

### **Declaration of Conformity**

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

**Declaration #:** DOC-UFL201601 **Declaration Date:** 09/18/2020

Item #: UFL201601 Additional Items Conforming

Page intigent (Strong 6 ft Loading Edge (LE) Reted Clear Reak Design shock shoothing sected Under this Declaration (If Applicable):

Description: KStrong® 6 ft. Leading Edge (LE) Rated Clear Pack Design shock absorbing coated

wire lanyard with snap hooks (ANSI)

**Brand Name:** KStrong **Manufacturer:** KStrong

Address: 150 N. Radnor Chester Road, Suite F200, Radnor, PA 19087

KStrong declares that the product(s) listed above is in conformity with the requirements of the following performance standard(s):

#### ANSI Z359.14-2014

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



Level 1:

KStrong Lab Outside the Scope of ISO/IEC Standard 17025:2017



Level 2:

KStrong Lab Within the Scope of ISO/IEC Standard 17025:2017



Level 3:

Independent 3rd Party Lab accredited to ISO/IEC Standard 17025:2017

Supporting Documentation: KS-Test-UFL201601.pdf

This Certificate is a guarantee that the above standard(s) was met by the requirements of such standard. Testing was performed under normal operation mode. The results of testing apply only to the particular sample tested and the specific test carried out. This Certificate is only issued for products which have passed the testing requirements of listed standard(s).

**Authorized Signature:** 

John H. Kemp Jr. President - KStrong

ISO 17025 Accredited Test Laboratory

intertek Total Quality. Assured.



Intertek Testing Services NA, Inc. 3933 US Rt. 11 Cortland, NY 13045

Tel: 1 607-753-6711 www.intertek.com

**Accrediting Agency** 





A2LA 5202 Presidents Court, Ste 220 Frederick, MD 21703 Tel: 301.644.3248 info@A2LA.org



# K Strong Inc TEST REPORT

#### **SCOPE OF WORKs**

ANSI/ASSP Z359.14-2014 – **ENERGY ABSORBING LANYARD** TESTED FOR LEADING EDGE CAPABILITY (COLD RE-TEST ONLY)

#### **REPORT NUMBER**

104400142CRT-005 104361982CRT-001 Original Report

#### **ISSUE DATE**

9/18/2020

#### **PAGES**

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#### **DOCUMENT CONTROL NUMBER**

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#### TEST REPORT FOR K STRONG INC

Report No.: 104400142CRT-005 Date: September 18<sup>th</sup>, 2020 Address 3933 US rt. 11 Cortland, NY 13045

Telephone: 607-758-6246 www.intertek.com

K Strong Inc. 150 N. Radnor Chester Rd. Suite F200 Radnor, PA 19087 USA

Report Number...... 104400142CRT-005

Signed Quote Number...... Qu-01088830

PO Number:..... None

Name of Testing Laboratory

**Test Specification:** Cold Retest Only

Standard...... ANSI/ASSP Z359.14-2014

**Date(s) of Testing.....** 6/9/2020

**Product Description:** Energy Absorbing Wire Lanyard

Product Type: ..... Energy Absorbing Lanyard

Brand Name: ...... Sharpon by Karam

Model Number(s): ...... UFL201601, UFL201622

Additional Models Covered:..... NA

Date(s) Samples Received ...... 5/28/20

#### **SECTION 1**

#### **SUMMARY OF TESTING**

TESTS COMPLETED	ANSI/ASSP Z359.14-2014 CLAUSE	STATUS
Dynamic Performance (LE) (cold)	3.1.9 & 4.2.8.2	PASS

Report No.: 104400142CRT-005

#### **SECTION 2**

This test report concludes the work anticipated in the testing phase of your project. If there are any questions regarding this report please contact the undersigned at 607-753-6711.



Please see attached test data for details.

