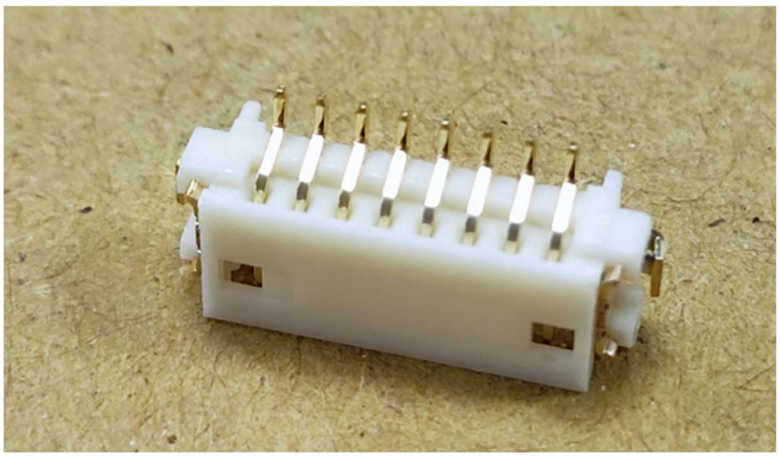
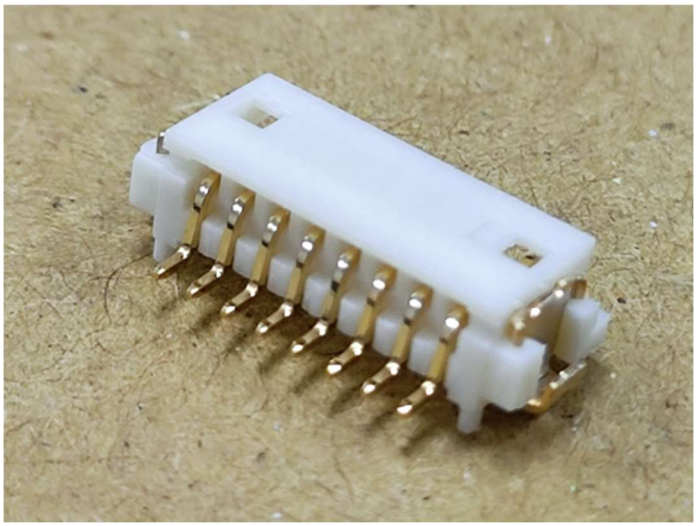
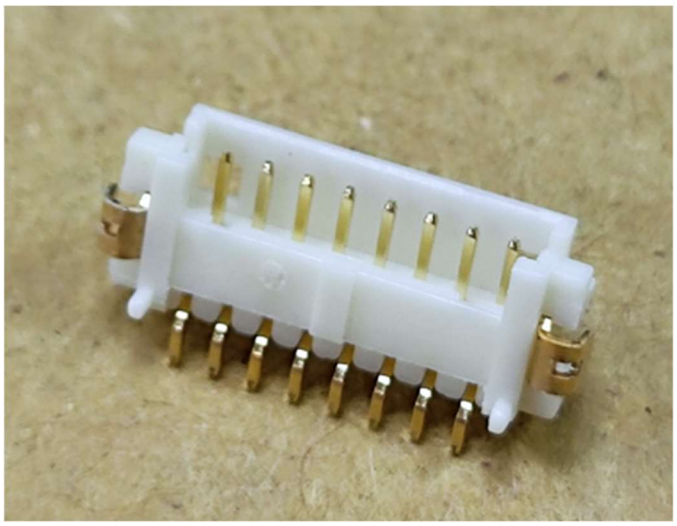
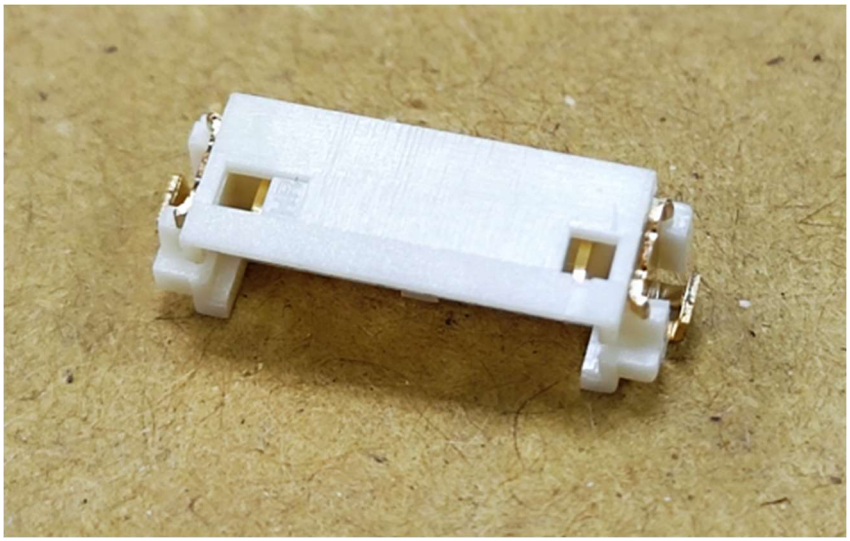
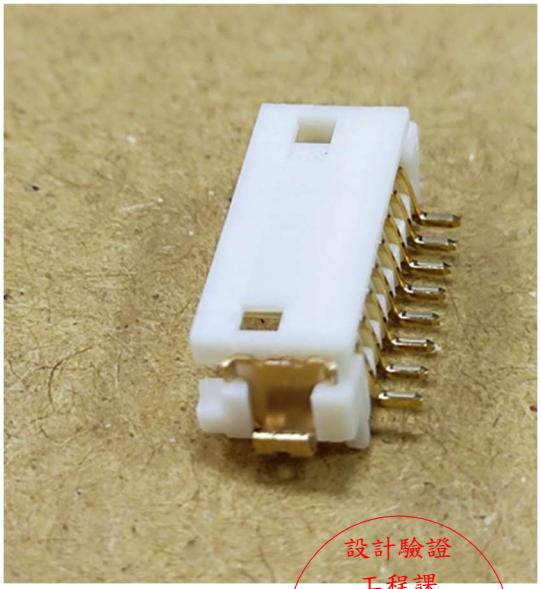












設計驗證
工程課
2024-11-08
發行
鈺緯科技開發股份有限公司

SUPERIOR TECH CO., LTD.

承 認 書

CUSTOMER APPROVAL SHEET

Customer:	鈺緯科技開發股份有限公司
Description:	Wafer PH1.25 臥式 SMT NY-6T 料
Customer's P/N:	3FM00814020 (F0304)
Superior's P/N:	WRBB-HS008G1WNNI-B30
Date:	2024/11/07
Document No:	AVL-411-0008

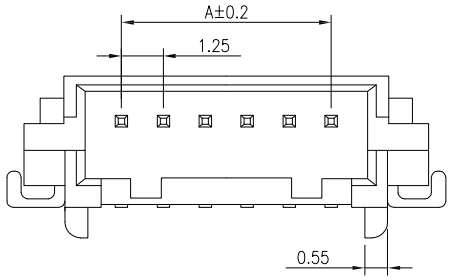
出 圖 DRAWING		
發行 MADE	檢查 CHECKED	承認 APPROVED
Jacky	Tom	Tom
日期 DATE:2024.11.07		

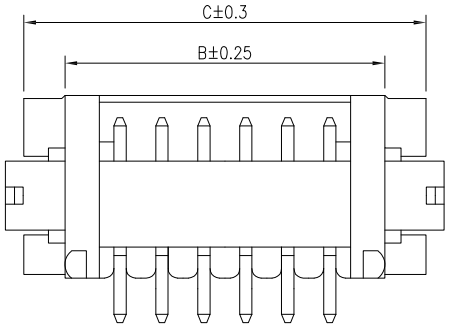
承 認 印 CUSTOMER APPROVE
設計驗證 工程課 2024-11-08 發行 鈺緯科技開發股份有限公司
日期 DATE:

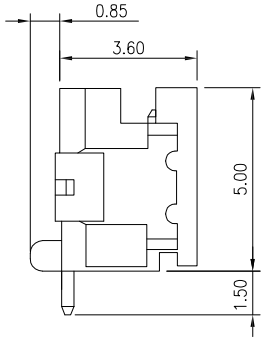
竣豪電子股份有限公司 SUPERIOR TECH CO.,LTD.
地址:新北市三重區重新路 5 段 609 巷 16 號 6 樓之 2
Tel:886-2-2278-7316 Fax:886-2-2278-7301

(Q2-R01-11A)

REV.	DESCRIPTION	DATE
A	New Drawing	2024/10/16



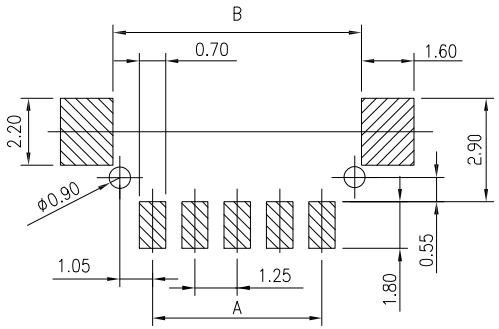




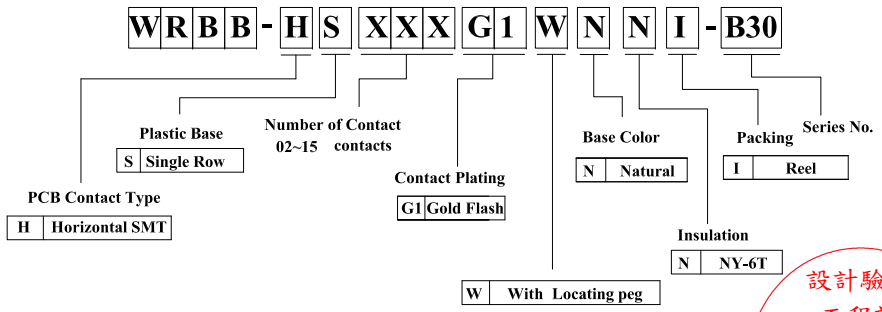
Circuit No.	Dimensions A	B	C
02P	1.25	4.15	6.25
03P	2.50	5.40	7.50
04P	3.75	6.65	8.75
05P	5.00	7.90	10.00
06P	6.25	9.15	11.25
07P	7.50	10.40	12.50
08P	8.75	11.65	13.75
09P	10.00	12.90	15.00
10P	11.25	14.15	16.25
11P	12.50	15.40	17.50
12P	13.75	16.65	18.75
13P	15.00	17.90	20.00
14P	16.25	19.15	21.25
15P	17.50	20.40	22.50

SPECIFICATIONS

Current Rating: 1A AC,DC
Voltage Rating: 150V AC,DC
Temperature Range: −25°C ~ +85°C
Contact Resistance: 30mΩ Max.
Insulation Resistance: 500MΩ Min.
Withstanding Voltage: 500V AC/minute
Pin Material: Brass/Gold−flash
Solder Tabs: Phosphor Bronze/Gold−flash
Material: Nylon 6T,UL94V−0
Color: Natural



P.C.B LAYOUT



RoHS compliant

設計驗證
工程課
2024-11-08
發行
紅蟻科技開發股份有限公司

竣豪電子股份有限公司 Superior Tech Co., Ltd.	General Tolerance	TITLE	WAFER PH1.25 臥式 SMT,NY-6T料,帶柱	
	X. ± 0.5	DRAWN Jacky	DATE 10-16-24'	NO. D076
	.X ± 0.3			
	.XX ± 0.2	CHECK Tom	DATE 10-16-24'	PART NO. WRBB-HSXXXG1WNNI-B30
REV. A / UNIT mm / SCALE 1:1	.XXX ± 0.1	APPROVED Tom	DATE 10-16-24'	CUSTOMER NO. 3FM00814020(F0304)
	角度 ± 5°			

(Q2-R03-01A) ST-R05-07

SPECIFICATION AND PERFORMANCE
TALBE OF CONTENT

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Rev	Date	Description	Edited by	Approvals
A	2002/05/27	Issue	LiLi	Prepared: Yang Hong
				Checked: Fang Ling
				Approved: David

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1. Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of **wafer connector pitch P1.25mm**.

2. Reference Documents:

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.
A.EIA-364: The Test Sequence and Test Procedures for Electrical Connectors and Sockets.
B.UL Std-94: Test of Flammability of Plastic material for Parts in Devices and Appliances.

3. REQUIREMENTS:

3.1 Material of Components:

A. Housing: Thermoplastic, UL94V-0 or 94V-2 Rated
B. Contact: Copper Alloy

3.2 Design and Construction:

Product shall be of the design, construction and physical dimensions specified in the applicable product drawing.

3.3 Ratings:

A. Voltage:	150V AC/DC
B. Current:	1.0A AC/DC
C. Temperature:	-25℃~85℃

4. Performance and Test Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in paragraph 5. Unless otherwise specified, all tests are performed at ambient environmental conditions.

5.Test Requirements and Procedures Summary:

Electrical Performance		
Test Description	Test Procedures & Condition	Requirements
Examination Of Product	Meets requirements of product drawing and JG specification .	Visual in specification No Physical damage .
Low Level Contact Resistance	EIA 364-23 The object of this test procedure is to detail a standard method to measure the electrical resistance across a pair of mated contacts such that the insulating films, if present, will not be broken or asperity melting will not occur. Subject mated contacts assembled in housing to closed circuit current of 100 mA maximum at open circuit at 20 mV maximum.	1.Initial:20 mΩ max 2.After Test:40 mΩ max
Insulation Resistance	EIA 364-21 The object of this test procedure is to detail a standard method to assess the insulation resistance of connectors. This test procedure is used to determine the resistance offered by the insulation materials and the various seals of a connector to a DC potential tending to produce a leakage of current through or on the surface of these members. Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector assemblies. Test Voltage: 500 Vdc.	100MΩ minimum

Test Description	Test procedures & Condition	Requirements
Dielectric Withstanding Voltage	EIA 364-20 The object of this test procedure is to detail a test method to prove that a connector can operate safety at its rated voltage and withstand momentary over potentials due to switching, surges and / or other similar phenomena. Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector assemblies. Test Potential: 500Vac at sea level Test Duration: 60 seconds	1. No flashover, No sparkover, No excess leakage, No breakdown 2. Current leakage ＜0.5mA

Mechanical Performance		
Test Description	Test Procedures & Condition	Requirements
Flammability	UL 94V-0 This procedure is to ensure thermoplastic resin compliance to UL flammability standards.	The manufacturer will require its thermoplastic resin vendor to supply a detailed C of C with each resin shipment. The C of C shall clearly show the resin's UL listing number, lot number, date code, etcetera.
Contact Retention	EIA 364-29 The object of this test is to detail a standard method to assess the ability of the contact retaining system to withstand the axial mechanical stresses likely to be encountered during normal usage. Subject unmade connector to measure the axial seating load forces required taking up any slack of the contact in its retention system. Apply an axial load to the contact at a rate of approximately 1lbs per second. Record by using autograph.	Per Pin: 250gf / per pin min
Durability	EIA 364-09 The object of this test procedure is to detail a uniform test method of determining the effects caused by subjecting a connector to the conditioning action of insertion and extraction, simulating the expected life o the connectors. Durability cycling with a gauge is intended only to produce mechanical stress. Durability performed with mating components is intended to produce both mechanical and wear stress.	1. 50 insertion / extraction cycles at a maximum rate of 500 cycles per hour. 2. No evidence of damage. 3. The electrical performances should meet the spec. Specified.

