DALLAS LABORATORIES, INC.

Consultants and Technologists
Chemical and Petroleum Chemists

P.O. BOX 152837, DALLAS, TEXAS 75315
1323 WALL ST, DALLAS, TEXAS 75215
PHONE 214/565-0593
FAX 214/565-1094

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Submitted by: **CoreTex Products, Inc.**
1850 Sunnyside Ct.
Bakersfield, CA 93308

Date: November 26, 2012

Report No.: 45381

REPORT

Lab Sample No.:

45381 COR05 (Thick SPF 30 Sunscreen), Batch #12B08C was contacted with rubber linemans gloves (Type 1, Class 2, ANSI/ASTM D120) to determine if any significant changes occur in the tested properties of the gloves.

PROCEDURE

Tensile Properties

The outer-surface of the glove was rubbed with a liberal amount of COR05, Thick SPF 30 Sunscreen, wiped off, allowed to stand thusly for 4 hours and then washed with mild soap and warm water. The above procedure was repeated once a day for 3 days. On the fourth day, samples were cut from the cuff areas of the gloves and tested as reported.

Area Swell

Test samples were measured after 24 hour soaks at 75°F in the COR05, Thick SPF 30 Sunscreen.

AC Electrical Proof Tests

Glove samples exposed to the COR05, Thick SPF 30 Sunscreen as per tensile property samples but were not cut up. Test was performed at 20 KV @ 3 minutes; maximum proof test current was recorded during last 20 seconds of the test. Pass/Fail criteria is based on a maximum proof test current of 16 mA as dictated by Class 2 and 14" glove length. Clearance from cuff to water line was set at 3 inches. Test was repeated after 16 hour soak in distilled water.

RESULTS

Tensile Properties (ASTM D412, Avg. of 5)

	Control	COR05, Thick SPF 30 Sunscreen
Tensile Strength, psi		
Initial	2,007	-
After 3 day Exposure	-	1,827
% Change from Initial	-	-9.0%
Initial Aged 7 days @ 158°F	2,118	-
After 3 day Exposure and 7 day aging @ 158°F	-	2,137
% Change from Initial	+5.5%	+6.5%
Ultimate Elongation, %		
Initial	1,199	-
After 3 day Exposure	-	1,191
% Change from Initial	-	-0.7%
Initial Aged 7 days @ 158°F	1,162	-
After 3 day Exposure and 7 day aging @ 158°F	-	1,202
% Change from Initial	+3.1%	+0.3%
Tensile @ 200%, psi		
Initial	51.3	-
After 3 day Exposure	-	49.8
% Change from Initial	-	-2.9%
Initial Aged 7 days @ 158°F	55.9	-
After 3 day Exposure and 7 day aging @ 158°F	-	58.2
% Change from Initial	+9.0%	+13.5%

Area Swell, % (ASTM D471, Avg. of 3)

24 hour soak	-	1.2%

AC Electrical Proof Test (ASTM D120)

A)

Initial – Glove #	1	2	3
Leakage at 20 KV, mA	12.2	12.6	12.0
Pass/Fail	Pass	Pass	Pass
Breakdown Voltage, KV	36.1 (FO)	34.8 (FO)	35.1 (FO)
COR05, Thick SPF 30 Sunscreen			
3 day Exposure – Glove #	1	2	3
Leakage at 20 KV, mA	12.8	13.4	13.2
Pass/Fail	Pass	Pass	Pass
Breakdown Voltage, KV	33.1 (FO)	32.2(FO)	32.4 (FO)

	Control	COR05, Thick SPF 30 Sunscreen	
B) 16 hour Distilled Water Soak Test			
Initial – Glove #	1	2	3
Leakage @ 20 KV, mA	13.4	13.5	13.1
Pass/Fail	Pass	Pass	Pass
Breakdown Voltage, KV	32.6 (FO)	33.0(FO)	32.4 (FO)
COR05, Thick SPF 30 Sunscreen			
(3 day Exposure followed by 16 hour Soak Test)			
Glove #	1	2	3
Leakage @ 20 KV, mA	14.0	14.2	13.9
Pass/Fail	Pass	Pass	Pass
Breakdown Voltage, KV	30.9 (FO)	30.8 (FO)	31.1 (FO)

Note: (FO) Flashover indicates that the arc occurred over, but not through the glove.

DISCUSSION

The samples are slightly affected as to the physical properties, but show no affect as to the AC electrical proof tests. The 1.2% swell indicates that the rubber does "soak up" the COR05, Thick SPF 30 Sunscreen, but that the electrical resistance is not compromised.

DALLAS LABORATORIES, INC.

Kevan W. Jones, Vice President

Analyst: KJ, GF, TL
KWJ: js