



## **INTERTEK TEST REPORT**

3933 US ROUTE 11

CORTLAND, NEW YORK 13045

**REPORT NO.: G101511985CRT-001**

**RENDERED TO:**

**PORTWEST, LLC  
1272 OMEGA PARKWAY  
SHEPERDSVILLE, KY 40165**

---

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 copy or distribute 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.

**STANDARDS USED:**

ASTM F1790 - *Standard Test Method for Measuring Cut Resistance of Materials Used in Protective Clothing* 2005 Edition  
CEN EN 388 - *Protective Gloves Against Mechanical Risks* 2003 Edition  
ASTM D3389 - *Standard Test Method for Coated Fabrics Abrasion Resistance (Rotary Platform Abrader)* 2005 Edition  
ASTM D3884 - *Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)* 2009 Edition  
CENELEC EN 420 – *Protective Gloves – General Requirements and Test Methods* 2003 Edition  
ASTM F1060 - *Standard Test Method for Thermal Protective Performance of Materials for Protective Clothing for Hot Surface Contact* 2008 Edition  
ASTM F1358 - *Standard Test Method for Effects of Flame Impingement on Materials Used in Protective Clothing Not Designated Primarily for Flame Resistance* 1995 Edition

**AUTHORIZATION:**

The tests were authorized by Quote Number 500503128, 500516246, 500524406, 500530713 signed by Ray Carney and Robbie Irwin.

**SPECIMEN DESCRIPTION:**

The tests were performed on specimens identified by the client as: UA100GN, UA110WB, UA120BK, UA140BK, UA145Y4, UA146BK, UA150OR, UA210GR, UA220RE, UA300NA, UA310GR, UA320BK, UA330YE, UA340YE, UA500RE, UA530RB, UA620GR, UA621BK, UA622G7, UA710BK, UA725YE, UA740BK, and UA790BK. The samples previously described, were received in pristine condition between 01/08/2014 and 05/15/2014 and evaluated between 02/12/2014 and 06/12/2014. The testing was performed at Intertek located in Cortland, NY.

**CONCLUSION:**

The samples submitted by Portwest House, were evaluated in accordance with ASTM F1790 - Standard Test Method for Measuring Cut Resistance of Materials Used in Protective Clothing 2005 Edition; CEN EN 388 - Protective Gloves Against Mechanical Risks 2003 Edition; ASTM D3389 - Standard Test Method for Coated Fabrics Abrasion Resistance (Rotary Platform Abrader) 2005 Edition; ASTM D3884 - Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method) 2009 Edition; CENELEC EN 420 – Protective Gloves – General Requirements and Test Methods 2003 Edition; ASTM F1060 - Standard Test Method for Thermal Protective Performance of Materials for Protective Clothing for Hot Surface Contact 2008 Edition; ASTM F1358 - Standard Test Method for Effects of Flame Impingement on Materials Used in Protective Clothing Not Designated Primarily for Flame Resistance 1995 Edition. Test data sheets are attached as an appendix (71 pages following).

Test Standard	ANSI 105 Rating					
	Cut ASTM F1790-05	Puncture EN 388-03	Dexterity EN 420-03	Abrasion ASTM 3389-05 / ASTM3884-09	Conductive ASTM F1060-08	Flame ASTM F1358-95
Style						
UA100GN	1	4	5	2	n/a	n/a
UA110WB	1	3	5	1	n/a	n/a
UA120BK	1	2	5	0	n/a	n/a
UA140BK	1	3	5	1	n/a	n/a
UA145Y4	2	3	5	1	5	n/a
UA146BK	2	3	5	1	5	n/a
UA150OR	1	2	5	1	n/a	n/a
UA210GR	0	4	4	3	n/a	n/a
UA220RE	2	5	4	4	n/a	n/a
UA300NA	1	2	5	3	n/a	n/a
UA310GR	0	2	5	2	n/a	n/a
UA320BK	1	2	5	3	n/a	n/a
UA330YE	1	2	5	0	n/a	n/a
UA340YE	1	2	5	2	n/a	n/a
UA500RE	1	5	4	3	n/a	4
UA530RB	1	5	3	4	n/a	4
UA620GR	1	4	5	2	n/a	n/a
UA621BK	2	4	5	3	n/a	n/a
UA622G7	3	5	4	2	n/a	n/a
UA710BK	1	3	4	3	n/a	n/a
UA725YE	2	4	4	3	n/a	n/a
UA740BK	1	3	5	2	n/a	n/a
UA790BK	4	4	5	n/a	n/a	n/a

Report Prepared by:

Report Approved by:




Pam Kavalesky  
Engineer  
Performance Group

Rob Simmonds  
Engineer  
Performance Group

ASTM F1790-2005

PRODUCT DESCRIPTION: Glove Palm – Style UA530RB

BLADE DESIGNATION: GRU-GRU TXTL BLD

BLADE LOT ID: 3785-255-2013-572457-001001

CALIBRATION: (cut length for 1.57mm ± 0.05mm (0.062in ± 0.002in) thick Neoprene with 500 gm load):  
(For Calibration – Blade travel distance between 10mm & 15mm)

