

TEST REPORT

Report No.: S220704130_1

02 August 2022

APPLICANT:

*The content of this section is
 manufacturer's information*

Date of receipt : 25 July 2022
 Testing period : 02 Aug. 2022
 : 02 Aug. 2022

Buyer: —

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

Style / Article no. : SN-815

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 ISO 21420:2020	
1	Vertical resistance of material	Pass

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

Approved by



Henry YAN 严滨
 Laboratory Manager



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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	white(grey) PU(carbon/polyester) palm grey carbon/polyester back grey carbon/polyester/elastics cuff	



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3. GLOVE/

white(grey) PU(carbon/polyester) palm

	Method	Client Requirement	Unit	Result	Conformity
<ul style="list-style-type: none"> 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	0.845	
Vertical resistance (2)		<100	Mohms	0.648	
Vertical resistance (3)		<100	Mohms	0.652	
Vertical resistance (4)		<100	Mohms	0.755	
Vertical resistance (5)		<100	Mohms	0.748	

grey carbon/polyester back

	Method	Client Requirement	Unit	Result	Conformity
<ul style="list-style-type: none"> 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	0.129	
Vertical resistance (2)		<100	Mohms	0.153	
Vertical resistance (3)		<100	Mohms	0.282	
Vertical resistance (4)		<100	Mohms	0.235	
Vertical resistance (5)		<100	Mohms	0.228	

grey carbon/polyester/elastics cuff

	Method	Client Requirement	Unit	Result	Conformity
<ul style="list-style-type: none"> 4.4.1. Vertical resistance of material 	EN 16350: 2014				Pass

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

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	Method	Client Requirement	Unit	Result	Conformity
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	0.544	
Vertical resistance (2)		<100	Mohms	0.348	
Vertical resistance (3)		<100	Mohms	0.557	
Vertical resistance (4)		<100	Mohms	0.528	
Vertical resistance (5)		<100	Mohms	0.447	

END OF TEST REPORT

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



Test Report

No. SHAEC2024949801

Date: 16 Dec 2020

Page 1 of 8

M I SIMI (CHINA) PRECISION MACHINERY TRADE CO., LTD.

BUILDING 10,999 HUANCHENG NORTH ROAD,FENGXIAN DISTRICT SHANGHAI CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : carbon liner coated with PU

SGS Job No. : SP20-249498 - SUZ
Client Ref. Information : MTPTF/MTPHTF/MTPTZ/MTPHTZ
Country of Origin : CHINA
Date of Sample Received : 14 Dec 2020
Testing Period : 14 Dec 2020 - 16 Dec 2020
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Tom Ni

Tom Ni
Approved Signatory

scan to see the report



SHAEC2024949801



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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	SHA20-249498.001	Gray glove

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method : With reference to IEC 62321-4:2013+AMD1:2017, IEC62321-5:2013, IEC62321-7-2:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND



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Test Item(s)	Limit	Unit	MDL	001
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Di-butyl Phthalate (DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND
Di-2-Ethyl Hexyl Phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND

Notes :

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series
https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25
- (2) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall not apply to toys which are already subject to the restriction of DEHP, BBP, DBP and DIBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.



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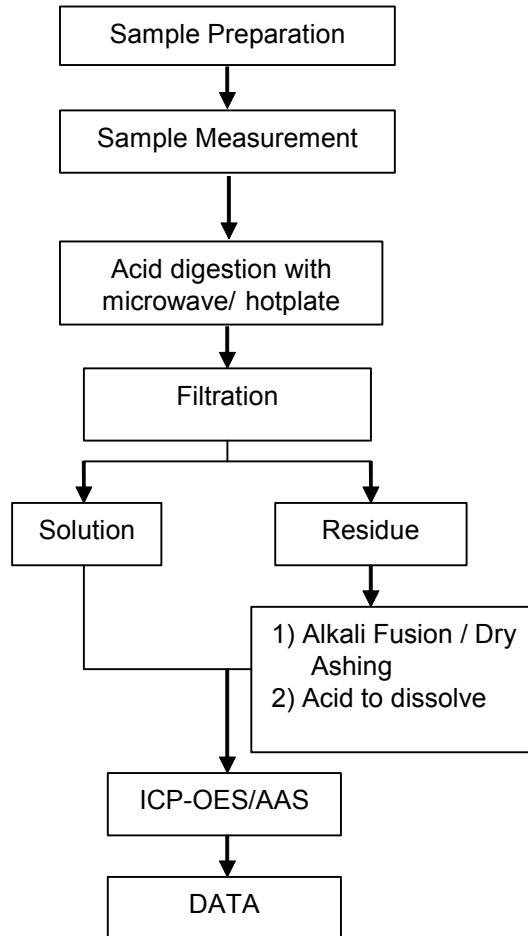
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Elements (IEC62321) Testing Flow Chart