Test Description	Test Procedures & Condition	Requirements
Solderability	EIA 364-52 Category 3 The object of this test procedure is to detail a uniform test method for determining connector solder ability. The test procedure contained herein utilizes the solder dip technique. It is not intended to test or evaluate solder cup, solder solder eyelet, other hand-soldered type or SMT type terminations. Subject unmated connectors should be tested according to the listed below: Steam Aging Temperature : 90~96℃ Steam Aging Duration : 8 hours±5min Soldering Temperature : 245±5℃ Soldering Time: 4~5 seconds Flux: Unactivated	Continuous solder coating with a minimum 95% coverage.

Environmental Performance		
Test Description	Test Procedures & Condition	Requirements
Humidity (Temperature Cycling)	EIA 364-31 Method III Test Condition A The object of this procedure is to detail a standard test method for the evaluation of the properties of materials used in connectors as they are influenced by the effects of high humidity and heat. Subject mated and unmated connectors should be tested according to the condition listed below: Temperature : 25~65℃ Humidity: 90~95%(R.H) Duration: 96 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. Specified.
Salt Spray	EIA 364-26 Test Condition A The object for this test procedure is to detail a standard test method to assess the effects of a controlled salt laden atmosphere on connector components, finishes and mechanisms. Subject mated and unmated connectors should be tested according to the condition listed below: Temperature : 35±1.1℃ Humidity: 95~98% (R.H.) PH Value: 6.5~7.2 Duration: 16 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. Specified.
Temperature Life	EIA 364-17 Test Condition 3 Method A The object of this test is to detail a standard test method to assess the ability of a connector to withstand elevated temperatures with or without electrical loading. Subject mated connectors should be tested according to the condition listed below: Temperature : 85±2℃ Duration: 96 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. Specified.

Note : Shall meet visual requirements ,show no physical damage ,and shall meet requirements

of additional tests as specified in Test Sequence in paragraph 6 .

6. Product Qualifications and Qualification Test Sequence:

A. Sample Selection:

Test samples shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production.

B. Test Sequence:

The following is an example of how the test sequence works: In Test Group 8, the first test is (1), examination of product, followed by test (2), Temperature Life , followed by test (3), examination of product .Six samples are tested in this test group.

Test Description Sequence	Test Group							
	1	2	3	4	5	6	7	8
Examination of product	1,3	1,3	1,5	1,7	1,9	1,6	1,3	1.3
Low Level Contact Resistance		2,	2,4		2,6	2,4		
Insulation Resistance				2,5	3,7			
Dielectric Withstanding Voltage				3,6	4,8			
Contact Retention	2							
Durability						3	2	
Solder ability						5		
Humidity				4				
Salt Spray					5			
Temperature Life			3					2
Sample Size per Test Group	8	8	8	8	8	8	8	6

7. Quality Assurance Provisions :

Unless otherwise specified , in the contract or purchase order , we will be responsible for the quality of the part as it is delivered to client . We will be responsible for having controlled processes to ensure product is in total compliance with this specification .Failing lots shall be subject to return or other corrective action .

Further , JG will not substitute components of the assembly (connector , cable , etc) without prior written approval from client .Any such substitute shall be submitted to client for approval prior to implementation . Substitution shall be deemed as any change in JG different than those previously submitted to and approved by client .

7.1. Re-qualification Testing :

If changes significantly affecting form , fit or function are made to the product or manufacturing process , product assurance shall coordinate qualification testing , consisting of all or part of the original testing sequence as determined by development / product , quality and reliability engineering .

7.2 Acceptance :

Acceptance is based on verification that the product meets the requirement of paragragh 5 . Failures attributed to equipment , test setup or operator deficiencies shall not disqualify the product . When product failure occurs , corrective action shall be taken and samples resubmitted for qualification . Test to confirm corrective action is required before resubmittal .

7.3 Inspection Data :

Inspection and test data shall be recorded , evaluated , and maintained as evidence of performance to these provisions .

7.4 Quality Conformance Inspection :

Applicable JG quality inspection plan will specify the sampling acceptable quality level to be used . Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification .

7.5 Preparation for Delivery :

Overall packaging shall be sufficient to protect against damage or loss during shipment from JG to destination specified in the purchase order .

Test Report

No.: SHAPH23021281401 **Date:** Jan 02, 2024

Client Name: Mitsui Chemicals Inc.

Client Address: Tokyo Midtown Yaesu, Yaesu Central Tower 2-2-1 Yaesu, Chuo-ku, Tokyo 104-0028, Japan

Sample Name: Arlen

Material and Mark: E630N-CHINA

The above sample(s) and information were provided by the client.

SGS Job No.: SHIN2312009388PL01

Sample Receiving Date: Dec 18, 2023

Testing Period: Dec 18, 2023 ~ Jan 02, 2024

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

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

Jerry Jiang

Approved Signatory

Scan to see the report

SHAPH23021281401

Verification:
check.sgsonline.com.cn

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中国·上海·徐汇区宜山路889号3号楼 邮编: 200233 t HL (86–21) 61402594 f HL (86–21)61156899 e sgs.china@sgs.com

Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	001	SHA23-0212814-0001.C001	White solid particles

Remarks:

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

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

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

Test Item(s)	Limit	Unit(s)	MDL	001
Lead (Pb)	1000	mg/kg	2	5
Mercury (Hg)	1000	mg/kg	2	ND
Cadmium(Cd)	100	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Polybromobiphenyl (PBBs)	1000	mg/kg	-	ND
Monobromobiphenyl (MonoBB)	-	mg/kg	5	ND
Dibromobiphenyl (DiBB)	-	mg/kg	5	ND
Tribromobiphenyl (TriBB)	-	mg/kg	5	ND
Tetrabromobiphenyl (TetraBB)	-	mg/kg	5	ND
Pentabromobiphenyl (PentaBB)	-	mg/kg	5	ND
Hexabromobiphenyl (HexaBB)	-	mg/kg	5	ND
Heptabromobiphenyl (HeptaBB)	-	mg/kg	5	ND
Octabromobiphenyl (OctaBB)	-	mg/kg	5	ND
Nonabromobiphenyl (NonaBB)	-	mg/kg	5	ND
Decabromobiphenyl (DecaBB)	-	mg/kg	5	ND
Polybromodiphenyl ether(PBDEs)	1000	mg/kg	-	ND
Monobromodiphenylether (MonoBDE)	-	mg/kg	5	ND
Dibromodiphenylether (DiBDE)	-	mg/kg	5	ND
Tribromodiphenylether (TriBDE)	-	mg/kg	5	ND
Tetrabromodiphenylether (TetraBDE)	-	mg/kg	5	ND
Pentabromodiphenylether (PentaBDE)	-	mg/kg	5	ND
Hexabromodiphenylether (HexaBDE)	-	mg/kg	5	ND
Heptabromodiphenylether (HeptaBDE)	-	mg/kg	5	ND
Octabromodiphenylether (OctaBDE)	-	mg/kg	5	ND
Nonabromodiphenylether (NonaBDE)	-	mg/kg	5	ND
Decabromodiphenylether (DecaBDE)	-	mg/kg	5	ND
Bis-(2-ethylhexyl) Phthalate(DEHP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate(BBP)	1000	mg/kg	50	ND

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Test Item(s)	Limit	Unit(s)	MDL	001
Dibutyl Phthalate(DBP)	1000	mg/kg	50	ND
Diisobutyl Phthalate(DIBP)	1000	mg/kg	50	ND

Notes:
(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
(2) IEC 62321 series is equivalent to EN 62321 series.
(3) 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.

Halogen

Test Method: With reference to EN 14582:2016, analysis was performed by IC.

Test Item(s)	Unit(s)	MDL	001
Fluorine(F)	mg/kg	20	613
Chlorine(Cl)	mg/kg	50	ND
Bromine(Br)	mg/kg	50	89919*
Iodine(I)	mg/kg	50	ND

Hexabromocyclododecane (HBCDD/HBCD)

Test Method: With reference to US EPA 3550C:2007, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit(s)	MDL	001
Hexabromocyclododecane (HBCDD)	134237-50-6 /134237-51-7 /134237-52-8 /25637-99-4 /3194-55-6	mg/kg	10	ND

Perfluorooctanesulfonate (PFOS) and its derivatives and Perfluorooctanoic Acid (PFOA)

Test Method: With reference to US EPA 3550C:2007, analysis was performed by HPLC-MS.

Test Item(s)	CAS No.	Unit(s)	MDL	001
Perfluorooctanoic acid (PFOA) and its salts+	335-67-1	mg/kg	0.050	ND
Perfluorooctanesulfonic acid (PFOS)^	1763-23-1	mg/kg	0.025	ND

Notes:
(1) +PFOA refer to its salts including PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) and APFO (CAS No.: 3825-26-1);
(2) ^ PFOS including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH_4 (CAS No.: 29081-56-9), PFOS-$NH(OH)_2$ (CAS No.: 70225-14-8), PFOS-$N(C_2H_5)_4$ (CAS No.: 56773-42-3), PFOS-DDA(CAS No.:251099-16-8) and POSF (CAS No.: 307-35-7).

Phthalates

Test Method: With reference to EN 14372:2004, analysis was performed by GC-MS.

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Test Item(s)	CAS No.	Unit(s)	MDL	001
Diisononyl Phthalate (DINP)	28553-12-0 /68515-48-0	%	0.010	ND
Di-n-Octyl Phthalate(DNOP)	117-84-0	%	0.003	ND
Diisodecyl Phthalate (DIDP)	26761-40-0 /68515-49-1	%	0.010	ND
Dipentyl Phthalate (DnPP)	131-18-0	%	0.003	ND
Di-n-Hexyl Phthalate(DnHP)	84-75-3	%	0.003	ND

American Society for Testing and Materials –ASTM F 963-17 – soluble Heavy Metal for paint and similar surface-coating materials/ Substrate Materials

Test Method: With reference to ASTM F 963-17 (Clause 8.3), analysis was performed by ICP-OES.

Test Item(s)	Limit	Unit(s)	MDL	001
Soluble Lead(Pb)	90	mg/kg	5	ND
Soluble Antimony(Sb)	60	mg/kg	5	20
Soluble Arsenic(As)	25	mg/kg	2.5	ND
Soluble Barium(Ba)	1000	mg/kg	10	ND
Soluble Chromium(Cr)	60	mg/kg	5	ND
Soluble Cadmium(Cd)	75	mg/kg	5	ND
Soluble Mercury(Hg)	60	mg/kg	5	ND
Soluble Selenium(Se)	500	mg/kg	10	ND

Notes:
(1) Results shown are of the adjusted analytical results.

Remark:
*The reported result is for reference only.
Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (*w*=0) stated in ILAC-G8:09/2019.

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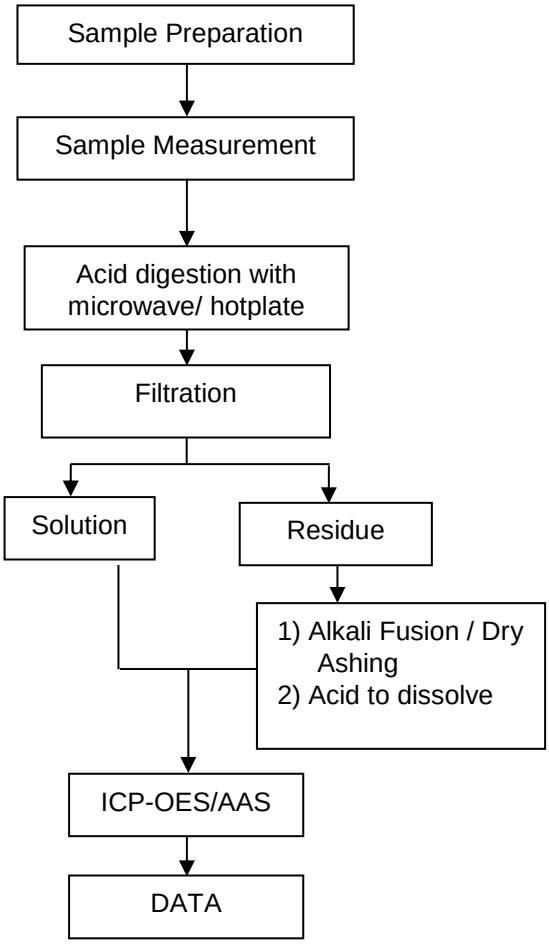
Elements Testing Flow Chart

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



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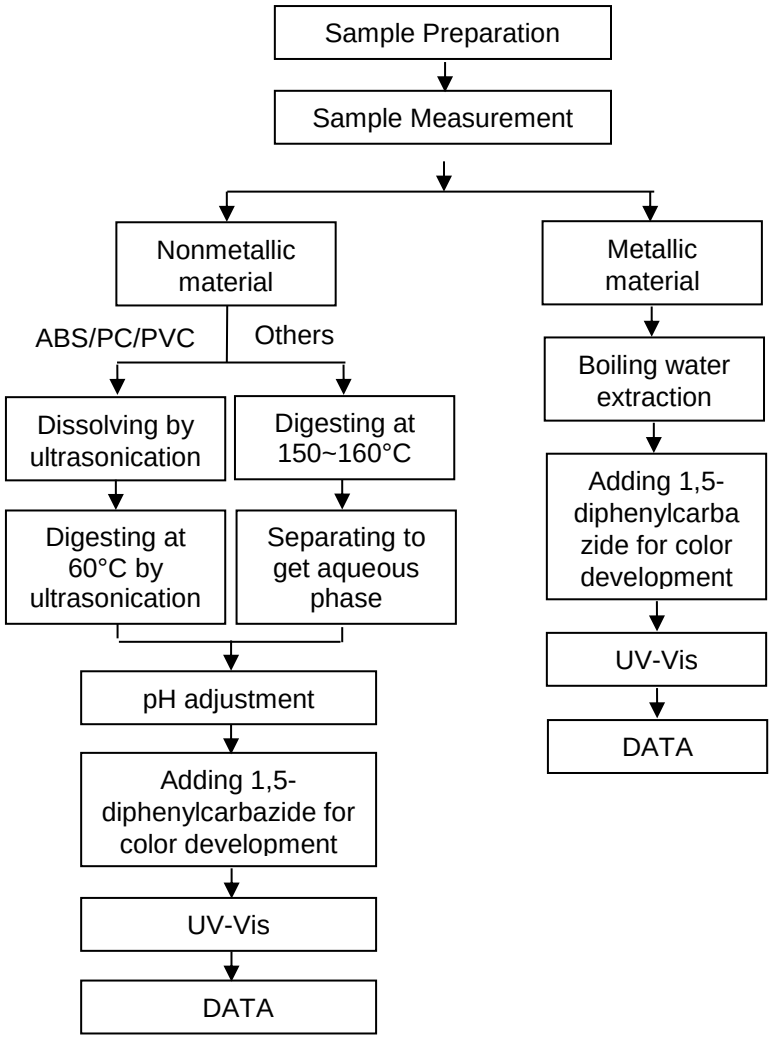
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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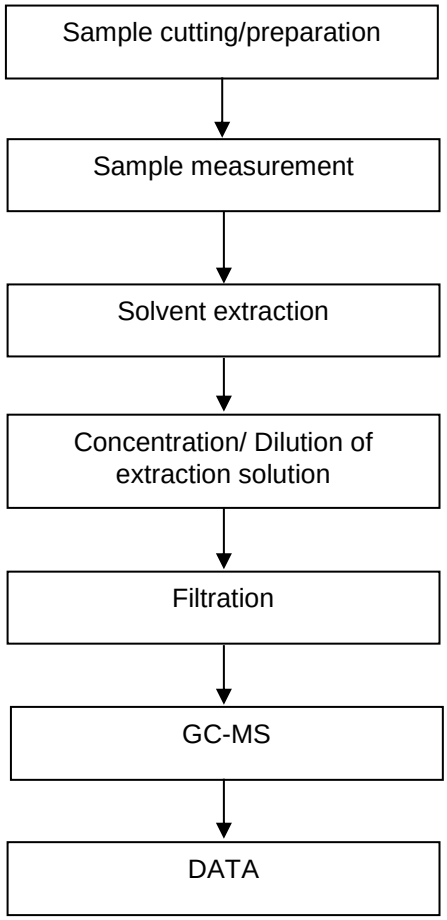
PBBs/PBDEs Testing Flow Chart