Before Sample Testing (A): 13.61 mm  
CB = [A+B]/2: 13.20 mm

After Sample Testing (B): 12.79 mm  
Normalized Correction Factor (12.7/CB): 0.96

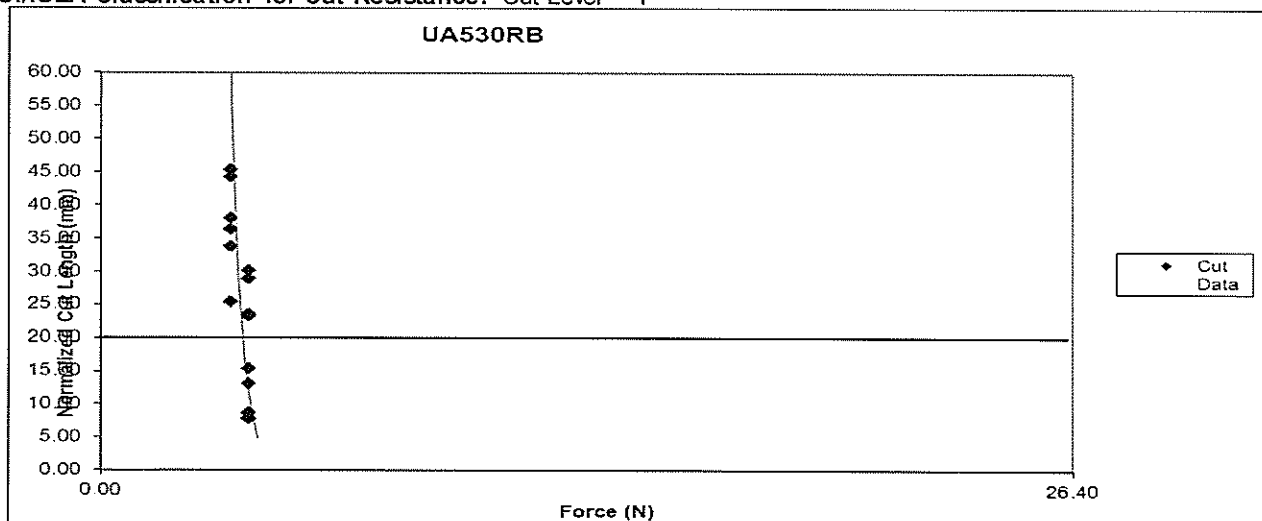
Column	1	2	3
Reading Number	Force (N)	Cut Length (mm)	Normalized Cut Length (mm)
1	4.04	8.11	7.79
2	4.04	8.34	8.01
3	4.04	9.07	8.71
4	4.04	13.73	13.18
5	4.04	16.01	15.37
6	4.04	24.21	23.24
7	4.04	24.55	23.57
8	4.04	30.19	28.98
9	4.04	31.41	30.15
10	3.54	26.41	25.35
11	3.54	35.12	33.72
12	3.54	37.91	36.39
13	3.54	39.65	38.06
14	3.54	46.18	44.33
15	3.54	47.18	45.29

Normalized Reference Load (RL): 3.87 N (395 g)

Corrected Load: 1.031

R-Squared: 0.4967

ANSI/ISEA Classification for Cut Resistance: Cut Level – 1



## CEN EN 388-2003

PRODUCT DESCRIPTION: Glove Palm - UA530RB (Gold Leather) (3/2 layers\*)

NO. OF LAYERS: 3/2

LAYUP: outer- Gold Leather / inner- woven felt liner (\*third layer of red leather not tested, palm patch)

CONDITIONING: In accordance with EN 388:2003; section 5.3, at a temperature  $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and a relative humidity of  $50\% \pm 5\%$  for at least 24 hours. Per EN 388:2003; sec. 5.4: Test performed in a different environment shall be started within 5 minutes after removal from conditioning.

Specimen No.	Puncture No.	Force to Puncture (N)
1	1	218.8
	2	213.0
	3	142.8
2	1	127.2
	2	227.9
	3	188.2
3	1	191.0
	2	140.8
	3	159.2
4	1	195.3
	2	191.1
	3	186.6
Average		181.8

ANSI/ISEA 105-2011 Classification for Puncture Resistance (Table 2): 5 (NOTE: not all liners are identical)

## CEN EN 420-2003

PRODUCT DESCRIPTION: Whole Glove – UA530RB

Glove Size: XLarge		Pin Diameter (mm)				
Able To Pick Up Pin?	11	9.5	8	6.5	5	Level
Sample 1	Yes	Yes	Yes	No	No	3
Sample 2	Yes	Yes	Yes	No	No	3
Sample 3	Yes	Yes	Yes	No	No	3
Sample 4	Yes	Yes	Yes	No	No	3

