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Report No.: S171217130_1

29 December 2017

APPLICANT: SHANGHAI SELECT SAFETY PRODUCTS CO., LTD. (C00246)
RM. 901, NEW CENTURY BUSINESS TOWER,
NO. 938 ZHONGJIANG RD, SHANGHAI,
200333, CHINA

Date of receipt : 25 Dec. 2017
Testing period : 25 Dec. 2017
: 29 Dec. 2017

Buyer: ---

Sample description: 13G grey knitted cut resistant work gloves

Style / Article no. : ST57100
Test(s) requested : ---
Service : REGULAR
Brand / Section : ---
Season : ---
End use : ---
Factory name : ---
Factory code : ---

For CE Marking : Yes

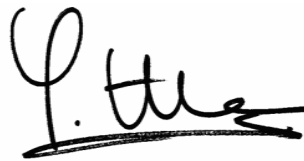
Previous report : ---
Product category : ---
Product type : ---
Test stage : FIRST TEST
Supplier name : ---
Exported to : ---

1. Conclusion:

	<u>Tests description</u>	<u>Conformity</u>
	EN 388/EN 420	
1	Abrasion resistance : 2016	Level 3
2	Cut resistance : 2016	Level 4
3	Cutting resistance TDM	Level C
4	Tear strength resistance: 2016	Level 4
5	pH - Textile (KCl solution)	Pass
6	Sizing	Pass
7	Dexterity	Level 5
8	Azo dyes - Textile	Pass
9	XRF screening	Pass

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

Approved by



Henry YAN

Laboratory Supervisor



Tony SHU

Chemical lab supervisor

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2. Sample(s) description assigned by laboratory:

<u>Size</u>	<u>Analyzed product</u>	<u>Description</u>	<u>Sample information</u>
	Glove	Whole glove 6"(with pink binding)	
		Whole glove 7"(with white binding)	
		Whole glove 8"(with green binding)	
		Whole glove 9"(with grey binding)	
		Whole glove 10"(with yellow binding)	
		Whole glove 11"(with brown binding)	
		black/white UHMWPE/glassfiber/nylon/span dex palm	13 pairs of gloves
		black/white UHMWPE/glassfiber/nylon/span dex/elastic cuff	



171217130

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3. Glove/

Whole glove 6" (with pink binding)

	Method	Client Requirement	Unit	Result	Conformity
(+) 5.1.2. Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 6		6	
Total length of the glove			mm	227	
(+) 5.2. Dexterity	EN 420:2003+A1:2009				
Smallest diameter of the pin picked up			mm	5.0	
Performance Level				5	

Whole glove 7" (with white binding)

	Method	Client Requirement	Unit	Result	Conformity
(+) 5.1.2. Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 7		7	
Total length of the glove			mm	239	

Whole glove 8" (with green binding)

	Method	Client Requirement	Unit	Result	Conformity
(+) 5.1.2. Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 8		8	
Total length of the glove			mm	245	

Whole glove 9" (with grey binding)

	Method	Client Requirement	Unit	Result	Conformity
(+) 5.1.2. Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 9		9	
Total length of the glove			mm	256	

Whole glove 10" (with yellow binding)

	Method	Client Requirement	Unit	Result	Conformity

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	Method	Client Requirement	Unit	Result	Conformity
(+) 5.1.2. Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 10		10	
Total length of the glove			mm	267	

Whole glove 11" (with brown binding)

	Method	Client Requirement	Unit	Result	Conformity
(+) 5.1.2. Sizing	EN 420:2003+A1:2009				Pass
Size		≥ 11		11	
Total length of the glove			mm	277	

black/white UHMWPE/glassfiber/nylon/spandex palm : 13 pairs of gloves

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.1. Abrasion resistance : 2016	EN 388 : 2016				
Deviation from the test method used consumables - abrasive				No Klingspor PL31B Grit 180	
used consumables - adhesive				3M Scotch	
Number of cycles at the hole detection				3000	
Number of cycles at the hole detection (2)				5500	
Number of cycles at the hole detection (3)				4800	
Number of cycles at the hole detection (4)				7800	
Performance level				3	
(+) 4.1. Cut resistance : 2016	EN 388 : 2016				
Deviation from the test method used consumables - canvas				No LEM 6	
used consumables - blade				OLFA RB45	
C1				1.3	
T1				60.0	
1C1				6.6	
I1				16.2	
C2				1.2	
T2				60.0	

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	Method	Client Requirement	Unit	Result	Conformity
1C2				7.3	
I2				15.1	
C3				1.0	
T3				60.0	
1C3				7.0	
I3				16.0	
C4				1.2	
T4				60.0	
1C4				6.4	
I4				16.8	
C5				0.8	
T5				60.0	
1C5				7.0	
I5				16.4	
Mean value of test piece 1				16.1	
C1 bis				1.2	
T1 bis				60.0	
2C1bis				7.3	
I1 bis				15.1	
C2 bis				1.1	
T2 bis				60.0	
2C2bis				5.6	
I2 bis				18.9	
C3 bis				1.3	
T3 bis				60.0	
2C3bis				6.4	
I3 bis				16.6	
C4 bis				1.2	
T4 bis				60.0	
2C4bis				6.2	
I4 bis				17.2	
C5 bis				1.3	
T5 bis				60.0	
2C5bis				5.0	

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	Method	Client Requirement	Unit	Result	Conformity
I5 bis				20.0	
Mean value of test piece 2				17.6	
Considered value				16.1	
Performance level				4	
Observation				First sequence Cn+1 higher than 3xCn, switch to EN13997	
4.1. Cutting resistance TDM	EN ISO 13997:1999				
used consumables - blade				Lot-134	
Coefficient of variation			%	4.4	
Adjusted factor for blade with neoprene				0.72	
Normalized cutting stroke lengths			mm	13.3	
Normalized cutting stroke lengths (2)			mm	13.4	
Normalized cutting stroke lengths (3)			mm	28.0	
Normalized cutting stroke lengths (4)			mm	16.5	
Normalized cutting stroke lengths (5)			mm	25.5	
Mean normalized cutting stroke length			mm	19.3	
Cut load adjusted for a cut length of 20 mm			N	11.7	
Level Performance				C	
(+) 4.1. 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	
(+) 4.3.2. pH - Textile (KCl solution)	EN ISO 3071:2006				Pass
pH value		3.5< - <9.5		6.4	
▲ Azo dyes - Textile	EN 14362-1 : 2012				Pass
Azo dyes		<30	mg/kg	<5	
▲ XRF screening	ASTM F 2617-15				Pass
Sn (Tin)		<150	ppm	<150	

black/white UHMWPE/glassfiber/nylon/spandex/elastic cuff

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	Method	Client Requirement	Unit	Result	Conformity
(+) 4.3.2. pH - Textile (KCl solution) pH value	EN ISO 3071:2006	3.5< - <9.5		6.8	Pass
▲ Azo dyes - Textile Azo dyes	EN 14362-1 : 2012	<30	mg/kg	<5	Pass

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					
	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	---
Dexterity (EN 420) Diameter of pin (in mm)	---	11.0	9.5	8.0	6.5	5.0

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 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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