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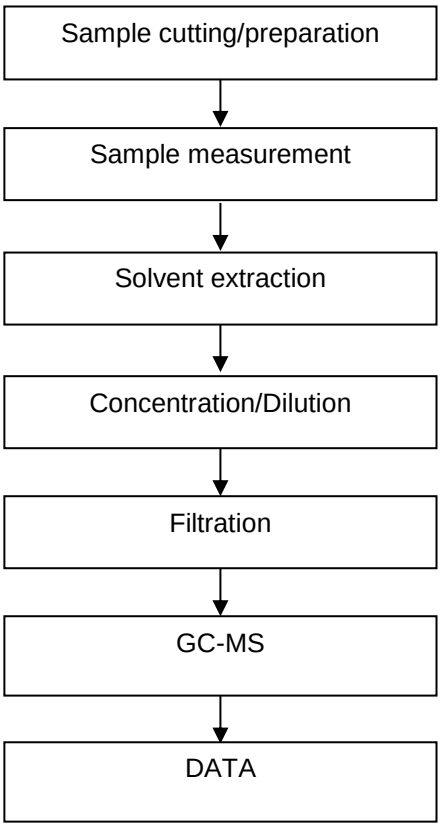
Phthalates Testing Flow Chart



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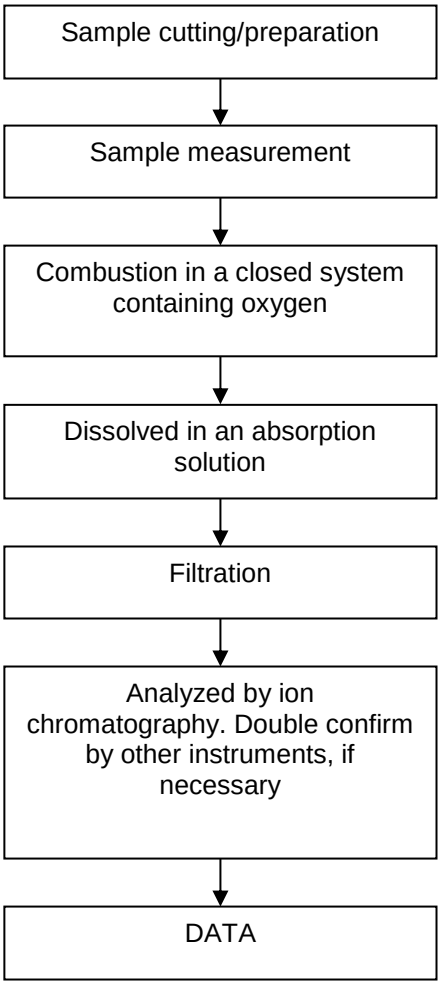
Halogen Testing Flow Chart



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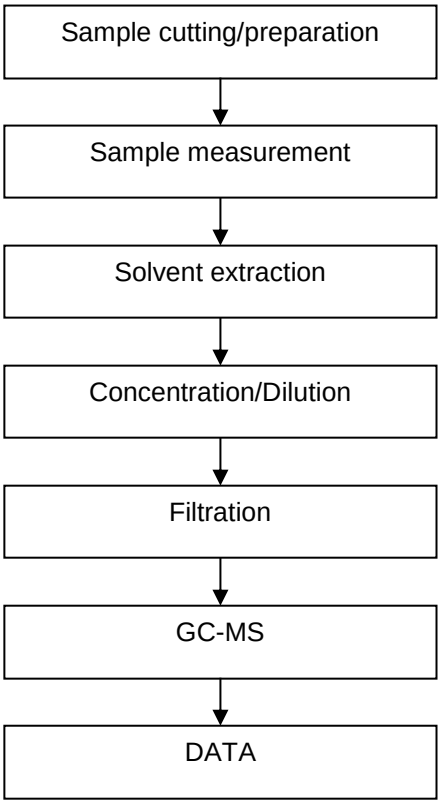
HBCDD Testing Flow Chart



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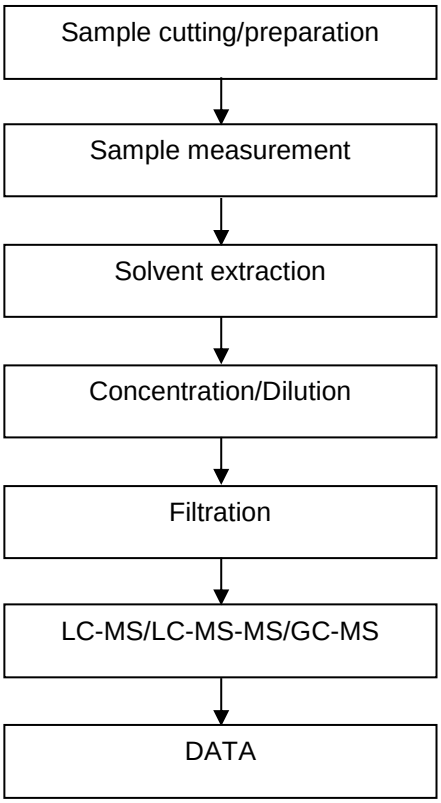
PFASs/ PFOS/PFOA Testing Flow Chart



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Sample Photo:



SHA23-0212814-0001.C001

SGS authenticate the photo on original report only

*** End of Report ***

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MATERIAL SAFETY DATA SHEET

Date May 31, 2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **ARLEN**
(GF-reinforced, flame-proof grades)

COMPANY IDENTIFICATION:
Performance Compound Division
Mitsui Chemicals, Inc.
Shiodome City Center
1-5-2, Higashi-Shimbashi, Minato-ku
Tokyo 105-7117, Japan
Telephone: +81-3-6253-3494 Telefax: +81-3-6253-4219

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:
PHYSICAL HAZARDS

Explosives	: Not applicable.
Flammable gases	: Not applicable.
Flammable aerosols	: Not applicable.
Oxidizing gases	: Not applicable.
Gases under pressure	: Not applicable.
Flammable liquids	: Not applicable.
Flammable solids	: Classification not possible.
Self-reactive substances and mixtures	: Not applicable.
Pyrophoric liquids	: Not applicable.
Pyrophoric solids	: Not classified.
Self-heating substances and mixtures	: Classification not possible.
Substances and mixtures, which in contact with water, emit flammable gases	: Classification not possible.
Oxidizing liquids	: Not applicable.
Oxidizing solids	: Classification not possible.
Organic peroxides	: Not applicable.
Corrosive to metals	: Classification not possible.

HEALTH HAZARDS

Acute toxicity: oral	: Not classified.
Acute toxicity: skin	: Not classified.
Acute toxicity: inhalation (gas)	: Not applicable.
Acute toxicity: inhalation (vapor)	: Not applicable.
Acute toxicity: inhalation (dust)	: Classification not possible.
Acute toxicity: inhalation (mist)	: Not applicable.
Skin corrosion/irritation	: Classification not possible.
Serious eye damage/eye irritation	: Category 2
Respiratory sensitization	: Classification not possible.
Skin sensitization	: Classification not possible.
Germ cell mutagenicity	: Classification not possible.
Carcinogenicity	: Category 2
Toxic to reproduction	: Classification not possible.
Specific target organ toxicity (single exposure)	: Category 3 (respiratory irritation)
Specific target organ toxicity (repeated exposure)	: Category 2 (lung, cardiovascular system)
Aspiration hazard	: Classification not possible.

ENVIRONMENTAL HAZARDS

Hazardous to the aquatic environment (acute)	: Classification not possible.
Hazardous to the aquatic environment (chronic)	: Classification not possible.

GHS LABEL ELEMENTS:

PICTOGRAMS:



SIGNAL WORD: WARNING

HAZARD STATEMENTS:
Causes serious eye irritation.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to lung and cardiovascular system through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS:
Prevention:
Obtain special instructions before use, and DO NOT handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area and DO NOT breathe dust/fume.
Use personal protective equipment; protective helmet/eye protection/face protection/respirator/protective gloves/protective clothing/safety shoes as required.
Wash hands, face, and other necessary parts thoroughly, and gargle after handling.
Avoid release to the environment.

Response:
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF exposed or concerned, or if you feel unwell: Get medical advice/attention.

Storage:
Keep container tightly closed. Store in cool/well ventilated area. Store locked up.

Disposal:
Dispose of contents/container in accordance with local/regional/national/international regulations.
Do not reuse the container for any other purpose. Dispose of in accordance with applicable laws and regulations.

OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION:
Slippery, can cause falls if walked on.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	%	CAS No.
Polyamide resin	-	-
Glass fiber	-	-
Brominated flame retardant	-	-
Antimony compound	< 10 *	-
Other components	-	-

* See Appendix.

4. FIRST AID MEASURES

INHALATION:
If exposed to excessive levels of fumes, remove to fresh air. Get medical attention if cough or other symptoms develop. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep the affected person warm and at rest.

EYE CONTACT:
Immediately flush eyes with plenty of water for several minutes and get medical attention.
Part eyelids with fingers to assure complete flushing.
Check for and remove contact lenses if easily possible.

SKIN CONTACT:
Immediately remove contaminated clothing and shoes. Flush skin with large amounts of water, clean off with soap and water. Get medical attention if symptoms develop.
If molten polymer contacts the skin, cool immediately with cold water. Do not attempt to peel polymer from the skin. Get medical attention for thermal burn.

INGESTION:
Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Keep the affected person warm and at rest. Get medical attention immediately.

MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED:
Fumes from heated molten polymer may cause irritation to eye and respiratory system. Dust may cause irritation to eye and skin.

SPECIAL PROTECTIVE ACTIONS FOR FIRST-AIDERS:
Wear appropriate personal protective equipment such as

respirator, goggles, protective gloves, etc.

NOTE TO PHYSICIAN:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: water jet, water fog, dry chemical, CO_2, alcohol foam.
Initial fire: dry chemical or CO_2.
Large fire: water or foam.

UNSUITABLE EXTINGUISHING MEDIA: Not specified.

SPECIAL HAZARDS:
Emits toxic fumes under fire conditions.

FIRE FIGHTING INSTRUCTIONS:
Keep unnecessary and unprotected personnel away. Shut off supply if possible. Remove containers to safe place if possible. Keep surrounding areas cool by spraying water. Fight fire from an upwind position.

FIRE FIGHTING EQUIPMENT:
Respiratory and eye protection required for fire-fighting personnel. Full protective equipment and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.

HAZARDOUS COMBUSTION PRODUCTS:
Carbon oxides, nitrogen oxides, hydrogen bromide, antimony oxide.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:
Evacuate immediate area. Warn personnel of health hazard. Keep unnecessary and unprotected personnel away. Wear appropriate personal protective equipment as specified in Section 8. Keep upwind, evacuate downwind.

ENVIRONMENTAL PRECAUTIONS:
Product is non-biodegradable; may cause long-term adverse effects in the aquatic environment.
Do not let this chemical enter the environment. Do not flush into sewer, river or any body of water.

CONTAINMENT/CLEAN-UP METHODS:
Vacuum or sweep up material and place in a disposal container. Use non-sparking tools and equipment.

7. HANDLING AND STORAGE

HANDLING
Technical Measures:
Use only in well-ventilated area. Keep away from heat, sparks, and flame. Use explosion-proof electrical equipment. Take precautions against build-up of electrostatic charges.
Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wear appropriate personal protective equipment. Provide hand and eye wash station near work area. Wash thoroughly after handling.

Ventilation:
Use only under local exhaust or general ventilation.

Safe Handling Advice:
Do not handle until all safety precautions have been read and understood. Take precautions against build-up of electrostatic charges. Avoid dust formation. Do not breathe dust.

STORAGE
Storage Conditions:
Protect from direct sunlight. Store in dark and well-ventilated area. Keep away from heat, flame, and all sources of ignition. Ground and bond containers and equipment to prevent build-up of electrostatic charges. Store locked up. Store in a segregated and approved area.

Packaging Material:
Product is hygroscopic. Use aluminum-lined paper bags.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:
< Continuous filament Glass fibers >
ACGIH-TLV: 1 fibers/cc(TWA)
5 mg/m^3(TWA) Inhalable fraction
OSHA-PEL : Not established

< Antimony compound >
ACGIH-TLV: 0.5 mg/m^3(TWA) as Sb
OSHA-PEL : 0.5 mg/m^3(TWA) as Sb

ENGINEERING CONTROLS:
Provide general ventilation. Use closed system or local exhaust ventilation. Provide safety shower and eye wash station near work area.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection	: Dust respirator.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses, goggles.
Skin and body protection	: Safety helmet, protective clothing, safety shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	: Solid.
APPEARANCE	: Colored pellet.(See Appendix)
ODOR	: Characteristic odor.
pH	: Not available.
BOILING POINT	: Not available.
MELTING POINT	: 310 - 320 °C (See Appendix)[1)]
FLASH POINT	: > 200 °C [1)]
AUTOIGNITION TEMPERATURE	: Not available.
FLAMMABLE LIMITS	: Not available.
VAPOR PRESSURE	: Not available.
VAPOR DENSITY	: Not available.
SPECIFIC GRAVITY	: 1.30 – 1.80 (at 4 °C)[1)]
SOLUBILITY	: Insoluble in water.[1)]
Log Pow	: Not available.
DECOMPOSITION TEMPERATURE	: Not available.

10. STABILITY AND REACTIVITY

STABILITY	: Stable for normal storage and handling.
HAZARDOUS REACTIONS	: Not available.
CONDITIONS TO AVOID	: Heat, air, sunlight.
MATERIALS TO AVOID	: Not available.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon oxides, nitrogen oxides, hydrogen bromide, antimony oxide.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Oral LD_{50} >5000 mg/kg(Calculated value for the mixture) [Not classified][1),2),3),4)]
Skin LD_{50} >5000 mg/kg(Calculated value for the mixture) [Not classified][1),2),3),4)]
Inhalation Not available.[Classification not possible]

SKIN CORROSION/IRRITATION:
[Classification not possible][1),2),3),4)]

SERIOUS EYE DAMAGE/EYE IRRITATION:
Causes serious eye irritation. [Category 2][1),2),3),4)]

RESPIRATORY SENSITIZATION:
Not available. [Classification not possible]

SKIN SENSITIZATION:
Not available. [Classification not possible]

GERM CELL MUTAGENICITY:
Not available. [Classification not possible]

CARCINOGENICITY:
Suspected of causing cancer. [Category 2][1),2),3),4)]

REPRODUCTIVE TOXICITY:
Not available. [Classification not possible]

SPECIFIC TARGET ORGAN TOXICITY:
Single Exposure :[Category 3] (respiratory irritation)[1),2),3),4)]
Repeated Exposure :[Category 2](lung, cardiovascular system)[1),2),3),4)]

ASPIRATION HAZARD:
Not available. [Classification not possible]

The following information is for the components of this product.
As for ANTIMONY COMPOUND, see “GHS Classifications of Regulated Chemicals” for further information.
(http://www.safe.nite.go.jp/english/ghs_index.html)

< Glass fiber >
SKIN CORROSION/IRRITATION: Mild [3)]

SERIOUS EYE DAMAGE/EYE IRRITATION: Mild [3)]

CARCINOGENICITY:
Classified in group 3 (Unclassifiable as to carcinogenicity in humans) by IARC.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):
Irritating to skin, eye, nose and may cause difficult breathing.[3)]

< Brominated flame retardant >
ACUTE TOXICITY:
Oral rat LD_{50} >5000 mg/kg [4)]
Skin rat LD_{50} >15000 mg/kg [4)]

SKIN CORROSION/IRRITATION:
Rabbit Mild.[4)]

SERIOUS EYE DAMAGE/EYE IRRITATION:
Rabbit Mild to moderate.[4)]

12. ECOLOGICAL INFORMATION

HAZARDOUS TO THE AQUATIC ENVIRONMENT (ACUTE):
Not available. [Classification not possible]

HAZARDOUS TO THE AQUATIC ENVIRONMENT (CHRONIC):
Not available. [Classification not possible]

The following information is for the components of this product.
As for ANTIMONY COMPOUND, see “GHS Classifications of Regulated Chemicals” for further information.
(http://www.safe.nite.go.jp/english/ghs_index.html)

13. DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES:
Whatever cannot be saved for recovery may be burned in an approved incinerator or disposed in approved waste facility. Ensure compliance with local, state, federal and national regulations.