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

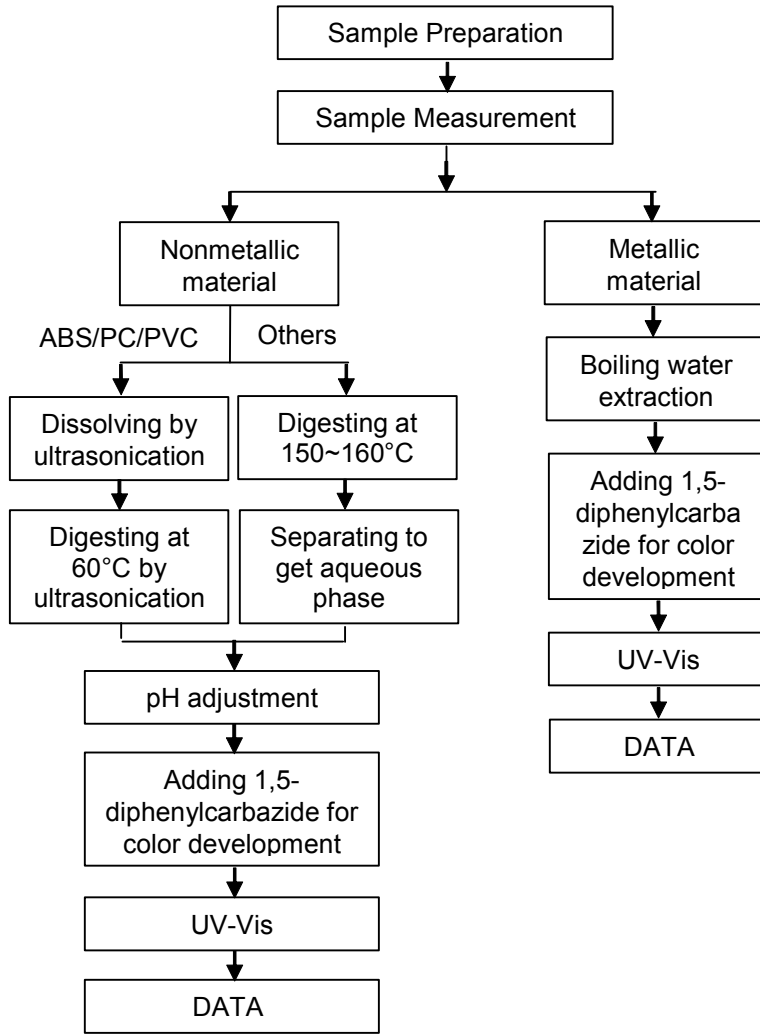


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Hexavalent Chromium (Cr(VI)) Testing Flow Chart

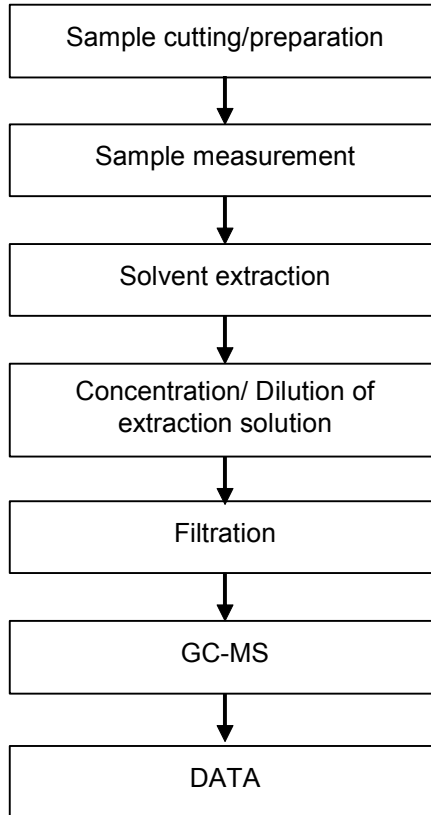


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PBBs/PBDEs Testing Flow Chart

