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TEST REPORT

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Report No.: S170506198_1

22 May 2017

APPLICANT: NANO-METRE INDUSTRIAL LTD (C00175)

14F, ZHONGYI BUILDING, NO. 1040 CAOYANG ROAD, SHANGHAI, P. C. 200062, P. R. CHINA

Date of receipt :15 May 2017

Testing period :18 May 2017

Buyer: — :22 May 2017

Sample description: 15g carbon&nylon/HPPE/Glassfibre knitted liner coated nitrile on palm glove

Style / Article no. :DY1550S

Test(s) requested :— For CE Marking : Yes

Service :REGULAR Previous report :—
Brand / Section :— Product category :—
Season :— Product type :—

End use : PROTECTIVE GLOVES Test stage : FIRST TEST

Factory name :— Supplier name :—

Factory code :-- Exported to :USA, EUROPE

1. Conclusion:

	<u>Tests description</u>	<u>Conformity</u>
1	Abrasion resistance : 2016 : EN 388 : 2016	Level 4
2	Cut resistance : 2016 : EN 388 : 2016	Level 3
3	Cutting resistance TDM : EN ISO 13997	Level C
4	Polycyclic Aromatic Hydrocarbons : ISO/TS 16190	Pass
5	Sizing: EN 420	Pass

<u>Pass</u>: requirements met <u>Fail</u>: requirements not met <u>None</u>: no requirement for this test <u>N/A</u>: not applicable

Approved by

Henry YAN
Laboratory Supervisor

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2. Sample(s) description assigned by laboratory:

Size	Analyzed product	<u>Description</u>	Sample information
	GLOVE		
		whole glove 12"(With green binding)	
		black nitrile palm	10 pairs of gloves



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3. GLOVE/

whole glove 12 "(With green binding)

	Method	Client Requirement	Unit	Result	Conformity
(+) Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 12		12	
Total length of the glove			mm	280	

black nitrile palm: 10 pairs of gloves

	Method	Client Requirement	Unit	Result	Conformity
▲ Polycyclic Aromatic Hydrocarbons	ISO/TS 16190: 2013				Pass
Benzo(a)anthracene		<1	ppm	<0.1	
Chrysene		<1	ppm	<0.1	
Benzo(b)fluoranthene + Benzo(j) fluoranthene		<1	ppm	<0.2	
Benzo(k)fluoranthene		<1	ppm	<0.1	
Benzo(a)pyrene		<1	ppm	<0.1	
Dibenzo(a.h)anthracene		<1	ppm	<0.1	
Benzo(e)pyrene		<1	ppm	<0.1	
Cut resistance : 2016	EN 388 : 2016				
Deviation from the test method				NO	
Used consumables - Canvas				LEM 6	
Used consumables - Blade				OLFA RB45	
C1				0.8	
T1				26.7	
1C1				5.3	
l1				9.8	
C2				1.4	
T2				19.3	
1C2				4.6	
12				7.4	
C3				0.8	
Т3				28.3	
1C3				4.4	
13				11.9	
C4				1.2	
T4				21.9	

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	Method	Client Requirement	Unit	Result	Conformity
1C4		Requirement		6.3	
14				6.8	
C5				1.2	
T5				36.8	
1C5				6.2	
15				10.9	
Mean value of test piece 1				9.4	
C1 bis				0.8	
T1 bis				30.8	
2C1bis				5.8	
I1 bis				10.3	
C2 bis				1.2	
T2 bis				50.3	
2C2bis				7.4	
I2 bis				12.7	
C3 bis				1.3	
T3 bis				40.9	
2C3bis				6.9	
I3 bis				11.0	
C4 bis				0.8	
T4 bis				25.8	
2C4bis				5.8	
l4 bis				8.8	
C5 bis				0.8	
T5 bis				24.7	
2C5bis				4.7	
I5 bis				10.0	
Mean value of test piece 2				10.6	
Considered value				9.4	
Performance level				3	
Observation				First sequence Cn+1 higher than 3xCn, switch to EN13997	
Abrasion resistance : 2016	EN 388 : 2016			10 L1110001	
Deviation from the test method				NO	
used consumables - abrasive				Klingspor PL31B Grit 180	
used consumables - adhesive				3M Scotch	
Number of cycles at the hole detection				>8000	

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	Method	Client Requirement	Unit	Result	Conformity
Number of cycles at the hole detection (2)				>8000	
Number of cycles at the hole detection (3)				>8000	
Number of cycles at the hole detection (4)				>8000	
Performance level				4	
Cutting resistance TDM	EN ISO 13997:1999				
used consumables - blade				LOT 218	
Coefficient of variation			%	5.5	
Adjusted factor for blade with neoprene				0.73	
Mean cut length on neoprene for a load of 5.0 N			mm	27.4	
Normalized cutting stroke lengths			mm	17.8	
Normalized cutting stroke lengths (2)			mm	16.7	
Normalized cutting stroke lengths (3)			mm	17.2	
Normalized cutting stroke lengths (4)			mm	17.3	
Normalized cutting stroke lengths (5)			mm	18.1	
Mean normalized cutting stroke length			mm	17.4	
Cut load adjusted for a cut length of 20 mm			N	12.3	
Level Performance				С	

END OF TEST REPORT

(+)CNAS accreditation

▲ The test was carried out by external laboratory assessed as competent.

Table of Performance Level for Glove

Test Item	Performance Level						
1001110111	0##	1	2	3	4	5	
Abrasion Resistance (EN 388) Number of cycles (minimum)	<100	100	500	2000	8000		
Blade Cut Resistance (EN 388) Index (I) (minimum)	<1.2	1.2	2.5	5.0	10.0	20.0	

^{##} Performance level 0 means the glove falls below the minimum performance level for the given individual hazard

Levels of performance for materials tested with EN ISO 13997

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

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