CONTAMINATED PACKAGING:
Empty the container completely before disposal.

14. TRANSPORT INFORMATION

UN number : None.
UN class : Not regulated.

15. REGULATORY INFORMATION

INVENTORY STATUS
X: All components of this product comply with the inventory requirements administered by the governing country(s).

United States : TSCA Inventory [X]
European Union: EINECS [X] ELINCS [ ] NLP [ ]
Australia : AICS [ ]
Canada : DSL [X] NDSL [ ]
China : IECSC [X]
Japan : ENCS [X]
Korea : KECI [X]
New Zealand : NZIoC [X]
Philippine : PICCS [ ]

16. OTHER INFORMATION

References:
1) In-house data
2) GHS Classifications of Regulated Chemicals (National Institute of Technology and Evaluation, Japan, 2007)
3) NIOSH Pocket Guide (2007)
4) NICNAS Priority Existing Chemical Assessment Report No.20 (2001)

To the best of our knowledge, the information contained herein is accurate.
However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Appendix
This Material Safety Data Sheet covers these products:

Grade name	Appearance	Melting Point(°C)	Hazardous components
CH230N	Light-yellow pellet	310	Antimony compound 2.9%
CH230NC	Brown pellet	310	Antimony compound 2.9%
CH230NS	Light-yellow pellet	310	Antimony compound 2.9%
C215N	Light-yellow pellet	310	Antimony compound 5.8%
CH230NH	Gray pellet	310	Antimony compound 4.0%
CH230NR	Red pellet	310	Antimony compound 2.9%
C430N	Light-yellow pellet	310	Antimony compound 2.9%
E430N	Light-yellow pellet	320	Antimony compound 4.1%
E430N(T5)	Light-yellow pellet	320	Antimony compound 2.0%
E430NHS	Gray pellet	320	Antimony compound 3.9%
E430NHS(J)	Gray pellet	320	Antimony compound 3.9%
E430NS	Light-yellow pellet	320	Antimony compound 4.1%
E430NS(J)	Light-yellow pellet	320	Antimony compound 2.0%
E440N	Light-yellow pellet	320	Antimony compound 1.8%
E440NA	Blue pellet	320	Antimony compound 1.7%
E630N	Light-yellow pellet	320	Antimony compound 2.0%
E630NA	Blue pellet	320	Antimony compound 2.0%
E630NR	Red pellet	320	Antimony compound 2.0%

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The information presented on the UL Prospector datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

Component - Plastics E52579

Guide Information

MITSUI CHEMICALS INC

SHIODOME CITY CENTER, 1-5-2 HIGASHI-SHINBASHI, MINATO-KU TOKYO 105-7122 JP

E630N(e)

Polyamide 6T (PA6T) "Arlen", furnished as pellets

Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	0.4	-	-	-	-	-	-
	0.75	V-0	-	-	120	110	110
	1.5	V-0	-	-	120	120	120
	3.0	V-0	-	-	120	120	120

Comparative Tracking Index (CTI): 1
Inclined Plane Tracking (IPT) kV: -
Dielectric Strength (kV/mm): -
Volume Resistivity (10^x ohm-cm): -
High-Voltage Arc Tracking Rate (HVTR): -
High Volt, Low Current Arc Resis (D495): -
Dimensional Stability (%): -

(e) - May be followed by 1 to 4 digits and/or letters except N and combinations starting with N. For grade CH230N(e)(r), letter H should also be excepted and for grade C240(e), letter V1 should also be excepted.

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 2005-10-26
Last Revised: 2018-03-26

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.75	V-0 (ALL)
			1.5	V-0 (ALL)
			3.0	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	°C	0.4	960
			0.75	960
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	°C	0.4	960
			0.75	960
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	°C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	°C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m^2	-	-
ISO Izod Impact	ISO 180	kJ/m^2	-	-
ISO Charpy Impact	ISO 179-2	kJ/m^2	-	-

中国认可
国际互认
检测
TESTING
CNAS L0599

Test Report

No.: SHAEC24000724301 **Date:** Jan 15, 2024

Client Name: WUHU TRUCHUM ALLOY-COPPER CO., LTD.

Client Address: NORTH INDUSTRIAL AREA OF THE BRID WUHU

Sample Name: COPPER WIRE

Model No.: H65

Client Ref. Information: H65/CuZn36/C27000/C2680/C2700/C26800

The above sample(s) and information were provided by the client.

SGS Job No.: SHP24-001087

Sample Receiving Date: Jan 11, 2024

Testing Period: Jan 11, 2024 ~ Jan 15, 2024

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

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

Dora Hu
Approved Signatory

scan to see the report
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Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	SHA24-0007243-0001.C001	Golden metal wire

Remarks:

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

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015, IEC 62321-6:2015 and IEC62321-8:2017, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A1
Lead (Pb)	1000	mg/kg	2	20
Mercury (Hg)	1000	mg/kg	2	ND
Cadmium (Cd)	100	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	µg/cm²	0.10	ND
Polybrominated biphenyls (PBB)	1000	mg/kg	-	ND
Monobrominated biphenyl (MonoBB)	-	mg/kg	5	ND
Dibrominated biphenyl (DiBB)	-	mg/kg	5	ND
Tribrominated biphenyl (TriBB)	-	mg/kg	5	ND
Tetrabrominated biphenyl (TetraBB)	-	mg/kg	5	ND
Pentabrominated biphenyl (PentaBB)	-	mg/kg	5	ND
Hexabrominated biphenyl (HexaBB)	-	mg/kg	5	ND
Heptabrominated biphenyl (HeptaBB)	-	mg/kg	5	ND
Octabrominated biphenyl (OctaBB)	-	mg/kg	5	ND
Nonabrominated biphenyl (NonaBB)	-	mg/kg	5	ND
Decabrominated biphenyl (DecaBB)	-	mg/kg	5	ND
Polybrominated diphenyl ethers (PBDE)	1000	mg/kg	-	ND
Monobrominated diphenyl ether (MonoBDE)	-	mg/kg	5	ND
Dibrominated diphenyl ether (DiBDE)	-	mg/kg	5	ND
Tribrominated diphenyl ether (TriBDE)	-	mg/kg	5	ND
Tetrabrominated diphenyl ether (TetraBDE)	-	mg/kg	5	ND
Pentabrominated diphenyl ether (PentaBDE)	-	mg/kg	5	ND
Hexabrominated diphenyl ether (HexaBDE)	-	mg/kg	5	ND
Heptabrominated diphenyl ether (HeptaBDE)	-	mg/kg	5	ND

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Test Item(s)	Limit	Unit(s)	MDL	A1
Octabrominated diphenyl ether (OctaBDE)	-	mg/kg	5	ND
Nonabrominated diphenyl ether (NonaBDE)	-	mg/kg	5	ND
Decabrominated diphenyl ether (DecaBDE)	-	mg/kg	5	ND
Bis(2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND
Diisobutyl phthalate (DIBP)	1000	mg/kg	50	ND

Notes:

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

(2) IEC 62321 series is equivalent to EN 62321 series.

(3) ▼ = a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm^2. The sample coating is considered to contain Cr(VI).

b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 μg/cm^2). The coating is considered a non-Cr(VI) based coating.

c. The result between 0.10 μg/cm^2 and 0.13 μg/cm^2 is considered to be inconclusive-unavoidable coating variations may influence the determination.

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(4) Test item PBBs, PBDEs, Phthalates are not included in CNAS Accredited Scope for our laboratory.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (*w*=0) stated in ILAC-G8:09/2019.

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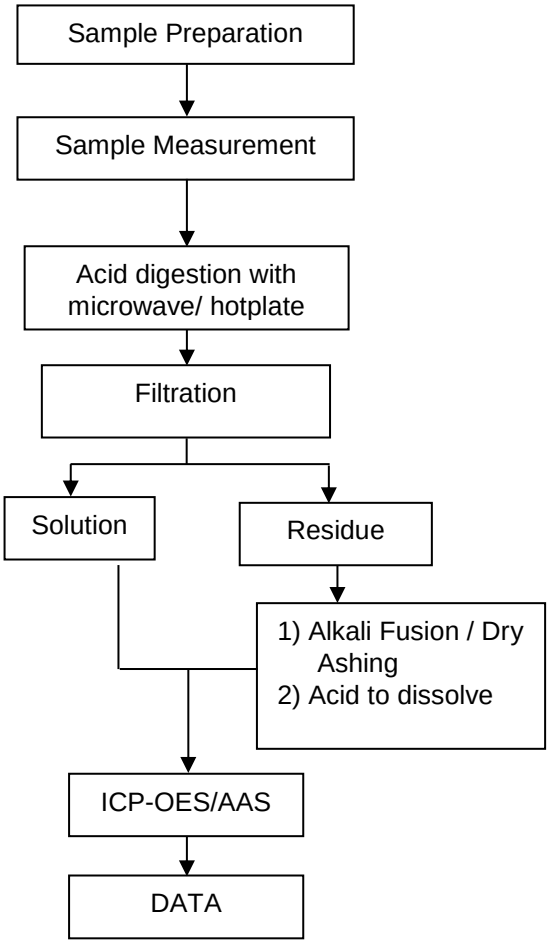
Elements Testing Flow Chart

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



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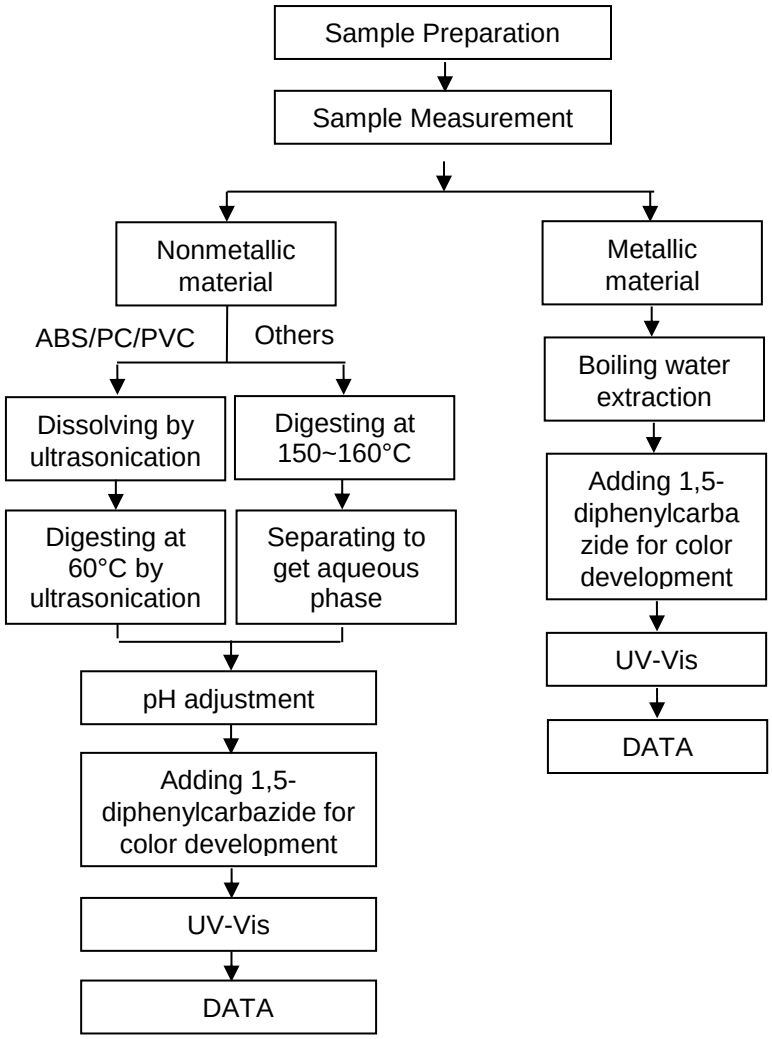
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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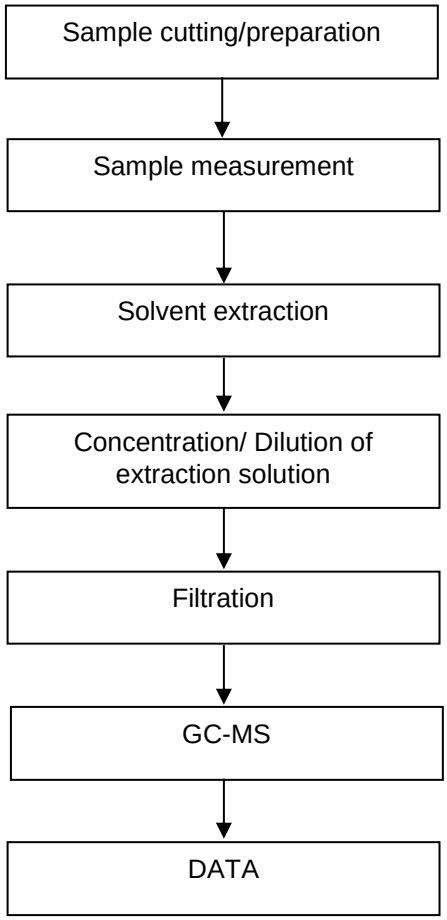
PBBs/PBDEs Testing Flow Chart



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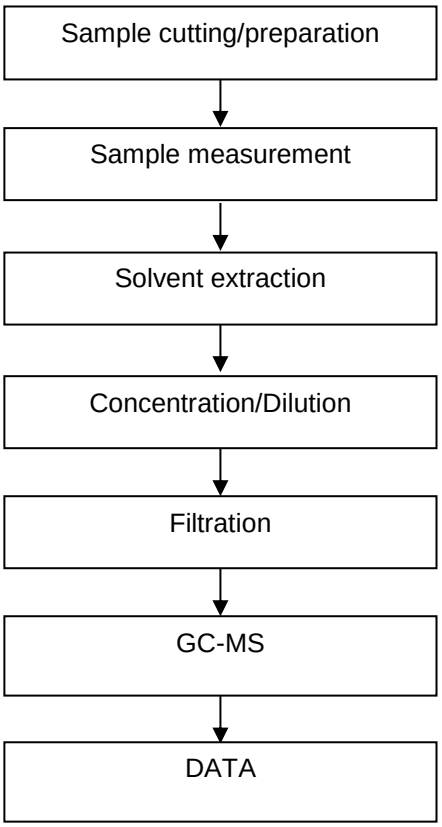
Phthalates Testing Flow Chart



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Sample Photo:



SHA24-0007243-0001.C001

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	黄铜 SDS	宁波博威合金材料股份有限公司	
		文件编号	HJ-JC-001A
		代　替	
		执行日期	2020 年 3 月 9 日

安全数据表(MSDS)

