

**"Progress Through Innovation, Technology
and Customer Satisfaction"**



August 16, 2006

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- TEST REPORT -

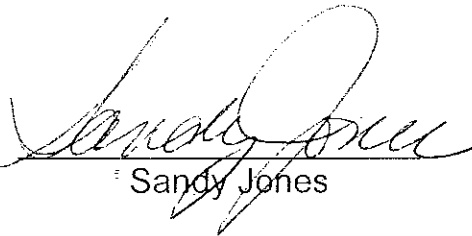
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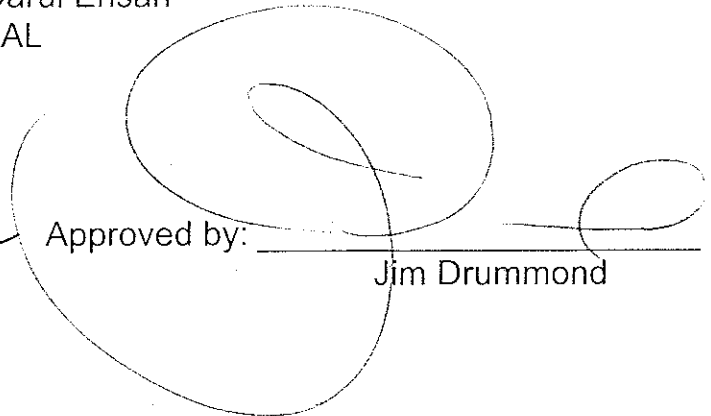
Prepared for:

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SUBJECT: Physical testing on material submitted by the above company.

RECEIVED: Three (3) pairs of Novax Class 3 Gloves identified as 113109 10, 113111 10 and 113112 10.

POLYMER IDENTIFICATION, ASTM D 3677-00(04)

Instrument: Perkin-Elmer Spectrum BX Spectrometer
Resolution: 4.0
Number of Scans: 6
Method of Preparation: Film

RESULTS

Polyisoprene

DIMENSIONS, PARA. 17.1 - 17.3.1

Three gloves tested.
Average of four readings reported.

REQUIREMENTS: Thickness Crotch, mm = 1.52 - 2.89
Thickness Palm & Back, mm = 1.90- 2.82

	<u>LENGTH, mm</u>	<u>WIDTH, mm</u>	<u>PALM, mm</u>	<u>CROTCH, mm</u>	<u>BACK, mm</u>
Glove 1	355	232	2.23	2.09	2.17
Glove 2	356	256	2.24	1.99	2.18
Glove 3	355	274	2.06	1.97	2.06

ORIGINAL PHYSICAL PROPERTIES, ASTM D 412-98a(02)e1, D 2240-05, D 624-00e1

Die C dumbbells tested at 20 in/min.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Shore A Durometer, points	36	47 max.	Pass
Tensile Strength, MPa	27.6	10.3 min.	Pass
Ultimate Elongation, %	804	500 min.	Pass
100% Modulus, MPa	0.713	-	-
200% Modulus, MPa	1.00	2.1 max.	Pass
300% Modulus, MPa	1.34	-	-
Tear Strength Die C, kN/m	48.3	14 min.	Pass

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PUNCTURE RESISTANCE, ASTM D 120-02a

Palm area punctured at 20 in/min.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Puncture Resistance, kN/m	198	18 min.	Pass

OZONE RESISTANCE, ASTM D 1149-99

Test specimens per ASTM D 518-99, Method A

Specimens exposed 3 hrs. @ 50 pphm @ 40°C, 20% elongation.

Observations made at 7x magnification.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
	No cracks	No cracks	Pass

HEAT-AGED PROPERTIES, ASTM D 573-04

Specimens aged 168 hrs. @ 70°C in a forced air oven.

	<u>RESULTS</u>	<u>REQUIREMENTS</u>	<u>PASS/FAIL</u>
Durometer, point change	+2	-	-
Tensile Strength, % of original	95.8	80 min	Pass
Elongation, % of original	87.6	80 min.	Pass

A-C PROOF TEST, ASTM D 120-95 SECTION 18.4.2

The glove was filled with tap water and immersed in water to a depth about 3 ½ inches from the cuff. A metal rod was lowered inside the glove as one electrode and a metal rod placed in the water tank outside the glove as the other electrode. A voltage was applied to the electrodes at an increasing rate of 1,000 V/s until specified voltage was reached. For Class 3 glove a maximum voltage of 30,000 V and a maximum current of 18 mA were used. The voltage was applied for a period of 3 min. after which the voltage was lowered to 0 V.

<u>Pass/Fail</u>	<u>Measured Current at 30 kV</u>
Pass	9 mA
Pass	9mA

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A-C MOISTURE ABSORPTION/PROOF TEST, ASTM D 120-95 SECTION 18.4.4

The glove was filled with tap water and immersed in water to a depth about 3 ½ inches from the cuff. The glove was soaked for a period of 16 hrs. A metal rod was lowered inside the glove as one electrode and a metal rod placed in the water tank outside the glove as the other electrode. A voltage was applied to the electrodes at an increasing rate of 1,000 V/s until specified voltage was reached. For Class 3 glove a maximum voltage of 30,000 V and a maximum current of 18 mA were used. The voltage was applied for a period of 3 min. after which the voltage was lowered to 0 V.


<u>Pass/Fail</u>	<u>Measured Current at 30 kV</u>
Pass	13 mA
Pass	14 mA

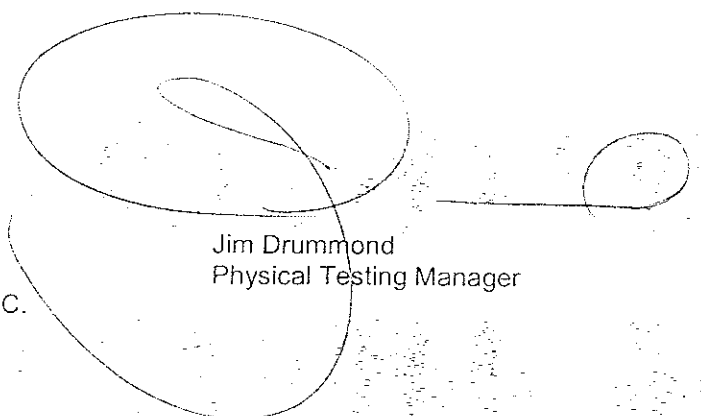
A-C BREAKDOWN TEST, ASTM D 120-95 SECTION 18.4.3

The glove was filled with tap water and immersed in water to a depth about 4 inches from the cuff. A metal rod was lowered inside the glove as one electrode and a metal rod placed in the water tank outside the glove as the other electrode. A voltage was applied to the electrodes at an increasing rate of 1,000 V/s until specified voltage was reached or breakdown occurred. For Class 3 glove a maximum voltage of 40,000 V was used.

<u>Pass/Fail</u>	<u>Voltage Applied (VAC)</u>
Pass	40,000
Flashover-arcing*	38,000

**In glove 2, the flashover-arcing occurred at 38,000 VAC; however, no breakdown was observed.*


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