#### **SECTION 3**

#### **TESTING EQUIPMENT CALIBRATION INFORMATION**

USED FOR TEST	DESCRIPTION	MANUFACTURER	CONTROL NO.	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE
X	Test Weight	NA	NA	282 lbs	-	VBU	VBU
X	Test Weight	NA	NA	300 Lbs	-	VBU	VBU
X	Load Cell	Interface	L099	-	-	9/26/19	9/26/20
Х	Leading Edge Bar	NA	NA	CAT 3	-	Single Use VBU	
X	Tape Measure	Stanley	N1407	25'	-	9/26/19	9/26/20

#### TEST REPORT FOR K STRONG INC.

Date: September 18<sup>th</sup>, 2020

#### **SECTION 4**

#### **SUPPLEMENTAL TEST DATA**

SECTION (TEST)	REQUIREMENT		RESUL	TS	COMPLIANCE				
	1. Connect 282 lb. weight 2. Drop test weight from a level 5 feet +/- 3. Allow weight to swing unrestrained for 4. Record the maximum and average arres 5. Line must retain 1,000 lb. static load aft	a period of no sting forces	ot less than 10	) seconds					
	SRL LINE ORIENTATION: PERPENDICULAR	SAMPLE: 19	SAMPLE: 20	SAMPLE: 21					
	Conditioning in: (2 hrs min)	7:00am	7:00am	7:00am					
	Conditioning out: (2 hrs min)	9:20am	9:25am	9:30am					
	Lock function shall operate per 3.1.2	NA	NA	NA					
	Visual indicator shall activate	YES	YES	YES					
	Max. Arrest Force: (lbs.) Class A & B < 1,800 lbs.	1593	1505	1536					
3.1.9	Avg Arrest Force (lbs.): Class A < 1,575 lbs. Class B < 1,125 lbs.	1085	1113	1146	2000				
(4.2.8.2)	Arrest Distance (in):	74 ½"	73"	72"	PASS				
	Retain a minimum of 1,000 lbs of residual tensile strength following the test	YES	YES	YES					
	Note* Offset Re-tested on 6/9/2020								
	SRL LINE ORIENTATION: 5' OFFSET	SAMPLE: 22	SAMPLE: 23	SAMPLE: 24					
	Conditioning in: (2 hrs min)	7:00am	7:00am	7:00am					
	Conditioning out: (2 hrs min)	9:45am	9:50am	9:55am					
	Lock function shall operate per 3.1.2	NA	NA	NA					
	Visual indicator shall activate	YES	YES	YES					
	Max. Arrest Force: (lbs.) Class A & B < 1,800 lbs.	1373	1477	1551					
	Avg Arrest Force (lbs.): Class A < 1,575 lbs. Class B < 1,125 lbs.	993	997	1083					
	Arrest Distance (in):	70"	63"	65"					
	Retain a minimum of 1,000 lbs of residual tensile strength following the test	YES	YES	YES					

Report No.: 104400142CRT-005

#### **SECTION 5**

#### **REVISION HISTORY**

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
104400142CRT-005	9/18/2020	Report Extension	Theodore Brown	Matthew Stevens



Intertek Testing Services NA Inc. 3933 US Route 11 Cortland, NY 13045

Phone: 607-753-6711 Fax: 607-756-4173

## **Test Verification of Conformity**

On the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the requirements of the referenced specifications at the time the tests were carried out.

Applicant Name & Address : KStrong Inc

150 N. Radnor Chester Rd

Suite F200

Radnor, PA 19087

USA

Product(s) Tested : Energy Absorbing Lanyard (Leading Edge)

UFL201601

Model(s) : UFL201622

Relevant

Standard(s)/Specification(s)

ANSI Z359.14-2014 Edition

**Verification Issuing Office Name :** 

& Address

Intertek Testing Service NA Inc.

3933 US Route 11 Cortland NY 13045

Date of Test(s) : 6/9/20

Verification/Report Number(s) : 104361982CRT-001

NOTE: This verification is part of the full test report(s) and should be read in conjunction with it.