第1部分　产品概述

产品名称：黄铜

牌　　号：H62、H63、H65、H68、H70、H80

生 产 商：宁波博威合金材料股份有限公司

第2部分　主要组成成份

牌　号	*化 学 成 分，%*					
	Cu	*Pb*	*Fe*	*Ni*	*P*	*Zn*
T27600、 H62	*60.5-63.5*	*<0.05*	*<0.05*	—	—	*余量*
T27300、H63	*62.0-65.0*	*<0.07*	*<0.07*	—	—	*余量*
T27000、H65	*63.0-68.5*	*<0.05*	*<0.05*	—	—	*余量*
T26300、H68	*67.0-70.0*	*<0.05*	*<0.05*	—	—	*余量*
T26100 、H70	*68.5-71.5*	*<0.03*	*<0.05*	—	—	*余量*
C24000、H80	*78.5-81.5*	*<0.05*	*<0.05*	—	—	*余量*
CAS NO	*7440-50-8*	*7439-92-1*	*7439-89-6*	—	—	*7440-66-6*

第 3 部分　危害辨认资料

危险性类别：固态时不具危险性

侵入途径：粉尘接触或吸入

健康危害：长时间暴露于粉尘及烟雾的工作条件下，对眼镜、呼吸系统、皮肤会造成刺激

环境危害：含有重金属铜、锌

燃爆危险：不适用

第4 部分　使用与储存注意事项

储存：应存放于通风良好、干燥、荫凉之场所。

使用：注意划伤。

第5 部分　物理和化学特性

物质状态：固体

外观：黄色金属色泽，不溶于水，无味。

熔点：967-1100℃

溶解性：不溶于水。

闪火点：无。

自燃温度：无。

最小着火能量：无。

密度：8500-8800kg/m^3。

爆炸界限：无。

自燃温度：无。

第6 部分　对环境影响

可能的环境影响：

执行欧洲环境标准：对环境无不良影响。

有害物质最大限量：

序号	化学成分	最大限量	
1	Pb 铅	＜100PPM	＜0.01%
2	Cd 镉	＜5 PPM	＜0.0005%
3	Hg 汞	＜5 PPM	＜0.0005%
4	Ba 钡	＜100 PPM	＜0.01%
5	Sb 锑	＜60 PPM	＜0.006%
6	Sc 硒	＜500 PPM	＜0.05%
7	As 砷	＜25 PPM	＜0.0025%
8	Cr6+ 六价铬	＜100 PPM	＜0.01%

第7 部分　急救措施

加工研磨此材料后产生粉末或灰尘：

1）皮肤接触：清除粉尘，用肥皂水清洗。

2）眼睛接触：立即翻开上下眼睑，用水清洗。

3）吸入：　转移至空气新鲜处。

作业后直接处理：

1）皮肤烫伤：立即用流动的水冷却患处，严重时立即就医。

2）吞咽：用清水冲洗口腔，立即就医。

第8 部分　消防措施

可燃性：非易燃。

爆炸性：非易爆。

第 9 部分　接触控制/个体防护

空气中铜和锡最高容许浓度：Cu：0.1mg/ m^3　Sn：2mg/ m^3。

监测方法：OSHA PEL 标准。

工程控制：加强通风。

呼吸系统防护：超过标准浓度时佩带过滤式防毒面具。

眼睛防护：佩戴边部带遮片的防护眼镜。

身体防护：穿戴防护工作服。

手防护： 佩戴防护手套。

其他防护：面罩，特制的彩色眼镜。

第 10 部分　稳定性和反应活性

稳定性：稳定。

禁配物：酸，氧化剂。

应该避免接触的条件或物质：水，高热，火，化学反应。

第 11 部分　毒理学资料

急性毒性：无。

亚急性和慢性毒性：无。

致敏性：金属过敏，皮炎，手足角质化，上呼吸道不适。

致癌性：无。

第 12 部分　生态学资料

生物降解能力：无数据

对鱼的毒性：以 $CuSO_4$ 的形式 TLm（Cu）48Hr

三文鱼：0.038-0.8ppm

化学耗氧量：N/A。

控制浓度：N/A。

第 13 部分　废弃处置

废弃物类别：工业固体废物。

废弃处置方法：可回收再利用。

第 14 部分　包装和运输

包装方法：密封包装(参照《重有色金属加工产品的包装、标志、运输和贮存》（GB8888-88））。

运输注意事项：防止水分接触，以防腐蚀；过程中不能有碰撞及挤压。

第 15 部分　法规信息

法规信息：无特定法令规定，但是在会产生粉尘的场所必须遵守劳动安全法、劳工作业环境空气有害物质容许浓度标准。

第 16 部分　其他信息

联系方式：0574-83004710

编写日期：2023 年 08 月

Test Report

No.: CANEC24022446707 **Date:** Oct 17, 2024

Client Name: DONGGUAN YULAN METAL CO.,LTD

Client Address: ROOM 101, BUILDING 2, NO.11, SECOND WUSONG STREET, DONGCHENG STREET, DONGGUAN CITY, GUANGDONG PROVINCE

Sample Name: PHOSPHOR BRONZE COPPER C5191

The above sample(s) and information were provided by the client.

SGS Job No.: SZP24-044456

Sample Receiving Date: Oct 12, 2024

Testing Period: Oct 12, 2024 ~ Oct 17, 2024

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Arsene Ye

Arsene Ye
Approved Signatory

scan to see the report

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t (86–20) 82155555 sgs.china@sgs.com

Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	A3	CAN24-0224467-0001.C003	Copper-colored metal

Remarks:

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

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A3
Lead (Pb)	1000	mg/kg	2	9
Mercury (Hg)	1000	mg/kg	2	ND
Cadmium (Cd)	100	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	µg/cm²	0.10	ND
Polybrominated biphenyls (PBB)	1000	mg/kg	-	ND
Monobrominated biphenyl (MonoBB)	-	mg/kg	25	ND
Dibrominated biphenyl (DiBB)	-	mg/kg	25	ND
Tribrominated biphenyl (TriBB)	-	mg/kg	25	ND
Tetrabrominated biphenyl (TetraBB)	-	mg/kg	25	ND
Pentabrominated biphenyl (PentaBB)	-	mg/kg	25	ND
Hexabrominated biphenyl (HexaBB)	-	mg/kg	25	ND
Heptabrominated biphenyl (HeptaBB)	-	mg/kg	25	ND
Octabrominated biphenyl (OctaBB)	-	mg/kg	25	ND
Nonabrominated biphenyl (NonaBB)	-	mg/kg	25	ND
Decabrominated biphenyl (DecaBB)	-	mg/kg	25	ND
Polybrominated diphenyl ethers (PBDE)	1000	mg/kg	-	ND
Monobrominated diphenyl ether (MonoBDE)	-	mg/kg	25	ND
Dibrominated diphenyl ether (DiBDE)	-	mg/kg	25	ND
Tribrominated diphenyl ether (TriBDE)	-	mg/kg	25	ND
Tetrabrominated diphenyl ether (TetraBDE)	-	mg/kg	25	ND
Pentabrominated diphenyl ether (PentaBDE)	-	mg/kg	25	ND
Hexabrominated diphenyl ether (HexaBDE)	-	mg/kg	25	ND
Heptabrominated diphenyl ether (HeptaBDE)	-	mg/kg	25	ND
Octabrominated diphenyl ether (OctaBDE)	-	mg/kg	25	ND

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Test Item(s)	Limit	Unit(s)	MDL	A3
Nonabrominated diphenyl ether (NonaBDE)	-	mg/kg	25	ND
Decabrominated diphenyl ether (DecaBDE)	-	mg/kg	25	ND
Di-2-Ethyl Hexyl Phthalate (DEHP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND
Dibutyl Phthalate (DBP)	1000	mg/kg	50	ND
Diisobutyl Phthalate (DIBP)	1000	mg/kg	50	ND

Notes:

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

(2) IEC 62321 series is equivalent to EN 62321 series.

(3) ▼ =
a. The sample is positive for Cr(VI) if the Cr(VI)concentration is greater than 0.13 μg/cm^2. The sample coating is considered to contain Cr(VI).
b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 μg/cm^2). The coating is considered a non-Cr(VI) based coating.
c. The result between 0.10 μg/cm^2 and 0.13 μg/cm^2 is considered to be inconclusive-unavoidable coating variations may influence the determination.

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (*w*=0) stated in ILAC-G8:09/2019.

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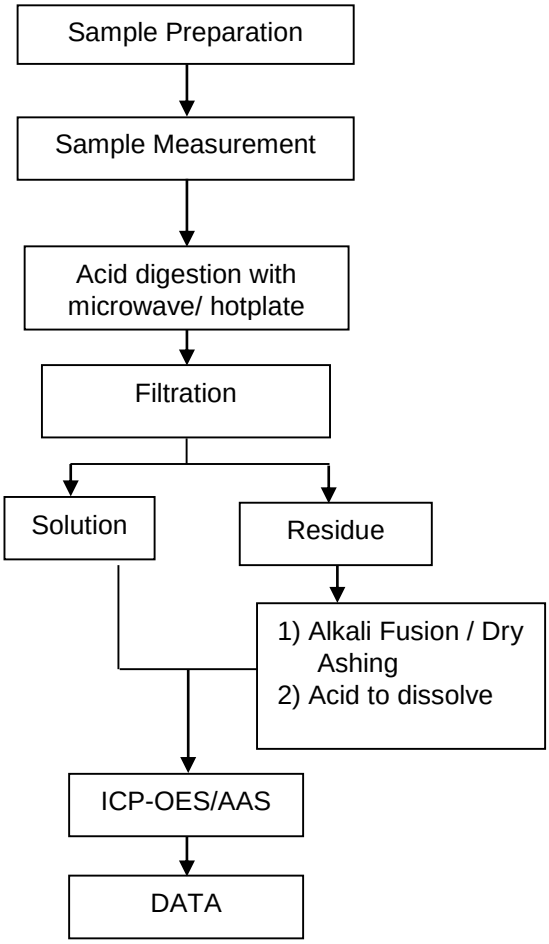
Elements Testing Flow Chart

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



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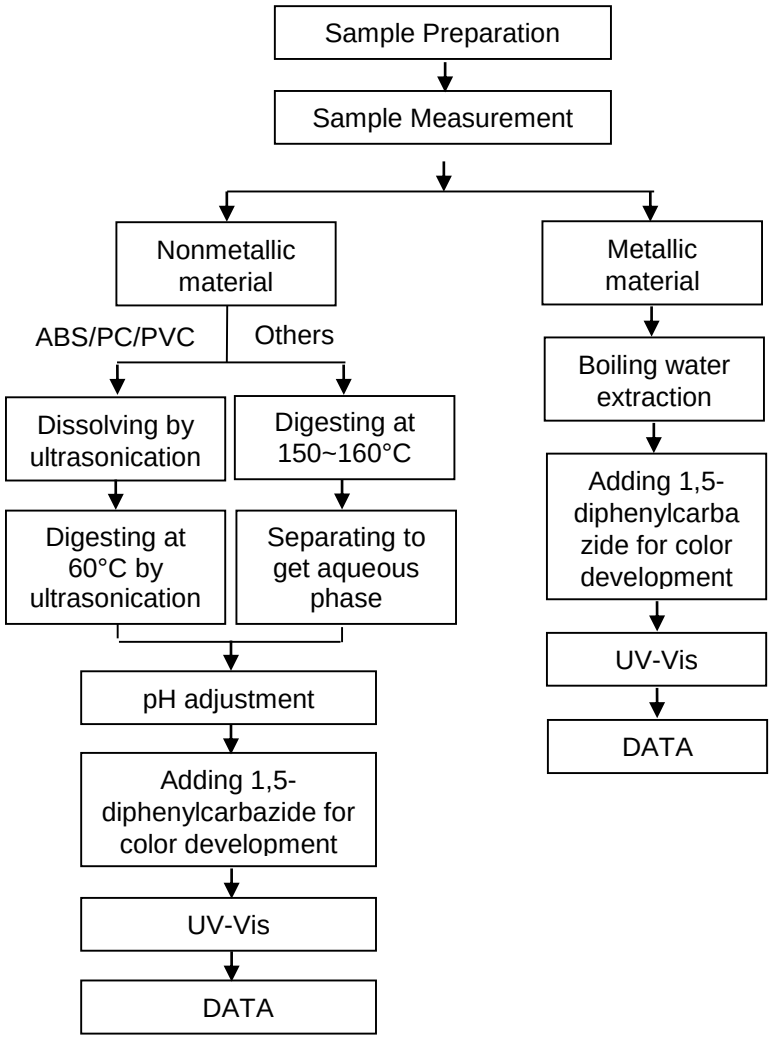
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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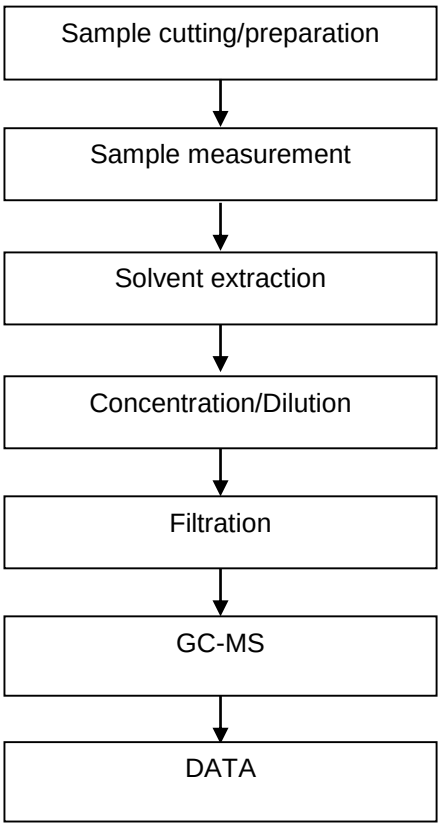
PBB/PBDE/Phthalates Testing Flow Chart



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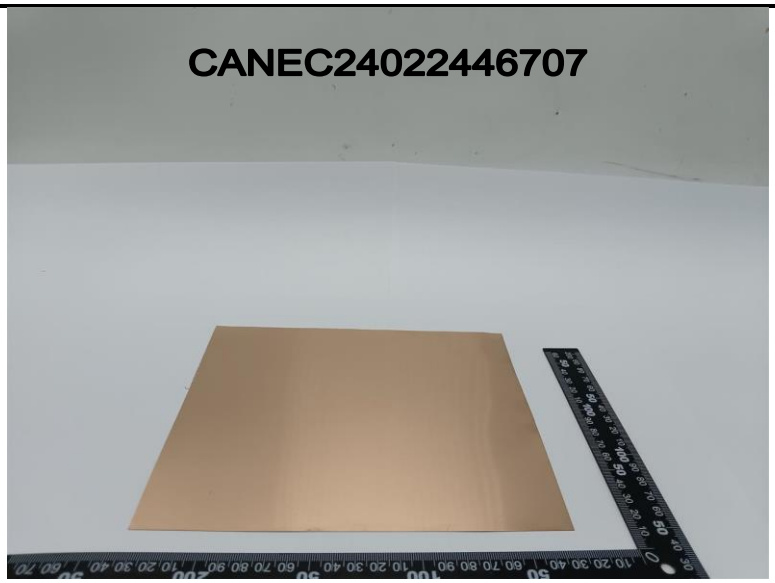
Sample Photo:



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物质安全资料表

第 1 部分　产品品名与制造商信息
Part 1　Description of Goods and Producer Information

物料名称：磷铜带（C5210/C5191/C5102/C5100）
制造商/供应商名称：　东莞市钰蓝金属有限公司
东莞市东城区温塘祠下工业区一路 39 号/0769-22620260
紧急联络电话/传真电话：0769-22620260

第 2 部分　组成成份
Part 2　Composition

Type No. 牌号	Chemical composition: %, minimum 化 学 成 分: % ， 不大于						
	Pb	Fe	Sn	P	Zn	Cu	Cu+ Sn+ P
C5111R、C51100	0.02	0.1	3.5~4.5	0.03~0.35	0.2	Balance	≥99. 5
C5102R、C51000	0.05	0.1	4.5~5.5	0.03~0.35	0.2	Balance	≥99.5
C5191R、C51900	0.05	0.1	5.5~7.0	0.03~0.35	0.2	Balance	≥99.5
C5210R、C52100	0.05	0.1	7.0~9.0	0.03~0.35	0.2	Balance	≥99.5

第 3 部分　危害信息
Part 3　Hazards Identification

吸入金属粉尘:造成呼吸困难。
To inhale the metal powder: can cause headaches and breathing problems.
金属粉末对眼睛危害:损伤视力。
Impact on eyes from the metal powder: Eyesight could be harmed.
对皮肤的影响:划伤。
Impact on skin: Skin could be incised wound.
致癌性:无资料。
Carcinogenic: No information.

