

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

# TEST REPORT

Page 1/8

Report No.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

PO BOX 123618, A2-89, SAIF ZONE,  
SHARJAH UAE  
123618 SHARJAH  
UNITED ARAB EMIRATES

Date of receipt : 19 Jan. 2023

Testing period : 19 Jan. 2023

: 29 Jan. 2023

Buyer: ---

**Sample description:** ISU AIR SHIELD GLOVES

Reference no. : ISU4131AS

Style / Article no. : ISU4131AS

Test(s) requested : ---

Service : REGULAR

Brand / Section : ISHIELDU

Season : ---

End use : ---

Factory name : ---

Factory code : ---

Revision : Reivse applicant name & Amend sample description.

Previous report : ---

Product category : ---

Product type : ---

Test stage : FIRST TEST

Supplier name : ---

Exported to : ---

## 1. Conclusion:

	<u>Tests description</u>	<u>Conformity</u>
	<b>EN 388:2016+A1:2018</b>	
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

	<u>Tests description</u>	<u>Conformity</u>
	<b>ISO 21420:2020</b>	
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	Dexterity	Level 5
10	Dimethylfumarate (DMFu)	Pass
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

This test report in version S230100486\_2 supersedes the report S230100486\_1

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 2/8

Report No.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

Approved by

Henry YAN 严滨  
Laboratory Manager

Tony SHU 束永玮  
Technical Supervisor for Chemical Lab

This test report in version S230100486\_2 supersedes the report S230100486\_1

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 3/8

Report No.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

## 2. Sample(s) description assigned by laboratory:

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



230100486-1



230100486-2

This test report in version S230100486\_2 supersedes the report S230100486\_1

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 4/8

Report No.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

## 3. GLOVE/

Whole glove

	Method	Client Requirement	Unit	Result	Conformity
<b>▲ 4.2. Dimethylformamide (DMF/DMFo/DMFa)</b>	EN 16778: 2016				Pass
Dimethylformamide			mg/kg	62.4	
Dimethylformamide (2)			mg/kg	51.4	
Dimethylformamide - average		<1000	mg/kg	56.9	
<b>(+) 5.2. Dexterity</b>	ISO 21420: 2020				
Smallest diameter of pin fulfilling test condition			mm	5.0	
Smallest diameter of pin fulfilling test condition (2)			mm	5.0	
Smallest diameter of pin fulfilling test condition (3)			mm	5.0	
Smallest diameter of pin fulfilling test condition (4)			mm	5.0	
Performance level				5	

grey (black) PU (polyester) palm

	Method	Client Requirement	Unit	Result	Conformity
<b>(+) 4.1. Abrasion resistance: 2016</b>	EN 388:2016 + A1:2018				
used consumables - abrasive				Klingspor PL31B Grit 180	
used consumables - adhesive				3M Scotch	
Number of cycles at the hole detection				3500	
Number of cycles at the hole detection (2)				3700	
Number of cycles at the hole detection (3)				3300	
Number of cycles at the hole detection (4)				3900	
Performance level				3	
<b>(+) 4.1. Cut resistance: 2016</b>	EN 388:2016 + A1:2018				
Deviation from the test method				No	
used consumables - canvas				LEM 6	
used consumables - blade				OLFA RB45	
C1				0.9	

This test report in version S230100486\_2 supersedes the report S230100486\_1

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.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

	Method	Client Requirement	Unit	Result	Conformity
T1				0.3	
1C1				1.3	
I1				1.3	
C2				1.3	
T2				0.4	
1C2				1.3	
I2				1.3	
C3				1.3	
T3				0.4	
1C3				1.3	
I3				1.3	
C4				1.3	
T4				0.4	
1C4				1.3	
I4				1.3	
C5				1.3	
T5				0.4	
1C5				1.3	
I5				1.3	
Mean value of test piece 1				1.3	
C1 bis				1.3	
T1 bis				0.3	
2C1bis				1.3	
I1 bis				1.2	
C2 bis				1.3	
T2 bis				0.3	
2C2bis				0.8	
I2 bis				1.3	
C3 bis				0.8	
T3 bis				0.4	
2C3bis				1.3	
I3 bis				1.4	
C4 bis				1.3	
T4 bis				0.3	