This Verification is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Verification. Only the Client is authorized to copy or distribute this Verification. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this Verification are relevant only to the sample tested. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.





Name: Matthew Stevens

Position: Assoc. Engineer

Date: 8/6/20

MAGA



## KSTRONG LLC TEST REPORT

#### **SCOPE OF WORKs**

ANSI/ASSP Z359.13-2013: Personal Energy Absorbers and Energy Absorbing Lanyards

#### **REPORT NUMBER**

104092990CRT-001

#### **ISSUE DATE**

9/27/19

#### **PAGES**

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#### **DOCUMENT CONTROL NUMBER**

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#### **TEST REPORT FOR KSTRONG**

Report No.: 104092990CRT-001 Date: September 27th 2019

3933 US Route 11 Cortland, New York ,USA 13045

Telephone: 607-758-6246

Ph: 915222434801x371

Facsimile: None www.intertek.com

KSTRONG LLC 17330 Preston Road #200 D Dallas #200 D Dallas, TX 7525

**Report Number.....:** 104092990CRT-001

Signed Quote Number....: Qu-00997010

PO Number...... None

Name of Testing Laboratory

**Test Specification:** 

Standard.....: ANSI/ASSP Z359.13-2013

**Date(s) of Testing.....**: 9/5/19 – 9/13/19

**Product Description:** 

Product Type: ...... Wire Rope Twin Leg EAL

Brand Name: .....: KSTONG LLC Model Number(s): ...... UFL201601 Additional Models Covered: .....: UFL201622

Date(s) Samples Received .....: 8/30/19

Report No.: 104092990CRT-001

Date: September 27<sup>th</sup> 2019

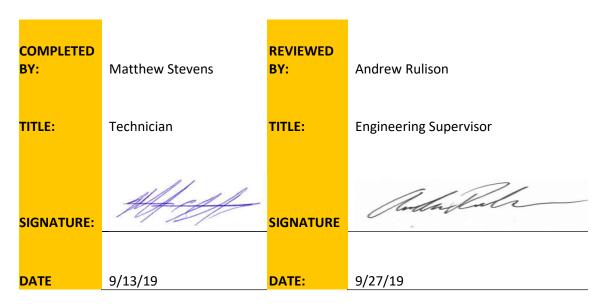
#### **SECTION 1**

#### **SUMMARY OF TESTING**

TESTS COMPLETED	ANSI/ASSP Z359.13-2013 CLAUSE	STATUS
Design	3	PASS
Dynamic Performance – Ambient Wet	4.13.1	PASS
Dynamic Performance – Cold Dry	4.13.2	PASS
Dynamic Performance – Hot Dry	4.13.3	PASS
Static Strength, (Y Lanyards, 3-configurations)	4.7	PASS
Dynamic Performance, (Y-lanyard, single connection)	4.8	PASS
Dynamic Performance, (Y-lanyard, Dual connection)	4.9	PASS
Dynamic Performance, (Y-Lanyard, Hip Connection)	4.10	PASS
Markings and Instructions	5	PASS

#### **SECTION 2**

This test report concludes the work anticipated in the testing phase of your project. If there are any questions regarding this report please contact the undersigned at 607-753-6711.



Please see attached test data for details.

Report No.: 104092990CRT-001

Date: September 27<sup>th</sup> 2019

SECTION (TEST)	REQUIREMI	ENT		RESULTS			
3	Requirements		•			•	
3.2	Energy Absorbing Lanyard (EA	AL) component				PASS	
3.2.1	Material					PASS	
3.2.2	Terminations					PASS	
3.2.2.1	Spliced					PASS	
3.2.2.2	Stitched					PASS	
3.2.2.3	Wire rope					PASS	
3.2.2.4	Terminations (other)					PASS	
3.2.3	EAL Connectors					PASS	
4.2	Activation Force Testing of PI Apply 10 lb load and measure less than 1 minute, examine f then re-measure with 10-lb lo 6 ft FF: 12 ft FF: X Signs of Activation: Length, initial: Length, final: Elongation (Lf-Li):	bearing pt to bearing or activation, release	load, allow sample to	recover un-tension		PASS	

