July 30, 2008

· TEST REPORT ·

PN 79936C

PO

Physical Testing Department

Prepared For:

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July 30, 3008

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GB Industries Sdn. Bhd.

SUBJECT: Physical testing on material submitted by the above company ASTM D 120 Class 4 test specification. PO#

RECEIVED: Six (6) pairs of Novax Rubber Insulting gloves identified as Orange Class 4.

DIMENSIONS, PARA. 17.1 - 17.3.1
Three gloves tested.
Average of four readings reported.

REQUIREMENTS: Thickness Crotch, mm = 2.03 - 2.56
Thickness Palm & Back, mm = 2.54- 3.56

	LENGTH, mm	WIDTH, mm	PALM, mm	CROTCH, mm	BACK, mm
Glove 1	455	136	3.48	3.47	3.53
Glove 2	450	130	3.52	3.66	3.49
Glove 3	453	140	3.53	3.70	3.41

ORIGINAL PHYSICAL PROPERTIES, ASTM D 412-06, D 2240-05, D 624-00e1
Die C dumbbells tested at 20 in/min.

	RESULTS	REQUIREMENTS	PASS/FAIL
Shore A Durometer, points	38	47 max.	Pass
Tensile Strength, MPa	26.8	17.2 min.	Pass
Ultimate Elongation, %	692	600 min.	Pass
200% Modulus, MPa	1.034	2.1 max.	Pass
Tension Set @ 400%, %	5.5	25 max.	Pass

TEAR RESISTANCE, ASTM D 624-00e1, DIE C
Specimens tested at 20 in/min.

	RESULTS	REQUIREMENTS	PASS/FAIL
Tear Strength, kN/m	36.9	21 min.	Pass

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PUNCTURE RESISTANCE, ASTM D 120-02a
Palm area punctured at 20 in/min.

	RESULTS	REQUIREMENTS	PASS/FAIL
Puncture Resistance, kN/m	24.0	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.

RESULTS	REQUIREMENTS	PASS/FAIL
No cracks	No cracks	Pass

HEAT-AGED PROPERTIES, ASTM D 573-04
Specimens aged 168 hrs. @ 70°C in a forced air oven.

	RESULTS	REQUIREMENTS	PASS/FAIL
Durometer, point change	-2	-	-
Tensile Strength, % of original	106.1	80 min	Pass
Elongation, % of original	98.8	80 min.	Pass

POLYMER IDENTIFICATION, ASTM D 3677-00(04)
Instrument: Perkin-Elmer Autoimage FT-IR Microscope
Number of Scans: 32
Method of Preparation: Film

RESULTS
Polyisoprene

A-C PROOF TEST, ASDTM D 120-02a SECTION 18.4.2
The glove was filled with tap water and immersed in water to a depth about 5 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 1000 V/s until specified voltage for each class of glove was reached. For Class 4 gloves a maximum voltage of 40,000 V and a maximum current of 24 mA were used. The specified voltage was applied for a period of 3 minutes after which the voltage was lowered to 0 V.

Sample	Pass/Fail	Measured Current
Orange	Passed	14 mA

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A-C MOISTURE ABSORPTION/PROOF TEST, ASTM D 120-02a SECTION 18.4.4

The glove was filled with tap water and immersed in water to a depth about 5 inches from the cuff. The glove was soaked for a period of 16 hours. 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 1000 V/s until specified voltage for each class of glove was reached. For Class 4 gloves a maximum voltage of 40,000 V and a maximum current of 24 mA were used. The specified voltage was applied for a period of 3 minutes after which the voltage was lowered to 0 V.

Sample	Pass/Fail	Measured Current
Orange	Passed	15 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 6 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 1000 V/s until specified voltage for each class of glove was reached. For Class 4 gloves a maximum voltage of 50,000 V was used.

Sample	Pass/Fail	Voltage Applied (VAC)
Orange	Passed	50,000*

NOTE: Flashover-arcing occurred with both samples, however, no breakdown was observed.

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