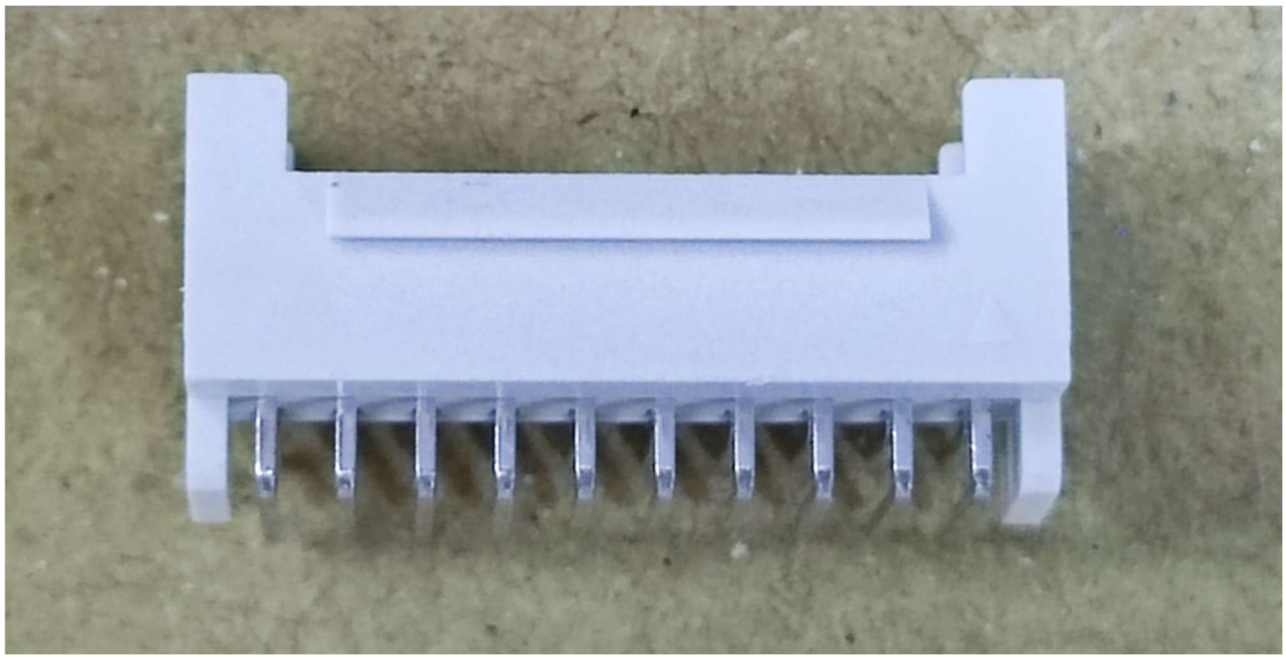
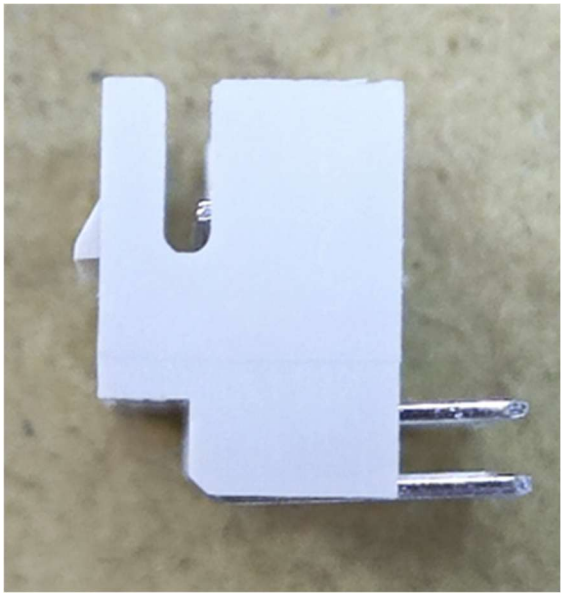
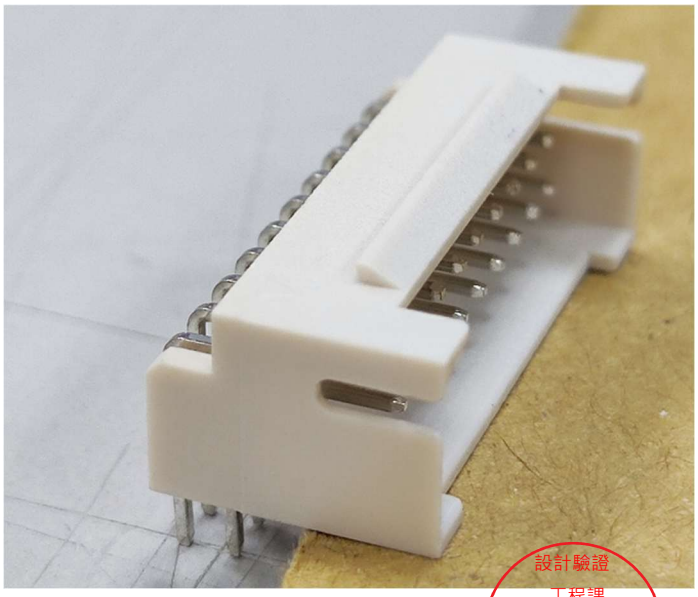
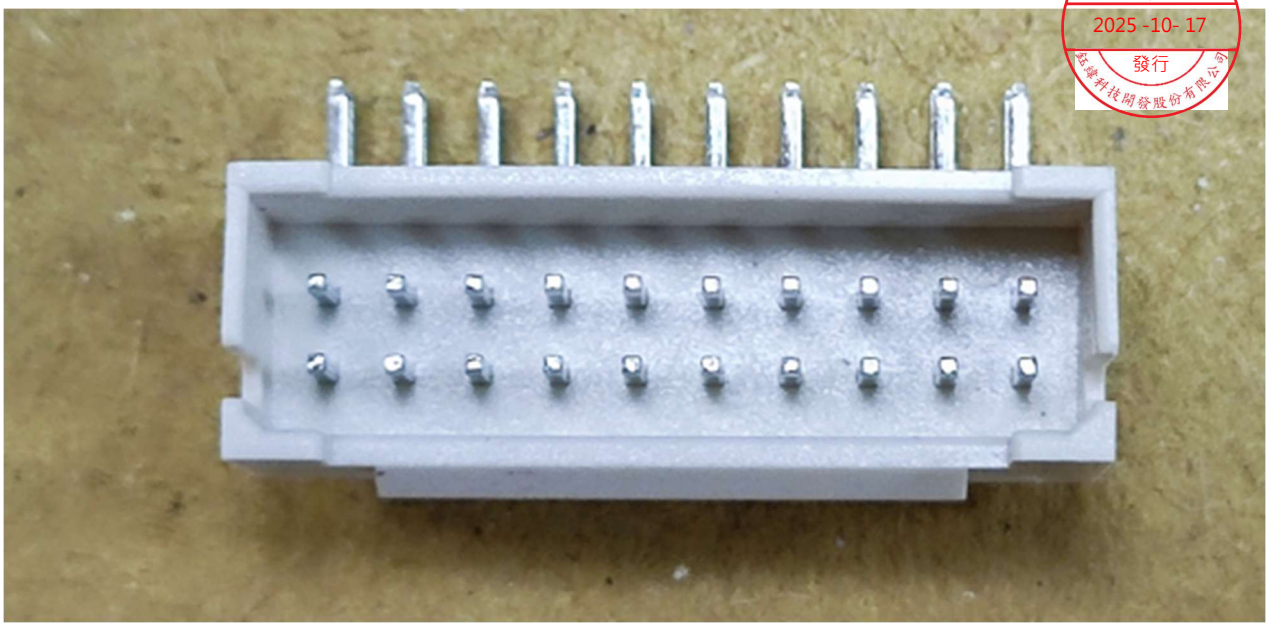








