TEST REPORT

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中国认可
国际互认
检测
TESTING
CNAS L4577

Report No.: S190607819_1

01 July 2019

APPLICANT: SHANGHAI MENGNUO INDUSTRIAL CO.LTD
上海孟诺实业有限公司
上海市金山区
JINSHAN SHANGHAI
CHINA

Date of receipt :14 June 2019
Testing period :14 June 2019
:28 June 2019

Buyer: --
Style / Article no. : Mn-GR500
Test(s) requested :
Service :REGULAR
Brand / Section :MN/孟诺
Season :--
End use :500度耐高温手套
Factory name :--
Factory code :--

For CE Marking : Yes
Previous report :--
Product category :--
Product type :--
Test stage :FIRST TEST
Supplier name :--
Exported to :--

1. Conclusion:

	Tests description	Conformity
	EN 407	
1	Abrasion resistance : 2016	**Level 3**
2	Cut resistance : 2016	**Level 3**
3	Tear strength resistance: 2016	**Level 4**
4	Puncture resistance: 2016	**Level 4**
5	Burning behaviour	**Level 4**
6	Contact heat	**Level 4**
7	Convective heat	**Level 4**

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

Approved by

Henry YAN
Laboratory Manager

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2. Sample(s) description assigned by laboratory:

Size	Analyzed product	Description	Sample information
	GLOVE		
		Whole glove	
		Palm	

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3. GLOVE/

Whole glove

	Method	Client Requirement	Unit	Result	Conformity
▲ 5.1. **Burning behaviour**	EN 407 : 2004				
Ignition 3 sec - After flame time			Seconds	0	
Ignition 3 sec - After glow time			Seconds	0	
Ignition 3 sec - Degradation due to fusion				No damage	
Ignition 15 sec - After flame time			Seconds	0	
Ignition 15 sec - After glow time			Seconds	0	
Ignition 15 sec - Degradation due to fusion				No damage	
Performance level				4	

Palm

	Method	Client Requirement	Unit	Result	Conformity
(+) **4.1. Cut resistance : 2016**	EN 388 : 2016				
Deviation from the test method				No	
used consumables - canvas				LEM 6	
used consumables - blade				OLFA RB45	
C1				1.2	
T1				60.0	
1C1				28.4	
I1				5.1	
C2				1.3	
T2				60.0	
1C2				16.8	
I2				7.6	
C3				1.1	
T3				60.0	
1C3				9.7	
I3				12.1	
C4				1.4	
T4				60.0	
1C4				19.7	

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	Method	Client Requirement	Unit	Result	Conformity
I4				6.7	
C5				1.4	
T5				60.0	
1C5				16.5	
I5				7.7	
Mean value of test piece 1				7.8	
C1 bis				1.4	
T1 bis				60.0	
2C1bis				14.3	
I1 bis				8.6	
C2 bis				1.3	
T2 bis				60.0	
2C2bis				5.3	
I2 bis				19.2	
C3 bis				1.3	
T3 bis				60.0	
2C3bis				15.3	
I3 bis				8.2	
C4 bis				1.4	
T4 bis				60.0	
2C4bis				9.5	
I4 bis				12.0	
C5 bis				1.2	
T5 bis				60.0	
2C5bis				10.9	
I5 bis				10.9	
Mean value of test piece 2				11.8	
Considered value				7.8	
Performance level				3	
Observation				First sequence Cn+1 higher than 3xCn, switch to EN13997	
(+) **4.1. Puncture resistance: 2016**	EN 388 : 2016				
Puncture resistance			N	274	

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	Method	Client Requirement	Unit	Result	Conformity
Puncture resistance (2)			N	204	
Puncture resistance (3)			N	151	
Puncture resistance (4)			N	204	
Performance level				4	
(+) **4.3. Abrasion resistance : 2016**	EN 388 : 2016				
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				2810	
Number of cycles at the hole detection (2)				2810	
Number of cycles at the hole detection (3)				2610	
Number of cycles at the hole detection (4)				2610	
Performance level				3	
(+) **4.4. Tear strength resistance: 2016**	EN 388 : 2016				
Tear strength			N	>75	
Tear strength (2)			N	>75	
Tear strength (3)			N	>75	
Tear strength (4)			N	>75	
Performance level				4	
▲ **5.2. Contact heat**	EN 407 : 2004				
Threshold time at 100 °C			Seconds	110.9	
Threshold time at 100 °C (2)			Seconds	97.5	
Threshold time at 100 °C (3)			Seconds	130.1	
Average at 100 °C			Seconds	113	
Threshold time at 250 °C			Seconds	37.8	
Threshold time at 250 °C (2)			Seconds	38.7	
Threshold time at 250 °C (3)			Seconds	39.1	
Average at 250 °C			Seconds	39	
Threshold time at 350 °C			Seconds	29.0	
Threshold time at 350 °C (2)			Seconds	31.3	
Threshold time at 350 °C (3)			Seconds	30.6	

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	Method	Client Requirement	Unit	Result	Conformity
Average at 350 °C			Seconds	30	
Threshold time at 500 °C			Seconds	21.0	
Threshold time at 500 °C (2)			Seconds	21.0	
Threshold time at 500 °C (3)			Seconds	19.6	
Average at 500 °C			Seconds	21	
Performance level				Level 4	
▲ 5.3. Convective heat	EN 407 : 2004				
Mean Heat Transfer Index (HTI)			Seconds	47	
Performance level				4	

END OF TEST REPORT

(+)CNAS accreditation

▲: The test was carried out by external accredited laboratory under their accreditation scope.

Table of Performance Level for Glove

Test Item	Performance Level					
	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
Tear Resistance (EN 388) Force (N) (minimum)	<10	10	25	50	75	---
Puncture Resistance (EN 388) Force (N) (minimum)	<20	20	60	100	150	---
Burning behaviour (EN 407) After flame time (s)	---	<=20	<=10	<=3	<=2	---
After glow time (s)	---	---	<=120	<=25	<=5	---
Contact heat (EN 407) Contact temperature Tc (°C)	---	100	250	350	500	---
Threshold time tt (s)	---	>=15	>=15	>=15	>=15	---
Convective heat (EN 407) Heat transfer index HTI (s)	---	>=4	>=7	>=10	>=18	---

Performance level 0 means the glove falls below the minimum performance level for the given individual hazard