第 4 部分　急救措施
Part 4　First Aid Measures

皮肤接触：清除粉尘，用肥皂水清洗。
Skin contaminated: Remove the powder with soap-suds.
眼睛接触：立即翻开上下眼睑，用水清洗。
Eyes contaminated: Turn open eye-lids immediately, and wash them with clean water.
吸入：　转移至空气新鲜处。
Inhaled:　Move to the place with fresh air.

第 5 部分　消防措施
Part 5　　Fire fighting measures
可燃性：非易燃。
Combustibility: Not combustible.
爆炸性：非易爆。
Explosibility: Not explosive.

第 6 部分　泄露应急处理
Part 6.　　Accidental Release Measures
产品为固体，无泄漏现象。
The product is solid, no leakage phenomenon.

第 7 部分　操作和储存
Part 7　　Handling and Storage
操作：注意被割伤划伤。
Handling: Be careful not to being cut.
包装方法：密封包装(参照《重有色金属加工产品的包装、标志、运输和贮存》（GB8888-88））。
Package:　Hermetic package (Please refer to "Packing, marking, transporting and stocking ways of processed non-ferrous metals" (GB GB8888-88）).
储存：应包装好存放于通风良好、干燥、荫凉之场所。
Storage: Goods should be well wrapped and stored in ventilated, dry and shady places.

第 8 部分　接触控制和个人防护措施
Part 8.　　Exposure Controls/Personal Protection
空气中铜和锡最高容许浓度：CU：0.1MG/M^3 SN： 2MG/ M^3。
Maximum thickness of Cu and Sn in the air: CU：0.1MG/M^3 SN： 2MG/ M^3.
监测方法：OSHA PEL 标准。
Detection methods: According to OSHA PEL Standard.
工程控制：加强通风。
Engineering control: Keep the working place ventilated.
呼吸系统防护：超过标准浓度时佩带过滤式防毒面具。
Respiratory organs protection: Must wear screen-style gas mask if the thickness is higher than the safe standard.
眼睛防护：佩戴边部带遮片的防护眼镜。
Eyes protection: Wear protective glasses with protecting side panes.
身体防护：穿戴防护工作服。
Body protection: Wear protective working clothes.
手防护：　佩戴防护手套。
Hands protection: Wear protective working gloves.
其他防护：面罩，特制的彩色眼镜。
Others: Wear protective mask, special color glasses.

第 9 部分　物理和化学特性
Part 9　Physical and chemical properties
外观：黄色或红色的金属色泽，不溶于水，无味。
Appearance: Yellowish and reddish color with metal luster, non-dissoluble in water, insipid with no smell.

熔点：1290-2260F。
Melting point: 1290-2260F.
溶解性：不溶于水。
Dis-solubility: Non-dissoluble in water.
密度：8800kg/m^3。
Density: 8800kg/m^3.
主要用途：连接器、接插端子等。
Usages: Connectors,terminals and etc.

第 10 部分 稳定性和反应活性
Part 10 Stability and reactivity

稳定性：稳定。
Stability: Stable.
禁配物：酸，氧化剂。
Substances prohibited to be with: Acid, oxidizer.
应该避免接触的条件或物质：水，高热，火，化学反应。
Substances or conditions prohibited to touch: Water, high temperature, fire, chemical reaction.

第 11 部分 毒理学信息
Part 11 Toxicological Information

急性毒性：无。
Acute toxicity: No.
亚急性和慢性毒性：无。
Sub-acute toxicity and chronic toxicity: No.
致敏性：金属过敏，皮炎，手足角质化，上呼吸道不适。
Possibility of causing irritability: Irritability against metals, dermatitis, horny-skin of hands and feet skin, feeling uncomfortable in the upper respiratory organs.
致癌性：无。
Possibility of causing cancer: No.

第 12 部分 生态学信息
Part 12. Ecological Information

Apply Europe environment-protection standard: No negative effects on environment.
执行欧洲环境标准: 对环境无不良影响。
Limit of contents of hazardous substances:
有害物质最大限量：

Item No. 序号	Chemical elements 化学成分	limit of contents 最大限量
1	Pb 铅	＜1000PPM
2	Cd 镉	＜50 PPM
3	Hg 汞	＜5 PPM
4	六价铬/Cr^{6+}	＜5 PPM

第 13 部分：废弃处置
Part 13 Disposal Considerations
废弃物类别：工业固体废物。
Category of the wastes: Industrial solid wasters.
废弃处置方法：可回收再利用。
Methods of treatment: Can be reclaimed and reused.

第 14 部分 运输信息
Part 14 Transport Information
运输注意事项：防止水分接触，以防腐蚀。
Matters needing attentions in transportation: Avoid water, which can cause corrosion.

第 15 部分 法规信息
Part 14 Regulatory Information
中华人民共和国安全生产法
Production Safety Law of the People's Republic of China
中华人民共和国环境保护法
Environmental Protection Law of the People's Republic of China

第 16 部分 其他信息
Part 16 Other Information

文件名称	物质安全资料表
制表单位	名称：东莞市钰蓝金属有限公司
	地址/电话：东莞市东城区温塘祠下工业区一路 39 号/0769-22620260
制 表 人	黄玉芬
制表日期	2017 年 7 月 20 日

科虹五金制品有限公司
REPORT OF MATERIAL TEST

DATE: 2007-6-16

Customer:	冲压	Commodity:	C5191 PHOSPHOR BRONZE COPPER(EH)

化 学 成 分 (%) Chemical Analysis Test

Lot No.	size of product		Cu	Sn	P	Zn		Pb	Fe	Al	执行标准	卷重
	Thickness (mm)	Width (mm)										
	standard		余量	5.5-7.0	0.03-0.35	≤0.20	—	≤0.05	≤0.10	—	JIS H 3110	KG
063078	0.20	16/15/14.6	93.91	5.77	0.1607	0.0291	0.0209	0.0034	0.0064	<0.0009		1121.5/1R

物 理 性 能 Mechanical & Physiccal Test

Work No.	size of product		Dimension Test		Tension Teat		Hardness	Grain Size
	Thickness (mm)	Width (mm)	Thickness (mm)	Width (mm)	Tensile Strength	Elongation	HV	(mm)
	standard		±0.01	±0.05	Mpa	%	210-230	—
0614215	0.20	16/15/14.6	OK	OK	647	18	216	

科虹環境關聯物質測試報告管制章

製造商:		Pb Nax 值:	
Lot P/N:		Nax 值:	ok
送樣廠商		測 定	
品 保	55	日 期	07年06月16日
工 程		日 期	07年06月16日

品检员:

制表：张全玲

检测报告
Test Report

报告编号 A2240227719101003E
Report No. A2240227719101003E

报告抬头公司名称 惠州市鼎欣五金电子有限公司
Company Name shown on Report HUIZHOU DINGXIN HARDWARE AND ELECTRONICS CO., LTD
地 址 惠州市博罗县龙溪街道办电镀基地南区C1栋一楼
Address 1ST FLOOR, BUILDING C1, SOUTH ZONE, ELECTROPLATING BASE OFFICE, LONGXI STREET, BOLUO COUNTY, HUIZHOU CITY

以下测试之样品及样品信息由申请者提供并确认
The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

样品名称	金
Sample Name	Gold
样品接收日期	2024.04.24
Sample Received Date	Apr. 24, 2024
样品检测日期	2024.04.24-2024.04.27
Testing Period	Apr. 24, 2024 to Apr. 27, 2024

检测要求 根据客户要求，对所提交样品中的铅(Pb)，镉(Cd)，汞(Hg)，六价铬(Cr(VI))，多溴联苯(PBBs)，多溴二苯醚(PBDEs)，邻苯二甲酸酯(DBP, BBP, DEHP, DIBP)进行测试。
Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

检测依据/检测结果 请参见下页。
Test Method/Test Result(s) Please refer to the following page(s).

批 准
Approved by 郑晴涛
郑晴涛
技术经理 Technical Manager

日 期
Date 2024.04.27

No. R177733792

检测检测认证集团股份有限公司
广东省深圳市宝安区新安街道兴东社区华测检测大楼
Centre Testing International Group Co.,Ltd.
CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

检测报告
Test Report

检测依据 Test Method

测试项目 Test Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	参考IEC 62321-5:2013 Refer to IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	参考IEC 62321-5:2013 Refer to IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	参考IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis
多溴联苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

检测报告
Test Report

检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	003	
铅 Lead (Pb)	N.D.	2 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D. ▼	0.10 μg/cm² (LOQ)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	003	
多溴联苯 Polybrominated Biphenyls (PBBs)		
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	5 mg/kg
三溴联苯 Tribromobiphenyl	N.D.	5 mg/kg
四溴联苯 Tetrabromobiphenyl	N.D.	5 mg/kg
五溴联苯 Pentabromobiphenyl	N.D.	5 mg/kg
六溴联苯 Hexabromobiphenyl	N.D.	5 mg/kg
七溴联苯 Heptabromobiphenyl	N.D.	5 mg/kg
八溴联苯 Octabromobiphenyl	N.D.	5 mg/kg
九溴联苯 Nonabromobiphenyl	N.D.	5 mg/kg
十溴联苯 Decabromobiphenyl	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	003	
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)		
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	5 mg/kg
三溴二苯醚 Tribromodiphenyl ether	N.D.	5 mg/kg
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	5 mg/kg
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5 mg/kg
六溴二苯醚 Hexabromodiphenyl ether	N.D.	5 mg/kg
七溴二苯醚 Heptabromodiphenyl ether	N.D.	5 mg/kg
八溴二苯醚 Octabromodiphenyl ether	N.D.	5 mg/kg
九溴二苯醚 Nonabromodiphenyl ether	N.D.	5 mg/kg
十溴二苯醚 Decabromodiphenyl ether	N.D.	5 mg/kg

检测报告
Test Report

检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	003	
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)		
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

样品/部位描述Sample/Part Description

序号 No.	CTI样品ID CTI Sample ID	描述 Description
1	003	金色镀层 Golden plating

备注: **对于检测铅，镉，汞之样品已消解完全。**

-N.D. = 未检出（小于方法检出限或定量限）

-mg/kg = ppm = 百万分之一

-LOQ = 定量限，六价铬的定量限为0.10 μg/cm²

-▼六价铬浓度小于0.10 μg/cm²，样品未检出六价铬。由于未获知样品的存储条件和生产日期，样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²

-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm². The coating is considered a non-Cr(VI) based coating. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

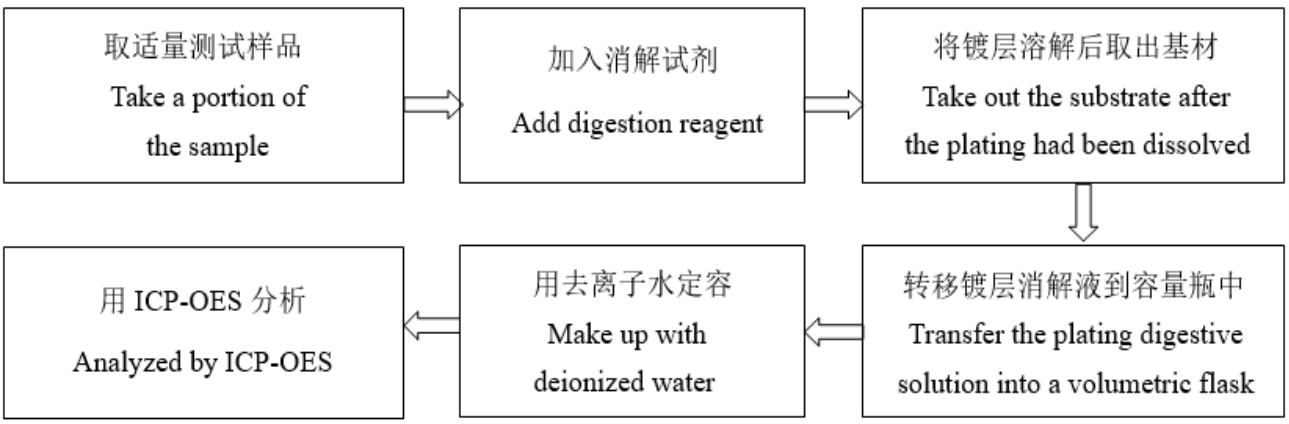
注释: **本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。**

Note: **The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.**

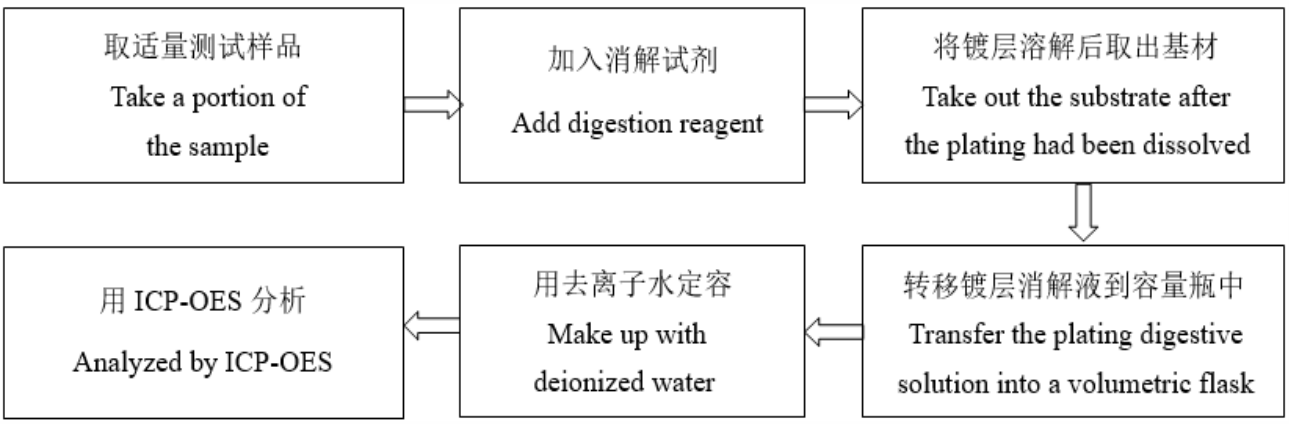
检测报告
Test Report

检测流程 Test Process

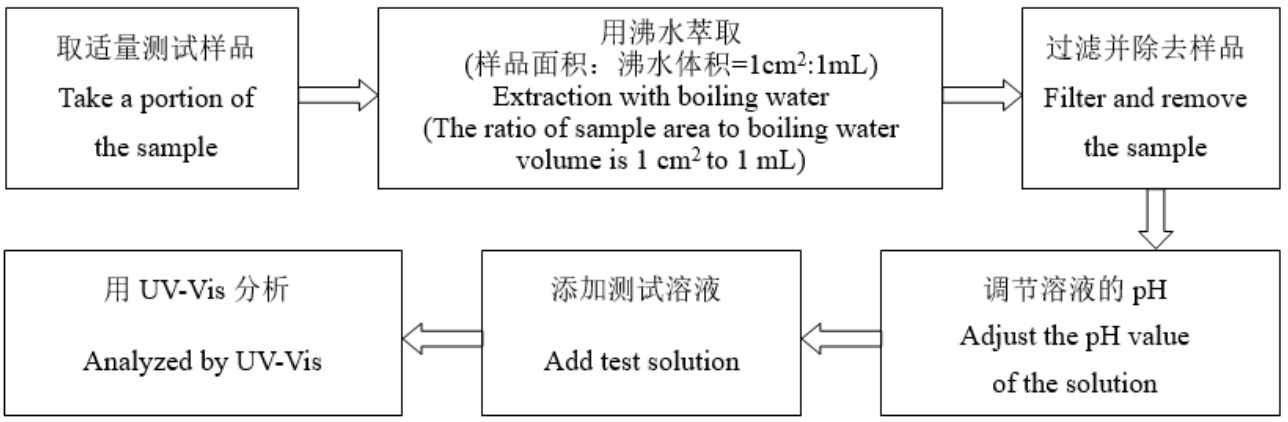
1. 铅(Pb)， 镉(Cd)
   Lead (Pb), Cadmium (Cd)



