Total Quality. Assured.

TEST REPORT

Number: GZHT90769427

Applicant: NANO-METRE INDUSTRIAL LIMITED
14F,ZHONGYI BUILDING,
NO.1040,CAOYANG RD, SHANGHAI
CHINA . P.C.200063

Date: Jan 24, 2018

Attn: HARDY

Sample Description:

Four (4) pairs of submitted samples said to be 13g nylon/HPPE/Glassfibre knitted liner coated latex on palm gloves.

Standard	:	BS EN 420: 2003+A1: 2009 BS EN 388: 2016
Colors	:	Grey & Black
Size Range	:	6 - 11
Style Name	:	DY1350NM-H
Palm	:	Latex
Back	:	Nylon/HPPE/Glassfibre
Cuff	:	Nylon/HPPE/Glassfibre
Cuff Binding	:	Polyester
Lining	:	Nylon/HPPE/Glassfibre
Goods Exported To	:	U.S.A., Europe, Asia
Date Received/Date Test Started	:	Jan. 17, 2018
Date Final Information Confirmed/ Date Payment Received:		--/--

Test Result Please Refer To Attached Page(S).

Should you have any query on this report, you may contact at gzfootwear@intertek.com

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch

Huang Ning, Andy
Assistant General Manager

SX / mikaliang

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Tests Conducted (As Requested By The Applicant)

1 Design And Construction (BS EN 420: 2003+A1: 2009, 4.1)

	Requirement	Pass/Fail
Comply With Requirement	*	Pass

Remark: * = The Protective Glove Shall Be Designed And Manufactured So That In The Foreseeable Conditions Of Use For Which It Is Intended, The User Can Perform The Hazard Related Activity Normally Whilst Enjoying Appropriate Protection At The Highest Possible Level. If Required, The Glove Shall Be Designed To Minimize The Time Needed For Putting On And Taking Off.
When The Glove Construction Includes Seams, The Material And Strength Of The Seams Shall Be Such That The Overall Performance Of The Glove Is Not Significantly Decreased.

2 Abrasion Resistance (BS EN 388: 2016, 6.1, 9 kPa)

Adhesion Contact Time Of Test Specimen With The Double-Sided Adhesive Tape Under A Weight Of A Approximatley 10 Kg	At Least 5 Min
Surface Treatment Of Test Specimen In Order To Improve Adhesion	No Surface Treatment
Abradant	The Klingspor PL 31 B-Grit 180 Grain Aluminium Oxide
Double-Sided Adhesive Tape	3M™ Double-Sided Adhesive Tape

Observation	Specimen 1	Specimen 2	Specimen 3	Specimen 4
After 100 Cycles:	No Breakthrough	No Breakthrough	No Breakthrough	No Breakthrough
After 500 Cycles:	No Breakthrough	No Breakthrough	No Breakthrough	No Breakthrough
After 2 000 Cycles:	No Breakthrough	No Breakthrough	No Breakthrough	No Breakthrough
After 8 000 Cycles:	Breakthrough (#1)	Breakthrough (#2)	Breakthrough (#3)	Breakthrough (#4)

Performance Level : 3

Remark:
The Minimum Requirements For Each Level:
Level 1: 100 Cycles
Level 2: 500 Cycles
Level 3: 2 000 Cycles
Level 4: 8 000 Cycles

#1= Breakthrough Occurred Before 3,000 Cycles
#2= Breakthrough Occurred Before 3,200 Cycles
#3= Breakthrough Occurred Before 3,500 Cycles
#4= Breakthrough Occurred Before 4,000 Cycles

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Tests Conducted (As Requested By The Applicant)

3 Blade Cut Resistance (BS EN 388:2016, 6.2)

Specimen 1 (Index)	Specimen 2 (Index)
I_1: > 20.4	I_6: > 21.0
I_2: > 20.4	I_7: > 21.0
I_3: > 20.4	I_8: > 21.0
I_4: > 20.4	I_9: > 21.0
I_5: > 20.4	I_{10}: > 21.0
Average Index: > 20.4	Average Index: > 21.0

The Lowest Average Index: > 20.4

Performance Level : 5 (*) & (#1)

Remark:
The Minimum Requirements For Each Level:
Level 1: 1.2
Level 2: 2.5
Level 3: 5.0
Level 4: 10.0
Level 5: 20.0

* = The Performance Level Is Defined As The Lowest Average Index Values Of Two Test Specimens From The Different Gloves.

#1= In Blade Cut Resistance Test, Test Specimens Dulled The Blade To Specified Degree. A Further Test Specimen Shall Be Taken To Test Resistance To Cutting By Sharp Objects In Accordance With The Method Described In EN ISO 13997:1999, For The Assessment Of The Protection Against Cut Risks.

4 Resistance To Cutting By Sharp Objects (BS EN 388:2016, 6.3 & EN ISO 13997:1999)

Test Condition:	Temperature (20±2) ˚C; Relative Humidity (65±4)%
Test Area:	Glove Palm
Blade Sharpness Correction Factor:	0.80
Normalized Cutting Stroke Length:	25.0 mm

Result:

Cutting Force (*):	19.5 N
Performance Level (#) :	Level D

Remark: * = Calculated Force That Would Be Required To Be Applied To A Blade Of Standard Sharpness To Just Cut Through A Material In A Blade Stroke Of Length 20 mm.

= Levels Of Performance For Materials Tested With EN ISO 13997

	Level A	Level B	Level C	Level D	Level E	Level F
6.3 TDM: Cut Resistance (N)	2	5	10	15	22	30

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