTech						
Initiated By	Dan Redden	Test Specification	ANSI Z359.13-2013 4.5, 4.6, 4.13.1, 4.13.2, 4.13.3				
Base Part #	8242AF	Description	Energy Absorbing Lanyard				
Proposed Part #	N/A	Built By Whom	Production	BOM	No		
Test Request #	PC-0928	Date Received	7/5/2016	Date Complete	7/7/2016		
ANSI Z359.13-2013 4.13.2	Arrest Distance	≤ 48"	33.8"	Pass			
	Max Arrest Force	≤ 1800 Lbf	1095.2 Lbf	Pass			
	Avg Arrest Force	≤ 1125 Lbf	917.8 Lbf	Pass			
ANSI Z359.13-2013 4.13.2	Arrest Distance	≤ 48"	34.2"	Pass			
	Max Arrest Force	≤ 1800 Lbf	1272.3 Lbf	Pass			
	Avg Arrest Force	≤ 1125 Lbf	938.4 Lbf	Pass			
ANSI Z359.13-2013 4.13.2	Arrest Distance	≤ 48"	34.0"	Pass			
	Max Arrest Force	≤ 1800 Lbf	1314.9 Lbf	Pass			
	Avg Arrest Force	≤ 1125 Lbf	937.2 Lbf	Pass			
ANSI Z359.13-2013 4.13.3	Arrest Distance	≤ 48"	42.4"	Pass			
	Max Arrest Force	≤ 1800 Lbf	1236.4 Lbf	Pass			
	Avg Arrest Force	≤ 1125 Lbf	814.9 Lbf	Pass			
ANSI Z359.13-2013 4.13.3	Arrest Distance	≤ 48"	45.6"	Pass			
	Max Arrest Force	≤ 1800 Lbf	1081.6 Lbf	Pass			
	Avg Arrest Force	≤ 1125 Lbf	784.1 Lbf	Pass			
ANSI Z359.13-2013 4.13.3	Arrest Distance	≤ 48"	44.0"	Pass			
	Max Arrest Force	≤ 1800 Lbf	1064.9 Lbf	Pass			
	Avg Arrest Force	≤ 1125 Lbf	789.8 Lbf	Pass			

Conclusion

FallTech P/N 8242AF meets the requirements of ANSI Z359.13-2013 and ASTM F-887-13

Report Signatories and Approval

Lab Quality Manager		Date	7/11/2016
Witnessed by		Date	8/15/16



Test Performed for
ArcWear.com
Louisville, KY 40223
www.ArcWear.com

Personal Climbing Equipment provided by
FallTech
1306 S Alameda St
Compton, CA 90221
800-719-4619

Model 8242, 6' Energy Absorbing Lanyard

ASTM F887-13 Standard Specifications for Personal Climbing Equipment
Section 22, Electric Arc Performance Evaluation

Kinectrics Inc. Report No.: K-418926-1606H01-R00

Item received: June 17, 2016

Test Date: June 17, 2016

Client representative: Hugh Hoagland
ArcWear

Digitally signed by Hugh
Hoagland
Date: 2016.06.27 14:01:50 -04'00'

Prepared by: Andrew Haines
Technologist
Kinectrics Inc

Date: 2016.06.28
08:12:36 -04'00'

Approved by: Stephen Cress, P. Eng
Department Manager, DAM
Transmission and Distribution Technologies
Kinectrics Inc

Stephen Cress
2016.06.29 18:28:10
-04'00'

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Note about this report

- The test performed does not apply to electrical contact or electrical shock hazard
- The test result is applicable only to the Test Item, other material or color may have a different response.
- The findings of this report are based on the current test method as described in the Reference Standard
- It is assumed that the information supplied by the client was valid and complete

Kinectrics Inc., 800 Kipling Avenue, Toronto, Ontario, Canada, M8Z 5G5
Tel: 416-207-6305, FAX: 416-207-5717
www.kinectrics.com

Electric Arc Exposure Test Report

Test Description

Harnesses- The test program requires the specimens be placed on mannequins as normally worn. A minimum of six samples are tested, three samples with the front facing the arc and three samples with the back side toward the arc. The mannequin is positioned as to have the arc centered on the chest for front facing exposure and centered on the fall arrest attachment for the back facing exposure.

Harness accessories, loops etc. - Three specimens of each accessory or loop are required to be exposed to the arc. These may be attached webbing or other suitable means to allow the item to be held against the mannequin or panel at a distance of 30.5 cm (12 inches).

Shock Absorbing Lanyard - Three specimens of each lanyard are required to be exposed to the arc. These are placed over the shoulder and held against the mannequin or panel at a distance of 30.5 cm (12 inches). Several lanyards may be tested at one time on the same mannequin.

Test Requirements

The test standard requires that the finished personal climbing equipment be exposed to a level of 40 ± 5 cal/cm². In the case where the arc exposure is out of range of the standard, extra samples may be performed if available. There shall be no ignition of any component, no greater than 5 seconds afterflame and no melting and dripping of any materials.

As proof of performance following the arc exposure, the exposed test specimens shall be subjected to a drop test per ANSI Z359.1 or Z349.13 as applicable. This shall be done as soon as practically possible. ArcWear has arranged to have the test items returned to the client or other laboratory to perform the drop test.

Results and Observations

The following test data was recorded for each trial:

- Arc exposure electrical conditions: arc trial number, RMS arc current, arc voltage, arc duration, energy dissipated in arc, plots of arc current and arc voltage
- Average incident energy from monitors.
- Photographs of exposed samples before and after exposure
- Video recording during and immediately after the exposure to record after-flame
- Examination of the samples after the test for evidence of ignition, melting and dripping or any other material problems.

The essential test data and test results with a representative photograph of the samples are presented in the following pages. The observations are performed by a qualified observer that has knowledge of behavior of materials in an arc exposure and in depth knowledge of arc testing specifications and requirements.

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 recognized throughout the world.

Sample description: 6' Energy Absorbing Lanyard
Sample identification: Model 8242
Manufacturer: FallTech
Material of webbing: Kevlar

Trial # 16-3193		
Mannequin	A	B
Item Serial #	Quantity - 2	Quantity - 1
E _i , cal/cm ²	42.3	35.4
Afterflame	1, Absorber Cover Fabric	0
Ignition	N	N
Melting and dripping	N	N
Comment	Evidence of ablation of energy absorber cover fabric, but no concerns with material response.	Evidence of ablation of energy absorber cover fabric, but no concerns with material response.

Conclusions

The Model 8242 6' Energy Absorbing Lanyard has met the no melting, no dripping, no ignition criteria of ASTM F887-13 section 22.8. In order to satisfy the Electric Arc Performance requirements in accordance with section 22 of the standard, the test specimens must pass the specified drop test following arc exposure.