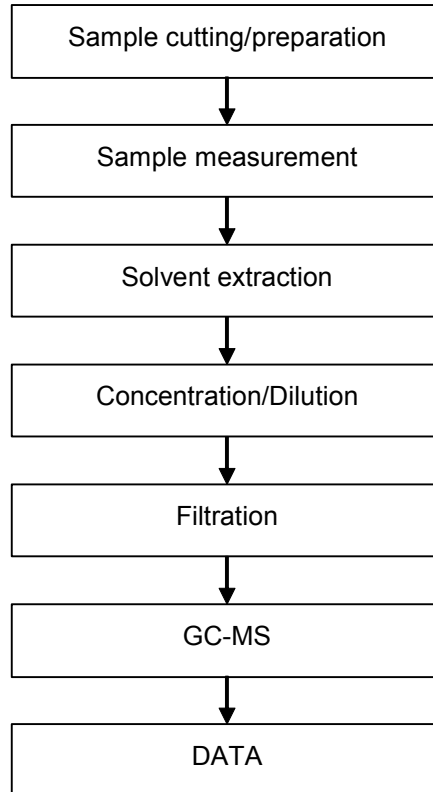


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Phthalates Testing Flow Chart



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SAFETY DATA SHEET(MSDS) ESD GLOVE

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Misumi ESD Gloves.

Company Name: MISUMI(THAILAND) CO., LTD.

Address: 300/24 MOO 1, EASTERN SEABOARD INDUSTRIAL ESTATE SOI 5
T.TASITH, A.PLUAKDAENG, RAYONG 21140 THAILAND

Tel: 1382 Fax: 038-959202

Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Product Name: Misumi ESD Glove.

Material Composition	Percent(%)	CAS No.
Polyurethane	60%	9009-54-5
Polyester	30%	/
Carbon	8%	7440-44-0
Spandex	2%	/

Section 3 - HAZARDS IDENTIFICATION

Potential Health Effects

Hazard Effects	Health Hazard Effects : None
	Environmental impact : None
	Physical and chemical hazard : None
	Special damages : None
Main Symptoms : No data	
Hazard Class : None	

Section 4 - FIRST AID MEASURES

Skin contact: Wash hands with mild soap after handling.

Eye contact: If the eyes are irritated flush with water for ten minutes. Obtain medical attention.

Avoid ingestion. If ingested seek medical attention.

Section 5 - FIRE FIGHTING MEASURES

Flash Point: > 100 °C

Lower Explosion Limit: N/A

Upper Explosion Limit: N/A

Fire Hazard: Stable under normal situation. Flammable / Combustible under extreme high heat and flame. Can generate toxic and combustible fumes, - carbon monoxide, nitrogen and hydrocarbon compounds, and soot.

Fire Fighting Procedures: Use full protective equipment and SCBA, filter masks, etc.

Extinguishing Media: High expansion foam, water fog and spray.

Section 6 - ACCIDENTAL RELEASE MEASURES

Release Response: Retain for recycle or disposal.

Section 7 - HANDLING AND STORAGE

Gloves shall maintain their properties when stored in dry condition at temperature between 10°C to 30°C. Protect gloves against ultraviolet light sources such as sunlight and oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Control

Use local exhaust in confined spaces where gloves are heated.

Personal Protective Equipment

Eyes : Not required. or just use goggles if gloves are heated.

Inhalation : Not required. or use face mask 3 ply

Skin : Not required. or use heat resistance gloves if heated to melting state.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Textured, White color

Physical State : Rubber / Odor / pH : 7 (Reference average)

Section 10: CHEMICAL STABILITY AND REACTIVITY INFORMATION

Chemical Stability : Stable at normal temperature and storage condition.

Conditions to Avoid : Avoid contact with excessive heat, sparks or open flame. Avoid dust accumulation.

Incompatibility with other materials

No specific information is available, however strong oxidizers or reducing agents which generally not compatible with compounds.

Hazardous Decomposition Products

Fumes produced when heated to decomposition temperatures may contain carbon monoxide, carbon dioxide, hydrogen cyanide, oxides of nitrogen, and small amounts of aromatic and aliphatic hydrocarbons. Combustion products from natural leather, like those of other natural and synthetic materials, must be considered toxic.

Section 11: TOXICOLOGICAL INFORMATION

No information is available.

Section 12: ECOLOGICAL INFORMATION

Product of Biodegradation: Biodegradable.

Ecotoxicity: Considered as inert.

Section 13: WASTE TREATMENT

Waste disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

Incineration: Put appropriate amount of the gloves into the incinerator or furnace to destroy them following the requirements shown below.

Requirements:

- 1) Burning temperature exceeds 850°C
- 2) Combustion retention time is not less than 2 seconds

Note: Gloves should not be destroyed by open burning at low temperature or dispose at normal disposal area

Section 14: TRANSPORTATION INFORMATION

Non-dangerous goods.

Section 15: LAW INFORMATION

No information is available.

Section 16: OTHER INFORMATION

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