

3F, Building Block 2, No. 3400 Gonghexin Road,
Jing'an District - Shanghai 200436, P.R. CHINA
上海市静安区共和新路3400号2幢3层
Tél. : +86 21 68 55 50 32
Fax : +86 21 68 55 50 33
E-mail : ctcshanghai@ctcgroupe.com

TEST REPORT

Page 1/9

Report No.: S230605439_1

29 June 2023

APPLICANT:

The content of this section is
manufacturer's information

Date of receipt : 16 June 2023
Testing period : 19 June 2023
: 29 June 2023

Buyer: --

Sample description: 13 gauge carbon+polyester liner with PU palm coated

Style / Article no. : SN815

Test(s) requested : --

Service : REGULAR

Brand / Section : --

Season : --

End use : --

Factory name : --

Factory code : --

Previous report : --

Product category : --

Product type : --

Test stage : FIRST TEST

Supplier name : --

Exported to : --

1. Conclusion:

	Tests description	Conformity
	EN 388:2016+A1:2018	
1	Abrasion resistance: 2016	Level 3
2	Cut resistance: 2016	Level 1
3	Tear strength resistance: 2016	Level 3
4	Puncture resistance: 2016	Level 1

	Tests description	Conformity
	EN ISO 21420:2020	
5	pH - Textile (KCl solution)	Pass
6	Aromatic amines derived from azo colorants	Pass
7	Dimethylformamide (DMF/DMFo/DMFa)	Pass
8	Polycyclic Aromatic Hydrocarbons (8)	Pass
9	Vertical resistance of material	Pass
10	Dexterity	Level 5
11	XRF screening	Pass
12	XRF screening (Tin)	Pass
13	Phthalates	Pass

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

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample(s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.



TEST REPORT

Page 2/9

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

Approved by

Henry YAN 严滨
Laboratory Manager

Tony SHU 束永玮
Technical Supervisor for Chemical Lab



TEST REPORT

Page 3/9

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

2. Sample(s) description assigned by laboratory:

<u>Size</u>	<u>Analyzed product</u>	<u>Description</u>	<u>Sample information</u>
	GLOVE	<p>Whole glove</p> <p>white PU(grey/white carbon/polyester) palm</p> <p>white PU(grey/white carbon/polyester) palm</p> <p>grey/white carbon/polyester back</p> <p>grey/white carbon/polyester/elastic cuff</p>	



230605439

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample(s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.



TEST REPORT

Page 4/9

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

3. GLOVE/

Whole glove

	Method	Client Requirement	Unit	Result	Conformity
▲ 4.2. Dimethylformamide (DMF/DMFo/DMFa) Dimethylformamide Dimethylformamide (2) Dimethylformamide - average	EN 16778: 2016		mg/kg mg/kg mg/kg	826.0 855.4 840.7	Pass
(+) 5.2. Dexterity Smallest diameter of pin fulfilling test condition Smallest diameter of pin fulfilling test condition (2) Smallest diameter of pin fulfilling test condition (3) Smallest diameter of pin fulfilling test condition (4) Performance level	EN ISO 21420: 2020	<1000	mm mm mm mm	5.0 5.0 5.0 5.0	

white PU(grey/white carbon/polyester) palm

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.1. Abrasion resistance: 2016 used consumables - abrasive used consumables - adhesive Number of cycles at the hole detection Number of cycles at the hole detection (2) Number of cycles at the hole detection (3) Number of cycles at the hole detection (4) Performance level	EN 388:2016 + A1:2018			Klingspor PL31B Grit 180 3M Scotch 5900 5900 6600 6600 3	
(+) 4.1. Cut resistance: 2016 Deviation from the test method used consumables - canvas used consumables - blade	EN 388:2016 + A1:2018			No LEM 6 OLFA RB45	

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample(s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.



TEST REPORT

Page 5/9

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

	Method	Client Requirement	Unit	Result	Conformity
C1				1.2	
T1				0.2	
1C1				1.2	
I1				1.2	
C2				1.2	
T2				0.2	
1C2				1.2	
I2				1.2	
C3				1.2	
T3				0.2	
1C3				1.2	
I3				1.2	
C4				1.2	
T4				0.2	
1C4				1.2	
I4				1.2	
C5				1.2	
T5				0.2	
1C5				1.2	
I5				1.2	
Mean value of test piece 1				1.2	
C1 bis				1.2	
T1 bis				0.2	
2C1bis				1.3	
I1 bis				1.2	
C2 bis				1.3	
T2 bis				0.3	
2C2bis				1.4	
I2 bis				1.2	
C3 bis				1.4	
T3 bis				0.5	
2C3bis				1.5	
I3 bis				1.3	
C4 bis				1.5	

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample (s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.



TEST REPORT

Page 6/9

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

	Method	Client Requirement	Unit	Result	Conformity
T4 bis				0.5	
2C4bis				1.7	
I4 bis				1.3	
C5 bis				1.7	
T5 bis				0.5	
2C5bis				1.7	
I5 bis				1.3	
Mean value of test piece 2				1.3	
Considered value				1.2	
Performance level				1	
Observation				No comment	
(+) 4.1. Tear strength resistance: 2016	EN 388:2016 + A1:2018				
Tear strength			N	>75	
Tear strength (2)			N	64	
Tear strength (3)			N	60	
Tear strength (4)			N	66	
Performance level				3	
(+) 4.1. Puncture resistance: 2016	EN 388:2016 + A1:2018				
Puncture resistance			N	27	
Puncture resistance (2)			N	29	
Puncture resistance (3)			N	32	
Puncture resistance (4)			N	32	
Performance level				1	

white PU(grey/white carbon/polyester) palm

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass
pH value		3.5< - <9.5		6.5	
▲ 4.2. Polycyclic Aromatic Hydrocarbons (8)	ISO 16190:2021				Pass
Benzo(a)anthracene		<1	mg/kg	<0.2	
Chrysene		<1	mg/kg	<0.2	

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample(s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.