This test report in version S230100486\_2 supersedes the report S230100486\_1

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 6/8

Report No.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

	Method	Client Requirement	Unit	Result	Conformity
2C4bis				1.3	
I4 bis				1.2	
C5 bis				1.3	
T5 bis				0.3	
2C5bis				1.3	
I5 bis				1.2	
Mean value of test piece 2				1.3	
Considered value				1.3	
Performance level				1	
Observation				No comment	
<b>(+) 4.1. Tear strength resistance: 2016</b>	EN 388:2016 + A1:2018				
Tear strength			N	66	
Tear strength (2)			N	59	
Tear strength (3)			N	>75	
Tear strength (4)			N	>75	
Performance level				3	
<b>(+) 4.1. Puncture resistance: 2016</b>	EN 388:2016 + A1:2018				
Puncture resistance			N	37	
Puncture resistance (2)			N	35	
Puncture resistance (3)			N	38	
Puncture resistance (4)			N	41	
Performance level				1	

grey(black) PU(polyester) palm

	Method	Client Requirement	Unit	Result	Conformity
<b>(+) 4.2. pH - Textile (KCl solution)</b>	ISO 3071:2020				Pass
pH value		3.5< - <9.5		7.4	
<b>▲ 4.2. Polycyclic Aromatic Hydrocarbons (8)</b>	ISO 16190:2021				Pass
Benzo(a)anthracene		<1	mg/kg	<0.2	
Chrysene		<1	mg/kg	<0.2	

This test report in version S230100486\_2 supersedes the report S230100486\_1

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 7/8

Report No.: S230100486\_2

02 February 2023

 APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
 (FZE) (C39230)

	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	
<b>▲ Dimethylfumarate (DMFu)</b>	ISO 16186:2021				Pass
Dimethylfumarate		<0.1	mg/kg	<0.1	
<b>(+) XRF screening</b>	ASTM F2617 – 15				Pass
Cd (Cadmium)		<100	ppm	<100	
<b>XRF screening (Tin)</b>	ASTM F2617 – 15				Pass
Sn (Tin)		<150	ppm	<150	
<b>▲ Phthalates</b>	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	

black polyester back

	Method	Client Requirement	Unit	Result	Conformity
<b>(+) 4.2. pH - Textile (KCl solution)</b>	ISO 3071:2020				Pass
pH value		3.5< - <9.5		7.0	
<b>▲ 4.2. Aromatic amines derived from azo colorants</b>	ISO 14362-1:2017 (combined extraction)				Pass
Accessible with fibre extraction		<30	mg/kg	<5	
Accessible without fibre extraction		<30	mg/kg	<5	

black polyester/elastic cuff

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

This test report in version S230100486\_2 supersedes the report S230100486\_1

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 8/8

Report No.: S230100486\_2

02 February 2023

APPLICANT: RAJA INTERNATIONAL GENERAL TRADING  
(FZE) (C39230)

	Method	Client Requirement	Unit	Result	Conformity
pH value		3.5< - <9.5		7.1	
<b>▲ 4.2. Aromatic amines derived from azo colorants</b>	ISO 14362-1:2017 (combined extraction)				Pass
Accessible with fibre extraction		<30	mg/kg	<5	
Accessible without fibre extraction		<30	mg/kg	<5	

## END OF TEST REPORT

(+)CNAS accreditation

▲: The test was carried out by external accredited laboratory under 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
<b>Abrasion Resistance (EN 388)</b> Number of cycles (minimum)	<100	100	500	2000	8000	---
<b>Blade Cut Resistance (EN 388)</b> Index (I) (minimum)	<1.2	1.2	2.5	5.0	10.0	20.0
<b>Tear Resistance (EN 388)</b> Force (N) (minimum)	<10	10	25	50	75	---
<b>Puncture Resistance (EN 388)</b> Force (N) (minimum)	<20	20	60	100	150	---
<b>Finger dexterity (EN ISO 21420)</b> 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

This test report in version S230100486\_2 supersedes the report S230100486\_1

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.