SECTION		REQUIREME	NIT		RESULTS		COMPLIANCE
(TEST)					RESOLIS		CONFLIANCE
3.2.5			ormance Testing of	EAL's, Single Leg			
(4.13.1)	Test within 5-mi			_			
		Requiremen					
		Avg. AF lbs-	f Max. AF lbs-f				
	Ambient Wet						
	6ft FF	< 1,125	< 1,800				
	12 ft FF	< 1,575	< 1,800				
	Max. Deploym			4			
	6ft FF	48- inches					
	12 ft FF	60-inches					
		Condition Sam					
			° F (20° C) for a				
	minimum of 8	nours prior to					
	Test Date:		9/12/19				
	Water Temp:		21.8 C°	4			
	Start Time:		3:30pm 9/11/19				
	Stop Time:		1:30pm 9/12/19				
	A   1 14/57						
	Ambient WET		Camarda, 4	61 2	C1 2		
	6 ft FF:		Sample: 1	Sample: 2	Sample: 3		
	12 ft FF: "Zero" force se	X	VEC	VEC	VEC		
			YES 1	YES 1	YES 1	Min	
	Time: chamber	_	22	22	22	Min	
	Time: in chamb		171 ½	171 ½	171 ½	Hrs/min	
	Elongation, init		220 ½	218 ½	218	Inches Inches	DACC
	Elongation, final:  Total Elongation (Ef-Ei):		49	47	46 1/2		PASS
	AF avg. :	III (EI-EI).	917	886	955	Inches Lbs-f	
	AF max. :		1438	1366	1507	Lbs-f	
	AF IIIdX		1430	1300	1307	LD5-I	

SECTION (TEST)		REQUIREM	ENT		RESULTS		COMPLIANCE
3.2.5 (4.13.2)		namic Perform min. of condition	ance Testing of EAL's	s, Single Leg,			
		Requireme	unts.	7			
	-						
	0.115	Avg. AF lbs	5-T   IVIAX. AF IDS-T	_			
	Cold Dry	1 4 4 2 5	4.000	4			
	6ft FF	< 1,125	< 1,800				
	12 ft FF	< 1,575	< 1,800	4			
		ment Distance					
	6ft FF	48- inches					
	12 ft FF	60-inches					
	-31°+/- 4° F (		mples: a minimum of 8				
	Test Date:		9/13/19	7			
	Temp:		-34.7°				
	Start Time:		3:30pm 9/12	1			
	Stop Time:		1:00pm 9/13				
	1			_			
	COLD DRY						
	6 ft FF:		Sample: 1	Sample: 2	Sample: 3		
	12 ft FF:	Х					
	"Zero" force	sensor:	YES	YES	YES		
	Time: chamb	er to drop:	1	1	1	Min	PASS
	Time: in char	mber	21/30	21/35	21/40	Hrs/min	
	Elongation, i	nitial:	171	171	171	Inches	
	Elongation, f	inal:	217	216	218	Inches	
	Total Elonga		46	45	47	Inches	
	AF avg. :		1095	1062	1127	Lbs-f	
	AF max. :		1642	1740	1633	Lbs-f	