2. 汞(Hg)
   Mercury (Hg)

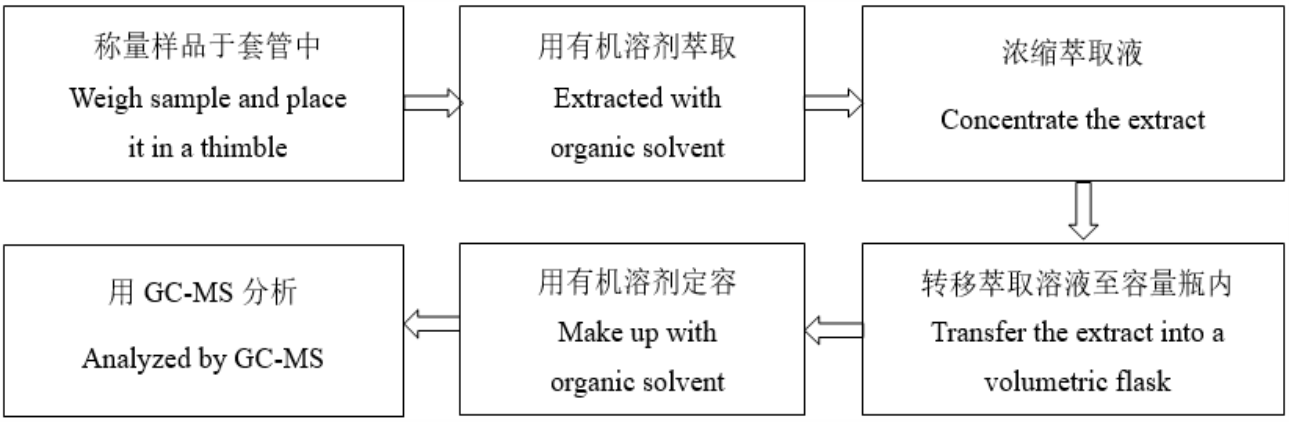


3. 六价铬(Cr(VI))
   Hexavalent Chromium (Cr(VI))



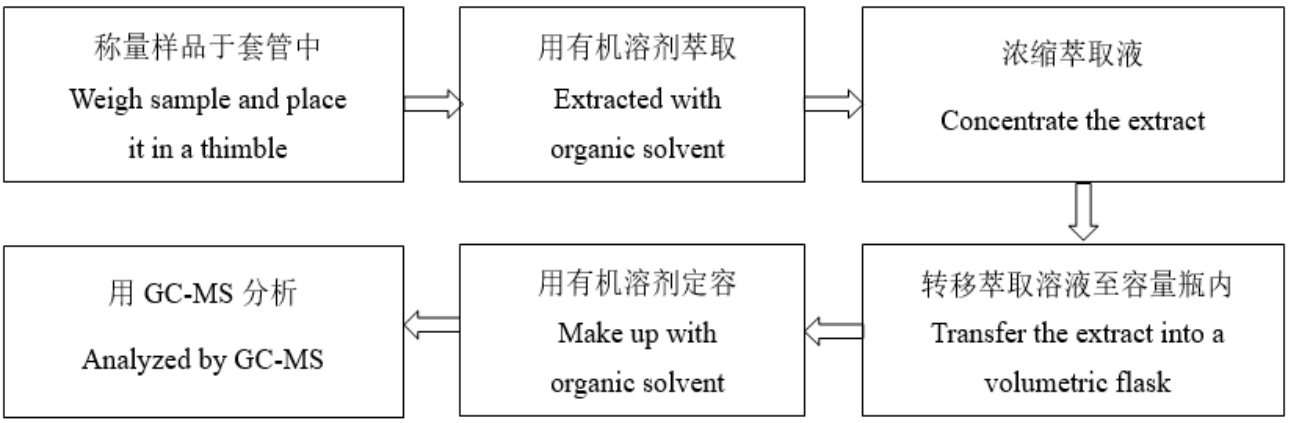
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



5. 邻苯二甲酸酯(DBP， BBP， DEHP， DIBP)

Phthalates (DBP, BBP, DEHP, DIBP)



检测报告
Test Report

样品图片
Photo(s) of the sample(s)



声明Statement：

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效；
   This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 报告抬头公司名称及地址、样品及样品信息由申请者提供，申请者应对其真实性负责，CTI未核实其真实性；
   The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn’t verified;
3. 本报告检测结果仅对受测样品负责；
   The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 除非另有说明，报告参照ILAC-G8:09/2019 / CNAS-GL015:2022使用简单接受(w=0)二元判定规则进行符合性判定;
   Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. 未经CTI书面同意，不得部分复制本报告；
   Without written approval of CTI, this report can’t be reproduced except in full;
6. 如检测报告中的英文内容与中文内容有差异，以中文为准。
   In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

报告结束

*** End of report ***

惠州博罗鼎欣五金電镀廠
Ding-xin Metal & Electronic Factory

物質安全資料表

一、物品与厂商资料

物品名称： 电 层
物品编号：
制造商与供货商名称：博罗鼎欣五金電镀廠
地址：惠州博罗 溪
紧急联络电话：0752-6676690 / 传真电话：0752-6676680

二、成份辨识数据

该产品是 化合物

主要成分	CAS NO.	含量	分类
	----	>97%	----

三、危害辨识数据

分类名称：固体物质
危 性：本品不可燃。 误吞 5mg(CN) ，物料表 尖 部分会刺激到 道壁、胃壁，再往下坠的话可能会刺伤到肠道壁，严重会造成穿孔、胃出血、肠梗 等。且不易排出身体，往往 要外科剖腹将物料拿出。

四、急救措施

吞 入 ：外科剖腹将物料拿出。
最重要症状及危害效应：--------
对急救人员之 护：---------
对医师之提示：--------

五、灭火措施

适用灭火器：--------
灭火时可能遭遇之特殊危害：-------
特殊灭火程序：------
消 人员之特殊 护设备：-------

六、泄漏处理方法：

灭火方法及灭火剂：	
救火时的特殊危 性：	--------
消 人员的特殊保护设备：	-------

七、安全处置与储存方法

处置：------

环境安全　　措施：------

清　措施：------

储存：不可与含氯、氟、王水及氰化物侵化学物质共存放。　能够被水　溶解，形成汞　（这并　化学反应）；

八、暴　　措施

九、物理及化学性质：

　　纯　呈特有的赤　色即　　色。具有耀眼的　属光泽，千年不褪。硬度小，摩氏硬度为 2.5，质地柔软，容易抛光。比重较大，为 17.4～19.3，比同体积的水重 19 倍；密度为 17.4～19.3g/cm3。由于　　的密度大，因而具有可贵的强延展性和　可塑性。1 两　　可打制成 9 平方米的　箔；熔融后，可拉制成 8000 米　的细　丝。　　的导电率　。

　　的熔点和沸点都很　。熔点为 1063℃；沸点为 2966℃。在　温下具有很　的稳定性。虽然经过　温冶炼，仍然能够发出耀眼的　属光泽而不失其本色。　　在空气中和　温下，都不与其它　属化合。　　耐腐蚀性强。　了“王水”以外，任何化学物质对它都毫无影响。

十、安定性及反应性

安定性：安定

危害之聚合：------

应避免之状况：-------

危害分解物：------一

十一、毒性资料：

无毒性

十二、生态反应

十三、废弃处置方法

废弃处置方法：专业机构回收循环利用

十四、运送资料

运送品名：------
联合国编号：------
危　等级：-------
标签：-------

十五、法规资料

适用法规：-------

十六、其他资料：

参考文献	无	
制造单位	名称：　欣五　电子厂	
	地址/电话：　惠州博罗　溪　电话：0752-6676690--113	
制 表 人	职称：　品保课主管	姓名：（签章）　王君强
制表日期	2019/4/3	

CTI 华测检测

检测报告
Test Report

报告编号 A2240227719101002E
Report No. A2240227719101002E

报告抬头公司名称 惠州市鼎欣五金电子有限公司
Company Name shown on Report HUIZHOU DINGXIN HARDWARE AND ELECTRONICS CO., LTD
地 址 惠州市博罗县龙溪街道办电镀基地南区C1栋一楼
Address 1ST FLOOR, BUILDING C1, SOUTH ZONE, ELECTROPLATING BASE OFFICE, LONGXI STREET, BOLUO COUNTY, HUIZHOU CITY

以下测试之样品及样品信息由申请者提供并确认
The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

样品名称	镍
Sample Name	nicke
样品接收日期	2024.04.24
Sample Received Date	Apr. 24, 2024
样品检测日期	2024.04.24-2024.04.27
Testing Period	Apr. 24, 2024 to Apr. 27, 2024

检测要求 根据客户要求，对所提交样品中的铅(Pb)，镉(Cd)，汞(Hg)，六价铬(Cr(VI))，多溴联苯(PBBs)，多溴二苯醚(PBDEs)，邻苯二甲酸酯(DBP，BBP，DEHP，DIBP)进行测试。
Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) in the submitted sample(s).

检测依据/检测结果 请参见下页。
Test Method/Test Result(s) Please refer to the following page(s).

批 准
Approved by

郑晴涛
技术经理 Technical Manager

日 期
Date 2024.04.27

No. R177733792

检测检测认证集团股份有限公司
广东省深圳市宝安区新安街道兴东社区华测检测大楼
Centre Testing International Group Co.,Ltd.
CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

检测报告
Test Report

检测依据 Test Method

测试项目 Test Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	参考IEC 62321-5:2013 Refer to IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	参考IEC 62321-5:2013 Refer to IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	参考IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis
多溴联苯 Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

检测报告
Test Report

检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	002	
铅 Lead (Pb)	N.D.	2 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D. ▼	0.10 μg/cm² (LOQ)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	002	
多溴联苯 Polybrominated Biphenyls (PBBs)		
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	5 mg/kg
三溴联苯 Tribromobiphenyl	N.D.	5 mg/kg
四溴联苯 Tetrabromobiphenyl	N.D.	5 mg/kg
五溴联苯 Pentabromobiphenyl	N.D.	5 mg/kg
六溴联苯 Hexabromobiphenyl	N.D.	5 mg/kg
七溴联苯 Heptabromobiphenyl	N.D.	5 mg/kg
八溴联苯 Octabromobiphenyl	N.D.	5 mg/kg
九溴联苯 Nonabromobiphenyl	N.D.	5 mg/kg
十溴联苯 Decabromobiphenyl	N.D.	5 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	002	
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)		
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	5 mg/kg
三溴二苯醚 Tribromodiphenyl ether	N.D.	5 mg/kg
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	5 mg/kg
五溴二苯醚 Pentabromodiphenyl ether	N.D.	5 mg/kg
六溴二苯醚 Hexabromodiphenyl ether	N.D.	5 mg/kg
七溴二苯醚 Heptabromodiphenyl ether	N.D.	5 mg/kg
八溴二苯醚 Octabromodiphenyl ether	N.D.	5 mg/kg
九溴二苯醚 Nonabromodiphenyl ether	N.D.	5 mg/kg
十溴二苯醚 Decabromodiphenyl ether	N.D.	5 mg/kg

检测报告
Test Report

检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL
	002	
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)		
邻苯二甲酸二丁酯 Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
邻苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
邻苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

样品/部位描述Sample/Part Description

序号 No.	CTI样品ID CTI Sample ID	描述 Description
1	002	银色镀层 Silvery plating

备注: **对于检测铅，镉，汞之样品已消解完全。**

-N.D. = 未检出（小于方法检出限或定量限）

-mg/kg = ppm = 百万分之一

-LOQ = 定量限，六价铬的定量限为0.10 μg/cm²

-▼六价铬浓度小于0.10 μg/cm²，样品未检出六价铬。由于未获知样品的存储条件和生产日期，样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL or LOQ)

-mg/kg = ppm = parts per million

-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 μg/cm²

-▼The sample is negative for Cr(VI) − The Cr(VI) concentration is below 0.10 μg/cm². The coating is considered a non-Cr(VI) based coating. Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

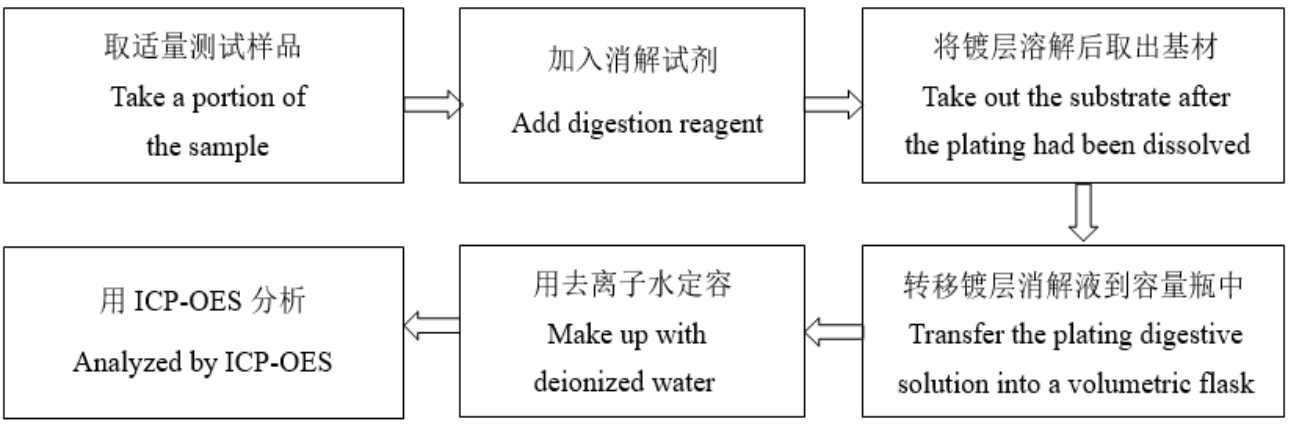
注释: **本报告中的数据结果供科研、教学、企业内部质量控制、企业产品研发等目的用。**

