



INTERTEK TEST REPORT

Cindy Kunitsugu
GF Protection
6305 S 231st Street
Kent, WA 98032-1872
USA

Intertek Test Report Number: G102427923CRT-001
Intertek Signed Quote Number (s): Qu-00663211
Product Type: Dual Leg Lanyard
Product Model: 01230 (6')
Type of Testing Entity: Third Party Testing Laboratory
Test Standard: ANSI/ASSE Z359.13-2013
Evaluation/Testing Location: Intertek, 3933 US Rt. 11, Cortland NY 13045 **
Date(s) of Testing: 1/4/16 - 1/6/16

Dear Cindy,

Intertek has completed the evaluation of your 6' dual leg lanyard, to the client specified requirements of American National Standard, Safety Requirements for Personal Energy Absorbers and Energy Absorbing Lanyards, ANSI/ASSE Z359.13-2013. The test samples were received in pristine condition. The evaluation was performed at Intertek in Cortland, NY on the dates posted below. In addition to the model listed above the following models have been found to be of the same materials and construction which will be covered in addition under the the following testing: model, 01214, 01215, 01216, 01217, 01218, 01220, 01220-VANDALIA, 01221, 01222, 01223, 01224, 01225, 01226, 01231, 01231-A, 01232-UF, 01233, 01234, 01285 and 01286.

Table with 4 columns: Tests Completed, Test Date, ANSI/ASSE Z359.13-2013, Pass/Fail. Rows include Static Strength, Activation Force, Dynamic Performance (Y Lanyard), Dynamic Performance (hot), Dynamic Performance (cold), Dynamic Performance (wet), General Requirements, and Markings and instructions.

Please see attached test data for details.

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.

Tested by,

Matthew Stevens

Matthew Stevens
Technician
Performance Group

Reviewed by,

Handwritten signature of Andrew Rulison

Andrew Rulison
Associate Engineer/Team Lead
Performance Group

** Intertek Laboratory is ISO/IEC 17025:2005 (CAN-P-4E) accredited by Standards Council of Canada (SCC) with the scope available for review at the following location: http://www.scc.ca/en/palcan/38

This report 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 report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. 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 in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Intertek, Inc.

3933 US Route 11, Cortland, NY 13045 USA
Telephone: +1 607-753-6711 Fax: +1 607-756-9891 Web: www.intertek.com



INTERTEK TEST DATA SHEETS

Client/Ref #: <u>Guardian Protection</u>	Engineer: <u>Andrew Rulison</u>	
Job No.: <u>G102427923</u>	Tested By: <u>Matthew Stevens</u>	Date: <u>1/6/16</u>
Product: <u>6' Y Lanyard</u>	Reviewed By: <u>Andrew Rulison</u>	Date: <u>4/12/16</u>
Model No.: <u>01230</u>	Standard: <u>ANSI/ASSE Z359.13-2013</u>	

Sample Control No

: CRT1512281013

TRANSCRIBED TEST DATA

System Verification		
System Includes: Load Cell, NI Card, & Labview Program		
Pre-Calibration		
1. Zero program		Yes
2. Attach weight to load cell	Weight used (lbs): 282	
3. Activate Labview Scan		Yes
4. Record and print/save scan to project file	Weight recorded (lbs): 282.1	
Post-Calibration		
1. Zero program		Yes
2. Attach weight to load cell	Weight used (lbs): 282	
3. Activate Labview Scan		Yes
4. Record and print/save scan to project file	Weight recorded (lbs):282.2	
5. Completed by and date	By:MS	Date: 1/4/16 – 1/6/16

