

TEST REPORT

Page 1/10

Report No.: S230100483_3

20 April 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 CUT-SHIELD GLOVES

Reference no. : ISU4X42CT

Style / Article no. : ISU4X42CT

Test(s) requested : ---

Service : REGULAR

Brand / Section : ISHIELDU

Season : ---

End use : ---

Factory name : ---

Factory code : ---

Revision : Amend sample information.

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 4
2	Cut resistance: 2016	Level 4
3	Cutting resistance TDM	Level C
4	Tear strength resistance: 2016	Level 4
5	Puncture resistance: 2016	Level 3

	Tests description	Conformity
	ISO 21420:2020	
6	pH - Textile (KCl solution)	Pass
7	Aromatic amines derived from azo colorants	Pass
8	Dimethylformamide (DMF/DMFo/DMFa)	Pass
9	Polycyclic Aromatic Hydrocarbons (8)	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

This test report in version S230100483_3 supersedes the report S230100483_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

Page 2/10

Report No.: S230100483_3

20 April 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 S230100483_3 supersedes the report S230100483_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.: S230100483_3

20 April 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	<p>Whole glove</p> <p>grey(black/white) PU(HPPE(high performance polyethylene)/nylon/spandex/glass fiber) palm</p> <p>grey(black/white) PU(HPPE(high performance polyethylene)/nylon/spandex/glass fiber) palm</p> <p>black/white HPPE(high performance polyethylene)/nylon/spandex/glass fiber back</p> <p>black/white HPPE(high performance polyethylene)/nylon/spandex/glass fiber/elastic cuff</p> <p>black nitrile thumb crotch</p>	



230100483-1



230100483-2

This test report in version S230100483_3 supersedes the report S230100483_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.: S230100483_3

20 April 2023

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

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	12.7	Pass
			mg/kg	18.2	
		<1000	mg/kg	15.5	
(+) 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	ISO 21420: 2020		mm	5.0	
			mm	5.0	
			mm	5.0	
			mm	5.0	
				5	

grey (black/white) PU (HPPE (high performance polyethylene)/nylon/spandex/ glass fiber) palm

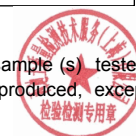
	Method	Client Requirement	Unit	Result	Conformity
(+) 4.1. Abrasion resistance: 2016 used consumables - abrasive used consumables - adhesive Number of cycles at the hole detection Number of cycles at the hole detection (2) Number of cycles at the hole detection (3) Number of cycles at the hole detection (4) Performance level	EN 388:2016 + A1:2018			Klingspor PL31B Grit 180 3M Scotch >8000 >8000 >8000 >8000 4	
(+) 4.1. Cut resistance: 2016 Deviation from the test method used consumables - canvas used consumables - blade C1 T1	EN 388:2016 + A1:2018			No LEM 6 OLFA RB45 1.2 60.0	

This test report in version S230100483_3 supersedes the report S230100483_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.: S230100483_3

20 April 2023

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

	Method	Client Requirement	Unit	Result	Conformity
1C1				7.7	
I1				14.5	
C2				1.3	
T2				60.0	
1C2				5.4	
I2				18.9	
C3				1.2	
T3				60.0	
1C3				6.5	
I3				16.6	
C4				1.2	
T4				60.0	
1C4				6.2	
I4				17.2	
C5				1.4	
T5				60.0	
1C5				5.8	
I5				17.7	
Mean value of test piece 1				17.0	
C1 bis				1.3	
T1 bis				60.0	
2C1bis				7.3	
I1 bis				15.0	
C2 bis				1.3	
T2 bis				60.0	
2C2bis				6.6	
I2 bis				16.2	
C3 bis				1.4	
T3 bis				60.0	
2C3bis				5.6	
I3 bis				18.1	
C4 bis				1.4	
T4 bis				60.0	
2C4bis				5.8	

This test report in version S230100483_3 supersedes the report S230100483_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.