SECTION (TEST)		REQUIREM	ENT		RESULTS		COMPLIANCE
3.2.5 (4.13.3)	HOT DRY: Dyr Test within 5-						
		Requirem	ents	7			
		Avg. AF lb					
	Hot Dry		1	7			
	6ft FF	< 1125	< 1,800	7			
	12 ft FF	< 1,575	< 1,800				
	Max. Deploy	ment Distance	<u> </u>	1			
	6ft FF	48- inches	3				
	12 ft FF	60-inches					
				_ _			
		Condition Sa					
			a minimum of 8				
	hours prior t	o test:		_			
	Test Date:		9/13/19				
	Temp:		45.2°	_			PASS
	Start Time:		3:30pm 9/12				. 7.00
	Stop Time:		9:45am 9/13				
	HOT Dry						
	6 ft FF:		Sample: 1	Sample: 2	Sample: 3		
	12 ft FF:	х	Jampie. 1	Sample, 2	Sample. 3		
	"Zero" force		YES	YES	YES		
	Time: chamb		1	1	1	Min	
	Time: in cha	•	18/15	18/20	18/25	Hrs/min	
	Elongation, i		171 ¾	171 ¾	171 ¾	Inches	
	Elongation, 1		225 1/4	224 ¾	225	Inches	
	Total Elonga		53 ½	53	53 ¼	Inches	
	AF avg. :	. ,	919	929	925	Lbs-f	
	AF max. :		1446	1512	1477	Lbs-f	

SECTION		REQUIREN	IENT			RESU	LTS		COMPLIANCE	
(TEST)	Charle C:									
3.2.9	Static Strength	esting of Y-	Lanyards	Configura	ation #	1 (soction )	1 7 1\			
					Configuration #1 (section 4.7.1) Connection – central connector/one EAL leg					
				6 ft						
				12 ft	х	1	2	3		
				Break	1	NO	NO	NO		
				Configur	ation #	2 (section 4	1.7.2)			
(4.7)			> 5,000 lbs-f for 1	Connecti	on – ce	entral conn	ector/altern	ate leg		
	minute. Time to	reach load t	o be 3-minutes	6 ft			Sample:			
	minimum.			12 ft	Х	1	2	3	PASS	
				Break		NO	NO	NO		
						1 (section 4				
					on – be	etween two				
				6 ft			Sample:	_		
				12 ft	X	1	2	3		
				Break		NO	NO	NO		
(4.8)			ng of Y-Lanyards – sing	_		or measurer	ments			
	Ambient Dry	Avg. AF Ib		7						
	6ft FF	< 900	< 1,800							
	12 ft FF	< 1,350	< 1,800	7						
	Max. Deploym	ent Distance	9							
	6ft FF	48- inche								
	12 ft FF	60-inches								
								1	PASS	
	AMBIENT DRY			6		16 .	2			
	6 ft FF:		Sample: 1	Sample: 2		Sample	: 3			
	12 ft FF: "Zero" force se	X	VEC	VEC		<del> </del>	YES			
	Elongation, ini		YES 171 ½	YES 171 ½		_	71 ½	Inches		
	Elongation, initial		221 ½	224			220	Inches		
			50	52 1/2		_	8 ½	Inches		
	Total Elongation (Ef-Ei):  AF avg. :		955	977			994	Lbs-f		
	AF max. :		1355	1521		_	600	Lbs-f		
	711 IIIUA		1333	1521				2001		

SECTION (TEST)		REQUIREME	NT		RESU	ILTS		COMPLIANCE
3.2.10.2 (4.9)		Avg. AF lbs-1 < 1,800 < 1,800	of Y-Lanyards – Du- use 20-lb test weig f Max. AF lbs-f < 1,800 < 1,800		Sample	:: 3		PASS
	"Zero" force s AF avg. : AF max. :	ensor:	YES 960 1313	YES 953 1590		YES 956 1380	Lbs-f Lbs-f	
4.10	Dynamic Perfor Hip Test  Ref: section 3.2.	·	of Y-Lanyards –	Ambient Dry 6 ft FF:  "Zero" force AF avg.: AF max.: Nylon keepe  Ambient Dry 6 ft FF:  "Zero" force AF avg.: AF max.: Nylon keepe  Ambient Dry 6 ft FF:  "Zero" force AF avg.: AF max.: Nylon keepe  Ambient Dry 6 ft FF:  "Zero" force AF avg.: AF max.: Nylon keepe  * IF keeper brilabel on each	x e sensor:  x y x e sensor:  x broke *  x e sensor:  x broke *  x e sensor:  x broke *  x e sensor:	Y    955   1355   Y	ple: 1  ES  Lbs-f  Lbs-f  ES  ple: 2  ES  Lbs-f  Lbs-f  Lbs-f  ES  warning	PASS