ASTM D 3389-2005/ASTM D 3884-2009

PRODUCT DESCRIPTION: UA530RB (Gold)

STANDARD: ASTM D 3884-09

WHEEL LOAD: 1000 grams

<b>Abrasion Cycles:</b> (end point shall be when the first thread or yarn is broken; per ANSI 105-2011; 5.1.3 Or, desired classification minimum reached.)				
Specimen 1	7,950		Specimen 4	1,700
Specimen 2	1,755		Specimen 5	2,500
Specimen 3	1,500		<b>AVERAGE</b>	3,081

Note: All five specimens have a hole

Note: ANSI 105 does not list an endpoint, or procedure for leather. Per Client: Abrade until 3,000 cycles, or a hole through material, using 1,000 grams load.

Note: Specimen 1 continued to obtain hole cycle average (not a type-o); 7,950 cycles. Variable degrees of imperfections in specimens seem to be causing varying results.

ANSI/ISEA 105-2011 Classification for Abrasion Resistance (Table 3): 4 (report average of cycles creating a hole; see note above)

## ASTM F 1358-95

**PRODUCT DESCRIPTION:** UA530RB (Gold; Back)

**CONDITIONING:** At a relative humidity of 45% to 70% and a temperature of 20°C to 25°C for at least 24 hours prior to testing.

**ISOTROPIC MATERIAL:**

SPECIMEN NUMBER	1	2	3	4	5
DID SPECIMEN IGNITE; 3 SEC. EXPOSURE (yes/no)	No	No	No	No	No
AFTERFLAME (sec)	0	0	0	0	0
AFTERGLOW (sec)	0	0	0	0	0
DID SPECIMEN IGNITE; 12 SEC. EXPOSURE (yes/no)	No	No	Yes	No	No
AFTERFLAME (sec)	0.5	0.7	1.5	0.4	0.7
AFTERGLOW (sec)	0	0	0	0	0
BURN DISTANCE (mm)	10	10	10	10	10
DID SPECIMEN DRIP (yes/no)	No	No	No	No	No
DID SPECIMEN MELT (yes/no)	No	No	No	No	No

SPECIMEN NUMBER	6	7	8	9	10	AVG.
DID SPECIMEN IGNITE; 3 SEC. EXPOSURE (yes/no)	No	No	No	No	No	
AFTERFLAME (sec)	0	0	0	0	0	0
AFTERGLOW (sec)	0	0	0	0	0	0
DID SPECIMEN IGNITE; 12 SEC. EXPOSURE (yes/no)	Yes	No	No	No	Yes	
AFTERFLAME (sec)	89.3	0.6	0.6	0.8	3.5	9.9
AFTERGLOW (sec)	105.2	0	0	0	0	10.5
BURN DISTANCE (mm)	50	10	10	10	10	14
DID SPECIMEN DRIP (yes/no)	No	No	No	No	No	
DID SPECIMEN MELT (yes/no)	No	No	No	No	No	

ANSI/ISEA 105-2011 Classification for Ignition and Burning Resistance (Table 6): 4

## ASTM F 1358-95

**PRODUCT DESCRIPTION:** UA530RB (Gold w/red patch; Palm)

**CONDITIONING:** At a relative humidity of 45% to 70% and a temperature of 20°C to 25°C for at least 24 hours prior to testing.

**ISOTROPIC MATERIAL:**

SPECIMEN NUMBER	1	2	3	4	5
DID SPECIMEN IGNITE; 3 SEC. EXPOSURE (yes/no)	No	No	No	No	No
AFTERFLAME (sec)	0	0	0	0	0
AFTERGLOW (sec)	0	0	0	0	0
DID SPECIMEN IGNITE; 12 SEC. EXPOSURE (yes/no)	No	No	No	No	No
AFTERFLAME (sec)	0	0	0	0	0
AFTERGLOW (sec)	0	0	0	0	0
BURN DISTANCE (mm)	10	10	10	10	10
DID SPECIMEN DRIP (yes/no)	No	No	No	No	No
DID SPECIMEN MELT (yes/no)	No	No	No	No	No

SPECIMEN NUMBER	6	7	8	9	10	AVG.
DID SPECIMEN IGNITE; 3 SEC. EXPOSURE (yes/no)	No	No	No	No	No	
AFTERFLAME (sec)	0	0	0	0	0	0
AFTERGLOW (sec)	0	0	0	0	0	0
DID SPECIMEN IGNITE; 12 SEC. EXPOSURE (yes/no)	No	No	No	No	No	
AFTERFLAME (sec)	0	0	0	0	0	0
AFTERGLOW (sec)	0	0	0	0	0	0
BURN DISTANCE (mm)	10	10	10	10	10	10
DID SPECIMEN DRIP (yes/no)	No	No	No	No	No	
DID SPECIMEN MELT (yes/no)	No	No	No	No	No	

ANSI/ISEA 105-2011 Classification for Ignition and Burning Resistance (Table 6): 4