Section (Test)	Requirement	Results	Compliance																																								
3	Requirements																																										
3.1	Personal Energy Absorber (PEA) Component																																										
3.1.1	Classifications																																										
3.1.1.1	6 ft FF	YES	PASS																																								
3.1.1.2	12 ft FF	NA	NA																																								
3.1.2	Material	Virgin synthetic materials YES	PASS																																								
3.1.3	Terminations																																										
3.1.3.1	Spliced		NA																																								
3.1.3.2	Stitched	YES	PASS																																								
3.1.3.3	Wire rope		NA																																								
3.1.3.4	Terminations (other)		NA																																								
3.1.4	Connectors	Meet Z359.1 or Z359.12 YES	PASS																																								
3.1.5	Deployment indicator	Obvious it is activated, flag or label YES	PASS																																								
3.2.9 (4.7)	Static Strength Testing of EA Lanyard Subject a previously dynamically activated PEA to a force > 5,000 lbs-f for 1 minute. Time to reach load to be 3-minutes minimum. (Pull at a uniform rate of 2-in/min per section 4.1.6)	<table border="1" style="width:100%"> <tr> <td>6 ft</td> <td align="center">X</td> <td align="center" colspan="3">Sample</td> </tr> <tr> <td>12 ft</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fixed</td> <td align="center">X</td> <td align="center">1</td> <td align="center">2</td> <td align="center">3</td> </tr> <tr> <td>Adjust</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td align="center" colspan="4">Break?</td> </tr> <tr> <td align="center">Leg #1</td> <td align="center">NO</td> <td align="center">NO</td> <td align="center">NO</td> <td></td> </tr> <tr> <td align="center">Leg #2</td> <td align="center">NO</td> <td align="center">NO</td> <td align="center">NO</td> <td></td> </tr> <tr> <td align="center">Leg to Leg</td> <td align="center">NO</td> <td align="center">NO</td> <td align="center">NO</td> <td></td> </tr> </table>	6 ft	X	Sample			12 ft					Fixed	X	1	2	3	Adjust						Break?				Leg #1	NO	NO	NO		Leg #2	NO	NO	NO		Leg to Leg	NO	NO	NO		PASS
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Product: <u>6' Y Lanyard</u>	Reviewed By: <u>Andrew Rulison</u> Date: <u>4/12/16</u>
Model No.: <u>01230</u>	Standard: <u>ANSI/ASSE Z359.13-2013</u>

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Job No.: <u>G102427923</u>	Tested By: <u>Matthew Stevens</u> Date: <u>1/6/16</u>
Product: <u>6' Y Lanyard</u>	Reviewed By: <u>Andrew Rulison</u> Date: <u>4/12/16</u>
Model No.: <u>01230</u>	Standard: <u>ANSI/ASSE Z359.13-2013</u>

Sample Control No

: CRT1512281013

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4.10	<p>Dynamic Performance Testing of Y-Lanyards – Hip Test</p> <p>Ref: section 3.2.10</p>	<table border="1"> <tr><th colspan="2">Ambient Dry</th><th>Sample 1</th><th>Sample 2</th><th>Sample 3</th></tr> <tr><td>6 ft FF:</td><td></td><td>X</td><td>X</td><td>X</td></tr> <tr><td>12 ft FF:</td><td></td><td></td><td></td><td></td></tr> <tr><td>"Zero" sensor:</td><td></td><td>Yes</td><td>Yes</td><td>Yes</td></tr> <tr><td>AF avg. : Lbs</td><td></td><td>789</td><td>800</td><td>781</td></tr> <tr><td>AF max. : Lbs</td><td></td><td>1120</td><td>1151</td><td>1243</td></tr> <tr><td>Nylon keeper broke</td><td></td><td>YES</td><td>YES</td><td>YES</td></tr> </table> <p>* IF keeper broke, the EAL must include a warning label on each leg (section 5.2.2)</p>	Ambient Dry		Sample 1	Sample 2	Sample 3	6 ft FF:		X	X	X	12 ft FF:					"Zero" sensor:		Yes	Yes	Yes	AF avg. : Lbs		789	800	781	AF max. : Lbs		1120	1151	1243	Nylon keeper broke		YES	YES	YES		PASS																																																					
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4.2	<p>Activation Force Testing of PEA's</p> <p>Apply 10 lb load and measure bearing pt to bearing pt, apply static force of 450 lbs minimum, hold for no less than 1 minute, examine for activation, release load, allow sample to recover un-tensioned for 1 hour , then re-measure with 10-lb load, shall not activate or elongate > 2-inches.</p>	<table border="1"> <tr><td>6 ft FF:</td><td></td><td>Sample: 1</td><td>Sample: 2</td><td>Sample: 3</td></tr> <tr><td>12 ft FF:</td><td></td><td></td><td></td><td></td></tr> <tr><td>Signs of Activation:</td><td></td><td>NO</td><td>NO</td><td>NO</td></tr> <tr><td>Length, initial:</td><td></td><td>74"</td><td>74"</td><td>74"</td></tr> <tr><td>Length, final:</td><td></td><td>75"</td><td>75"</td><td>75"</td></tr> <tr><td>Elongation (Lf-Li):</td><td></td><td>1"</td><td>1"</td><td>1"</td></tr> </table>	6 ft FF:		Sample: 1	Sample: 2	Sample: 3	12 ft FF:					Signs of Activation:		NO	NO	NO	Length, initial:		74"	74"	74"	Length, final:		75"	75"	75"	Elongation (Lf-Li):		1"	1"	1"		PASS																																																										
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Section (Test)	Requirement	Results	Compliance
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