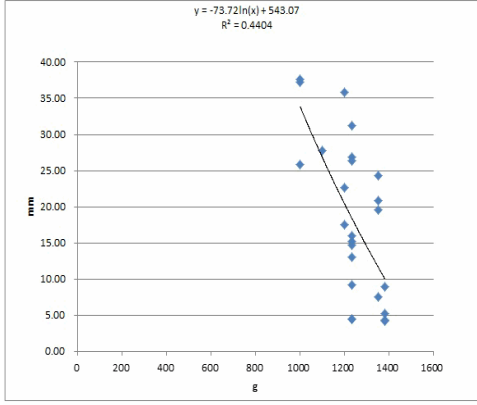


TEST REPORT

Report No.: S230100483_3

20 April 2023

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

	Method	Client Requirement	Unit	Result	Conformity
I4 bis				17.7	
C5 bis				1.4	
T5 bis				60.0	
2C5bis				6.3	
I5 bis				16.6	
Mean value of test piece 2				16.7	
Considered value				16.7	
Performance level				4	
Observation				First sequence Cn+1 higher than 3xCn, switch to EN13997	
(+) 4.1. Cutting resistance TDM	ISO 13997:1999				
used consumables - blade				202200360	
Coefficient of variation			%	4.4	
Adjusted factor for blade with neoprene				0.83	
Normalized cutting stroke lengths			mm	9.2	
Normalized cutting stroke lengths (2)			mm	15.2	
Normalized cutting stroke lengths (3)			mm	13.1	
Normalized cutting stroke lengths (4)			mm	14.8	
Normalized cutting stroke lengths (5)			mm	15.9	
Mean normalized cutting stroke length			mm	13.6	
Cut load adjusted for a cut length of 20 mm			N	11.8	
Level Performance				Level C	
					

This test report in version S230100483_3 supersedes the report S230100483_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.: S230100483_3

20 April 2023

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

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.1. Tear strength resistance: 2016	EN 388:2016 + A1:2018				
Tear strength			N	>75	
Tear strength (2)			N	>75	
Tear strength (3)			N	>75	
Tear strength (4)			N	>75	
Performance level				4	
(+) 4.1. Puncture resistance: 2016	EN 388:2016 + A1:2018				
Puncture resistance			N	129	
Puncture resistance (2)			N	178	
Puncture resistance (3)			N	135	
Puncture resistance (4)			N	128	
Performance level				3	

grey (black/white) PU (HPPE (high performance polyethylene)/nylon/spandex/ glass fiber) palm

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass
pH value		3.5< - <9.5		7.0	
▲ 4.2. Polycyclic Aromatic Hydrocarbons (8)	ISO 16190:2021				Pass
Benzo(a)anthracene		<1	mg/kg	<0.2	
Chrysene		<1	mg/kg	<0.2	
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	
(+) XRF screening	ASTM F2617 – 15				Pass
Cd (Cadmium)		<100	ppm	<100	
XRF screening (Tin)	ASTM F2617 – 15				Pass
Sn (Tin)		<150	ppm	<150	

This test report in version S230100483_3 supersedes the report S230100483_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

Page 8/10

Report No.: S230100483_3

20 April 2023

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

	Method	Client Requirement	Unit	Result	Conformity
▲ 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	

black/white HPPE(high performance polyethylene)/nylon/spandex/ glass fiber back

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass
pH value		3.5< - <9.5		9.4	
▲ 4.2. Aromatic amines derived from azo colorants	ISO 14362-1:2017 (w/o extraction)				Pass
Accessible without fibre extraction		<30	mg/kg	<5	

black/white HPPE(high performance polyethylene)/nylon/spandex/ glass fiber/elastic cuff

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass
pH value		3.5< - <9.5		6.8	
▲ 4.2. Aromatic amines derived from azo colorants	ISO 14362-1:2017 (w/o extraction)				Pass
Accessible without fibre extraction		<30	mg/kg	<5	

black nitrile thumb crotch

	Method	Client Requirement	Unit	Result	Conformity
(+) 4.2. pH - Textile (KCl solution)	ISO 3071:2020				Pass
pH value		3.5< - <9.5		7.0	
▲ 4.2. Polycyclic Aromatic Hydrocarbons (8)	ISO 16190:2021				Pass
Benzo(a)anthracene		<1	mg/kg	<0.2	
Chrysene		<1	mg/kg	<0.2	
Benzo(b)fluoranthene/ Benz[e]acephenanthrylene		<1	mg/kg	<0.2	

This test report in version S230100483_3 supersedes the report S230100483_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.: S230100483_3

20 April 2023

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

	Method	Client Requirement	Unit	Result	Conformity
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	
(+) XRF screening	ASTM F2617 – 15				Pass
Cd (Cadmium)		<100	ppm	<100	
▲ 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	

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
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

This test report in version S230100483_3 supersedes the report S230100483_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

Page 10/10

Report No.: S230100483_3

20 April 2023

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

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

This test report in version S230100483_3 supersedes the report S230100483_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.