Note: **The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.**

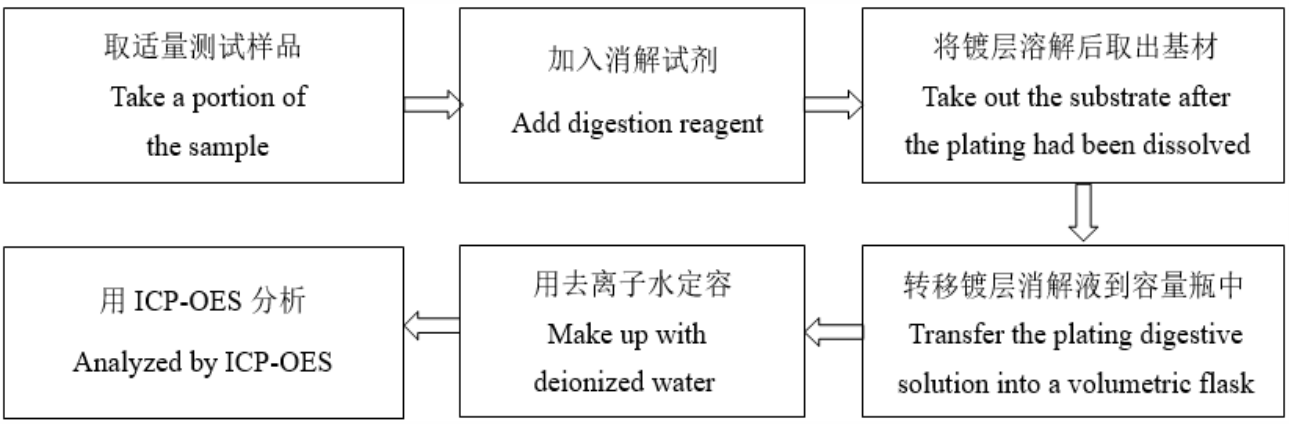
检测报告
Test Report

检测流程 Test Process

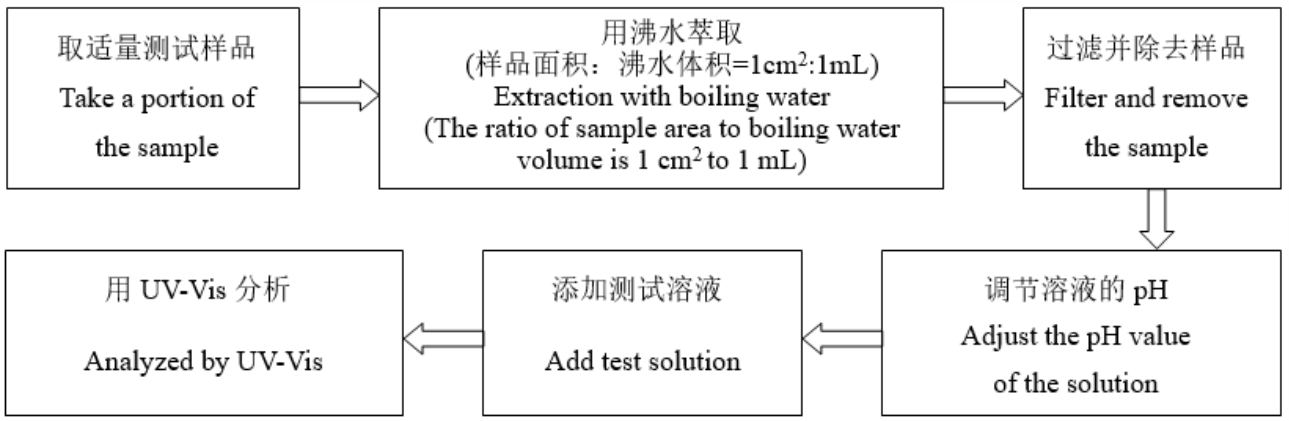
1. 铅(Pb)， 镉(Cd)
   Lead (Pb), Cadmium (Cd)



2. 汞(Hg)
   Mercury (Hg)

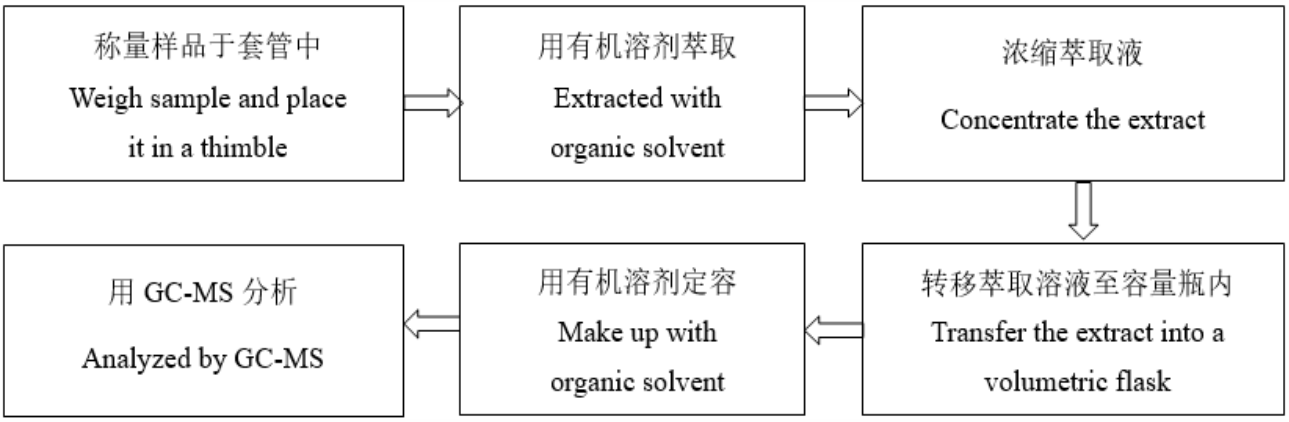


3. 六价铬(Cr(VI))
   Hexavalent Chromium (Cr(VI))



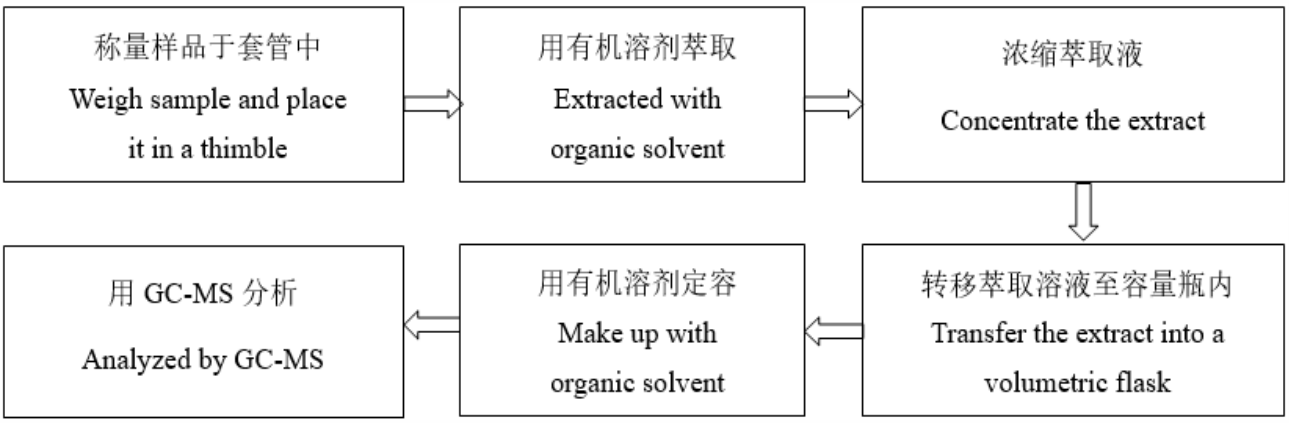
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



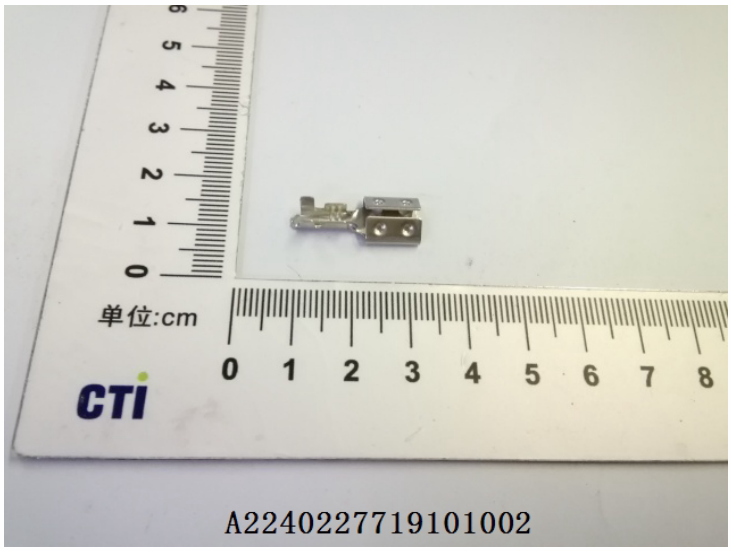
5. 邻苯二甲酸酯(DBP， BBP， DEHP， DIBP)

Phthalates (DBP, BBP, DEHP, DIBP)



检测报告
Test Report

样品图片
Photo(s) of the sample(s)



声明Statement：

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效；
   This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 报告抬头公司名称及地址、样品及样品信息由申请者提供，申请者应对其真实性负责，CTI未核实其真实性；
   The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn’t verified;
3. 本报告检测结果仅对受测样品负责；
   The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 除非另有说明，报告参照ILAC-G8:09/2019 / CNAS-GL015:2022使用简单接受(w=0)二元判定规则进行符合性判定;
   Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. 未经CTI书面同意，不得部分复制本报告；
   Without written approval of CTI, this report can’t be reproduced except in full;
6. 如检测报告中的英文内容与中文内容有差异，以中文为准。
   In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

报告结束

*** End of report ***

惠州博罗鼎欣五金電镀廠
Ding-xin Metal & Electronic Factory

物質安全資料表

一、物品与厂商资料

物品名称：　电　层
物品编号：
制造商与供货商名称：博罗鼎欣五金電镀廠
地址：惠州博罗　溪
紧急联络电话：0752-6676690 / **传真电话：**0752-6676680

二、成份辨识数据

主要成分	CAS　NO.	含量	分类
	7440-02-0	>99%	---

三、危害辨识数据

分类名称：固体物质
危　性：9(自燃物品) 一、健康危害 侵入途径：吸入、　入。健康危害：可引起　皮炎，又称　“痒疹”。皮肤剧痒，后出现丘疹、疱疹及红斑，重者化脓、溃烂。　期吸入　粉可致呼吸道刺激、慢性　炎，甚至发生　中　穿孔。尚可引起变态反应性肺炎、支气管炎、哮喘。

四、急救措施

吸入　：迅速脱离现场至空气新　处。保持呼吸道通畅。如呼吸困　，给输氧。如呼吸停止， 即进行人工呼吸。就医。
最重要症状及危害效应：　其粉体化学活性较　，暴　在空气中会发生氧化反应，甚至自燃。遇强酸反应，放出氢气。粉尘可燃，能与空气形成爆炸性混合物。
对急救人员之　护：可能接触其粉尘时，应该佩戴自吸过滤式　尘口罩。
对医师之提示：----

五、灭火措施

适用灭火器：------
灭火时可能遭遇之特殊危害：---
特殊灭火程序：------
消　人员之特殊　护设备：消　人员必　佩戴过滤式　毒　具(全　罩)或　离式呼吸器、穿全身　火　毒服，在上　处灭火。灭火剂：干粉、砂土。

六、泄漏处理方法：

灭火方法及灭火剂：	
救火时的特殊危　性：	切断火源。不要直接接触泄漏物。
消　人员的特殊保护设备：	建议应急处理人员戴自吸过滤式　尘口罩，穿　毒服。使用无火花工具收　于干燥、洁净、有盖的容器中。转移回收。

七、安全处置与储存方法

处置：----   **环境安全　　措施：**----   **清　措施：**----
储存：----

八、暴　　措施

九、物理及化学性质：

白色坚硬　属

熔 点:	1453℃ 沸点：2732℃
密 度:	相对密度(水=1)8.90
蒸汽压:	1810℃
溶解性:	不溶于浓硝酸，溶于稀硝酸
稳定性:	稳定
外观与性状:	
用 途:	用于电子管材料、加氢**催化剂**及　盐制造

十、安定性及反应性

安定性：安定
危害之聚合：----
应避免之状况：----
危害分解物：----

十一、毒性资料：

没有急性毒性

十二、生态反应

十三、废弃处置方法

废弃处置方法： ------

十四、运送资料

运送品名： ------
联合国编号：------
危　等级： ------
标签：-------

十五、法规资料

适用法规：-------

十六、其他資料：

参考文献	无	
制造单位	名称： 欣五　电子厂	
	地址/电话： 惠州市博罗县　溪　　华路　电话：0752-6676690--113	
制 表 人	职称： 品保课主管	姓名：（签章）王君强
制表日期	2019/4/3	

興竣豪科技(深圳)有限公司

產品貯存規範書

1. **目的**:

為使客戶能知悉我司所生產的成品的貯存條件,從而確保產品的品質發生變質,特製訂此規範書。

2. **範圍**:竣豪生產的所有成品。

3. **權責**:竣豪品管部主辦,相關部門協辦。

4. **內容重點**:

4.1 產品組件

4.1.1 五金類. (PIN針 端子)

4.1.2 塑膠件 (NY-6T. NY-9T. NY-46. NY-66. LCP. PBT. PPS. PC. ABS. HTN)

4.2貯存環境

4.2.1溫度控制在20℃-25℃之間.

4.2.2相對濕度控制在60%以下

4.2.3空气乾淨,無酸,鹼,鹽等腐蝕性介質離子

4.3防護措施

4.3.1 密封包裝確保鍍層表面無氧化及發黑發白現象.

4.3.2 在產品上線時.當日使用不完之產品需按原包裝方式包裝.且貯存環境參照4.2.餘料并建議10日內使用完畢.

4.4建議上線環境溫度.

4.4.1 因塑膠特性關系.吸收水份較快.所以貯存環境條件非常重要.

4.4.2 產品上線時請保持常溫25℃以下.時間控制在8小時以內.

在以上條件基礎上,產品自竣豪交貨日算起,貯存期為鍍金,鍍銀產品為半年,鍍錫產品(包裝袋內加放干燥劑)為三個月,在此貯存期限內若品質發生劣化.由竣豪負責處理.如未在此貯存條件下或超過貯存時間,產品發生變異,敬請客戶自行負責.如有不便,望諒解!

衷心感謝尊敬的客戶能予以配合!

核準: **審核**: **制定**: 張紅蘭

管理体系认证
注册证书

兹证明，以下组织：

兴竣豪科技（深圳）有限公司

中国广东省深圳市龙华区福城街道福民社区悦兴路63号鹏发第一工业园2号 201、301

的管理体系，符合以下标准要求并予以注册：

ISO 14001:2015

此管理体系适用于：

电子连接部件（排针、排座、板对线，板对板）的生产

统一社会信用代码：
91440300570005153X

证书编号：
121506003

首次认证日期：
2015年07月20日

认证决定日期：
2024年07月14日

签发日期：
2024年07月14日

有效期至：
2027年07月19日

Calin Moldovean
President, Business Assurance

Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom

Intertek Certification Limited
是 UKAS 认可的认证机构，
注册号为 014

对于此证书的签署，Intertek仅对获证组织承担认证协议所规定的义务，而不对其他组织承担任何义务。此证书的有效性基于获证组织能够依照Intertek的体系认证要求使其体系得到保持。可通过电子邮件certificate.validation@intertek.com或用智能手机扫描该代码对证书有效性进行确认。此证书的所有权归属为Intertek，在必要时证书持有者应按要求归还证书。
获证组织必须定期接受监督审核并经审核合格方可保持证书年度有效。证书信息可在国家认监委官网http://www.cnca.gov.cn查询。

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

Superior Tech (Shenzhen) Co., Ltd.

201、301, No. 2, Pengfa First Industrial Park, No. 63, Yuexing Road, Fumin Community, Fucheng, Longhua District, Shenzhen, Guangdong Province, P.R. China

has been registered by Intertek as conforming to the requirements of:

ISO 14001:2015

The management system is applicable to:

Manufacture of Electronic Connection Unit (Pin Headers, Female Headers, Wire to Board ， Board to Board)

Unified Social Credit Identifier:
91440300570005153X

Certificate Number:
121506003

Initial Certification Date:
20 July 2015

Date of Certification Decision:
14 July 2024

Issuing Date:
14 July 2024

Valid Until:
19 July 2027

Calin Moldovean
President, Business Assurance

Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom

Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organisation maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.
The annual validity of the certificate can also be checked through the website http://www.cnca.gov.cn of CNCA in China.