5	Marking and Reference Literature					
5.1	General Marking Requirements					
5.1.1	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:			PASS		
	Marking	Comments	YES		NO	NA
	Part number and model designation		X			
	Year of manufacture		X			
	Manufacturer's name or logo		X			
	Capacity rating		X			
	Serial number		X			
	Standard number		X			
	Warning to follow the manufacturer's instructions included with the equipment at time of shipment from the manufacturer		X			
5.2	Specific marking requirements					
5.2.1	PEA's and EAL's shall be marked with the following:			PASS		
	Marking	Comments	YES		NO	NA
	The fiber used in the material of construction		X			
	The length		X			
	The need to avoid contact with sharp edges and abrasive surfaces		X			
	The need to make only compatible connections		X			
	The maximum elongation		X			
	Restriction, if, any, on the types of components, with which the PEL is designed to be used		X			
	The Avg AF, Max FF distance , and capacity of the PEA on a separate label identical in size, color, and content as fig 17a and 17b		X			
	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		X			

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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 on both connecting ends of the lanyard specifically directing users how to safely store the unused leg of the lanyard								NA																																																																									
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5.3.3	Instructions shall require that only the equipment manufacturer , or persons or entities authorized in writing by the manufacturer, shall make repairs to the equipment		PASS																																			
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01230	SS72-2 6' Double Leg Shock Absorbing Lanyard
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Units covered by this test

01214	SS36 3 ft. Single Leg Shock Absorbing Lanyard
01215	SS48 4 ft. Single Leg Shock Absorbing Lanyard
01216	SS48 4 ft. Single Leg Shock Absorbing Lanyard with HS rebar hook on leg
01217	SS48-2 / 4 ft. Double Leg Shock Absorbing Lanyard w/ high strength snap hook
01218	SS48-2R 4 ft. Double Leg Shock Absorbing Lanyard with HS Rebar Hooks/ HS Snap Hook
01220	SS72 6' Single Leg Shock Absorbing Lanyard (Yellow)
01220-VANDALIA	SS72 6' Single Leg Shock Absorbing Lanyard with Vandalia Label w/ high strength snap hook
01221	SS72R 6' Single Leg Shock Absorbing Lanyard with high strength rebar/snap hook
01222	6' Single Leg Shock Absorbing Lanyard, loop ends. Large loop at shock pack end to choke onto harness, smaller loop at leg end to accept carabineer.
01223	SS72-FR 6' Single Leg Shock Absorbing Fire Retardant Lanyard / HS snap hook / FR Shock Cover
01224	SS72-FR 6' Single Leg Shock Absorbing Fire Retardant Lanyard / FR Shock Cover / HS aluminum snaphook at top, HS aluminum rebar hook on leg
01225	6' Shock Absorbing Lanyard with attached wire hook anchor
01226	6' Double Leg Shock Absorbing Lanyard with HS rebar hooks, sewn-on D-ring extender, HS snap hook
01231	SS72-2R 6' Double Leg Shock Absorbing Lanyard with HS rebar hooks / HS snap hook
01231-A	SS72-2R 6' Double Leg Shock Absorbing Lanyard with HS aluminum rebar hooks / HS aluminum snap hook
01232-UF	54" Double Leg Shock Absorbing Lanyard with high strength steel rebar hooks on legs, 12" loop at top of shock pack
01233	6' Double Leg Shock Absorbing Lanyard with HS rebar hooks, HS snap hook, 18" O- ring extension.
01234	6' Double Leg Shock Absorbing Lanyard. Non-swivel Triple-Lock carabineers on legs, HS steel snaphook on shock pack.
01285	SSAWL4-6 Shock Absorbing Adjustable Lanyard from 4 ft. to 6 ft. with HS snaphooks
01286	Shock Absorbing Adjustable Lanyard, 3.25 to 4 ft. with HS snaphooks