5.1	Marking and Reference Literature		RESULTS					
	Marking and Reference Literature							
5 1 1	General Marking Requirements							
J.1.1	Shall be in English						PASS	
5.1.2	Required markings shall endure the life of the component, when PSL's are used they shall comply with UL969-89						PASS	
5.1.3	Equipment shall be marked with the following:	:						
	Marking	Comments		YES	NO	NA		
	Part number and model designation			Х				
	Year of manufacture			Х				
	Manufacturer's name or logo			Х				
	Capacity rating			Х				
	Serial number			Х			PASS	
	Standard number			X				
	Warning to follow the manufacturer's							
	instructions included with the equipment			х				
	at time of shipment from the manufacturer							
		l		ı	ı			
5.2	Specific marking requirements						I	
5.2.1	PEA's and EAL's shall be marked with the follow	wing:						
	Marking	Comments		YES	NO	NA		
	The fiber used in the material of							
	construction			X				
	The length			Х				
	The need to avoid contact with sharp							
	edges and abrasive surfaces			X				
	The need to make only compatible							
	connections			X				
	The maximum elongation			Х				
	Restriction, if, any, on the types of							
	components, with which the PEL is			х				
	designed to be used						PASS	
	The Avg AF, Max FF distance , and capacity							
	of the PEA on a separate label identical in			Х				
	size, color, and content as fig 17a and 17b							
	6 ft FF PEA's shall be in black print on a							
	contrasting white background, fig 17a					X		
	12 ft FF PEA's shall be in white print on a							
	contrasting black background, fig 17b			Х				
							1	

manufacturer, or persons or entities authorized

in writing by the manufacturer, shall make repairs

Instructions shall require the user to remove equipment from field service if it has been

subjected to the forces of arresting a fall

to the equipment

5.3.4

Report No.: 104092990CRT-001 Date: September 27<sup>th</sup> 2019

**SECTION REQUIREMENT RESULTS** COMPLIANCE (TEST) 5.2.2 Y-Lanyard Marking In addition to, Y-Lanyards that fail the Dynamic Hip Test in section 3.2.10 must include a warning PASS on both connecting ends of the lanyard specifically directing users how to safely store the unused leg of the lanyard 5.3 **General Instruction Requirements** 5.3.1 Instructions shall be in English, and affixed to the equipment at time of shipment from the **PASS** manufacturer 5.3.2 Instructions shall contain the following information: YES NO NA Instructions Comments A statement that the manufacturer's instructions Χ shall be provided to the users Manufacturers name, address, and telephone Χ number Manufacturer's part number and model Χ designation for the equipment Intended use and purpose of the equipment Χ Proper method of use and limitations on use of Χ the equipment Illustrations showing locations of markings on the Χ equipment **PASS** Reproduction of printed information on all Χ markings Inspection procedures required to assure the equipment is in serviceable condition and Χ operating correctly Anchorage requirements Χ An illustration of how to calculate free fall Χ distances Criteria for discarding equipment which fails Х Procedures for cleaning. maintenance, and Χ storage Reference to Z359.13 Χ 5.3.3 Instructions shall require that only the equipment

**PASS** 

PASS

Report No.: 104092990CRT-001

Date: September 27<sup>th</sup> 2019

#### **SECTION 5**

#### **REVISION HISTORY**

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
104060825CRT-001	9/13/19	Original	Matthew Stevens	Andrew Rulison
104092990crt-001	9/27/19	Extension Report	Matthew Stevens	Andrew Rulison