TEST REPORT

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

	Method	Client Requirement	Unit	Result	Conformity
Benzo(b)fluoranthene/ Benz[e]acephenanthrylene		<1	mg/kg	<0.2	
Benzo(k)fluoranthene		<1	mg/kg	<0.2	
Benzo(a)pyrene/ Benzo[def]chrysene		<1	mg/kg	<0.2	
Dibenzo(a,h)anthracene		<1	mg/kg	<0.2	
Benzo(e)pyrene		<1	mg/kg	<0.2	
Benzo(j)fluoranthene		<1	mg/kg	<0.2	
<p>● 4.4.1. Vertical resistance of material</p> <p>Pre-conditioning</p> <p>Test apparatus</p> <p>Number of test piece(s)</p> <p>Applied voltage</p> <p>Vertical resistance (1)</p> <p>Vertical resistance (2)</p> <p>Vertical resistance (3)</p> <p>Vertical resistance (4)</p> <p>Vertical resistance (5)</p>	EN 16350: 2014			<p>(23±1)°C,(25±5)%RH for 48H</p> <p>Smaller specimen (EN 61340-2-3)</p> <p>5</p> <p>V</p> <p>100</p> <p>1.04</p> <p>1.27</p> <p>1.17</p> <p>1.52</p> <p>1.48</p>	Pass
<div style="border: 2px solid red; padding: 5px; width: fit-content;"> <p>Standard EN 16350 requirement : < 100 Mohms = < 1X10⁸</p> <p>Result Test : Minimum 1.04 Mohms = 1.04x10⁶ Maximum 1.52 Mohms = 1.52x10⁶ Average 1.3 Mohms = 1.3x10⁶</p> </div>					
(+) XRF screening	ASTM F2617 – 15				Pass
Cd (Cadmium)		<100	ppm	<100	
XRF screening (Tin)	ASTM F2617 – 15				Pass
Sn (Tin)		<150	ppm	<150	
(+) Phthalates	ISO 16181-1:2021				Pass
BBP . Butyl benzyl phthalate		<0.1	%	<0.0020	
DBP . Di-butyl phthalate		<0.1	%	<0.0020	
DEHP . Di-(2-ethylhexyl) phthalate		<0.1	%	<0.0020	
DIBP . Di-iso-butyl phthalate		<0.1	%	<0.0020	

grey/white carbon/polyester back

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass



TEST REPORT

Page 8/9

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

	Method	Client Requirement	Unit	Result	Conformity
pH value		3.5< - <9.5		6.6	
(+) 4.2. Aromatic amines derived from azo colorants	ISO 14362-1:2017 (combined extraction)				Pass
Accessible with fibre extraction		<30	mg/kg	<5	
Accessible without fibre extraction		<30	mg/kg	<5	
● 4.4.1. Vertical resistance of material	EN 16350: 2014				Pass
Pre-conditioning				(23±1)°C,(25±5)%RH for 48H	
Test apparatus				Smaller specimen (EN 61340-2-3)	
Number of test piece(s)				5	
Applied voltage			V	10	
Vertical resistance (1)		<100	Mohms	0.253	
Vertical resistance (2)		<100	Mohms	0.385	
Vertical resistance (3)		<100	Mohms	0.413	
Vertical resistance (4)		<100	Mohms	0.348	
Vertical resistance (5)		<100	Mohms	0.689	

grey/white carbon/polyester/elastic cuff

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass
pH value		3.5< - <9.5		6.7	
(+) 4.2. Aromatic amines derived from azo colorants	ISO 14362-1:2017 (combined extraction)				Pass
Accessible with fibre extraction		<30	mg/kg	<5	
Accessible without fibre extraction		<30	mg/kg	<5	
● 4.4.1. Vertical resistance of material	EN 16350: 2014				Pass
Pre-conditioning				(23±1)°C,(25±5)%RH for 48H	
Test apparatus				Smaller specimen (EN 61340-2-3)	
Number of test piece(s)				5	
Applied voltage			V	10	

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample(s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.



TEST REPORT

Report No.: S230605439_1

29 June 2023

APPLICANT: The content of this section is manufacturer's information

	Method	Client Requirement	Unit	Result	Conformity
Vertical resistance (1)		<100	Mohms	0.256	
Vertical resistance (2)		<100	Mohms	0.548	
Vertical resistance (3)		<100	Mohms	0.435	
Vertical resistance (4)		<100	Mohms	0.552	
Vertical resistance (5)		<100	Mohms	0.442	

END OF TEST REPORT

(+)CNAS accreditation

- ▲: The test was carried out by external accredited laboratory under their accreditation scope.
- : The test was carried out by external accredited laboratory, not within their accreditation scope.

Unless otherwise specified, the physical test items in this report performed in CTC Shanghai lab were conditioned and tested in the environment of T 23±2°C / RH 50±4%.

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	---
Finger dexterity (EN ISO 21420) Smallest diameter of pin fulfilling test conditions (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

The report is issued by CTC Shanghai under its General Conditions printed overleaf. The results shown in this report refer only to the sample (s) tested. Except by special arrangement, the test items will not be retained by CTC Shanghai for more than 3 months. The test report shall not be reproduced, except in full, without the written approval of the testing laboratory.

To declare the conformity to the requirement, the uncertainty of measurement, associated to the test results, has not been taken into account.

The report is for internal reference only and not for social proof use.