設計驗證
工程課
2025 -10- 17
發行
鈺鐸科技開發股份有限公司

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 PH2.0 R/A DIP
Customer's P/N:	3FM02009610 (F0331)
Superior's P/N:	WRDD-RD020T2OWEA-D59
Date:	2025/09/25
Document No:	AVL-509-0003

設計驗證 工程課 2025 -10- 17 發行 鈺緯科技開發股份有限公司

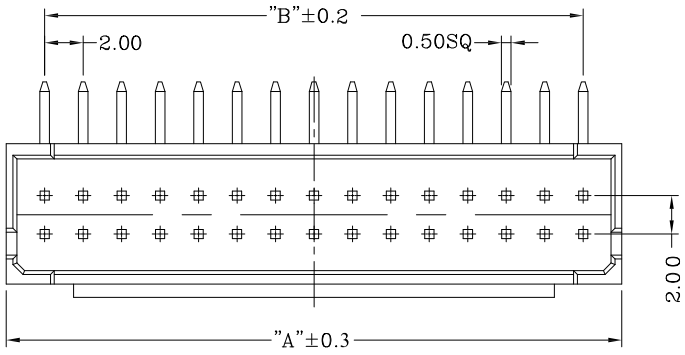
出 圖 DRAWING		
發行 MADE	檢查 CHECKED	承認 APPROVED
Jacky	Tom	Tom
日期 DATE:2025.09.25		

承 認 印 CUSTOMER APPROVE
竣豪電子股份有限公司 TEL:2278-7316 FAX:2278-7301
日期 DATE:

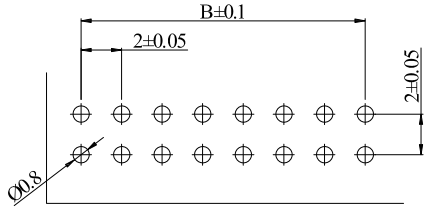
竣豪電子股份有限公司 SUPERIOR TECH CO.,LTD.
地址:新北市三重區重新路5段609巷16號6樓之2
Tel:886-2-2278-7316 Fax:886-2-2278-7301

(Q2-R01-11A)

REV.	DESCRIPTION	DATE
A	New Drawing	2025/08/12
B	圖面更新	2025/09/05



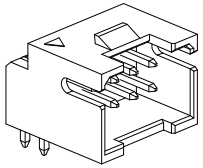
#1

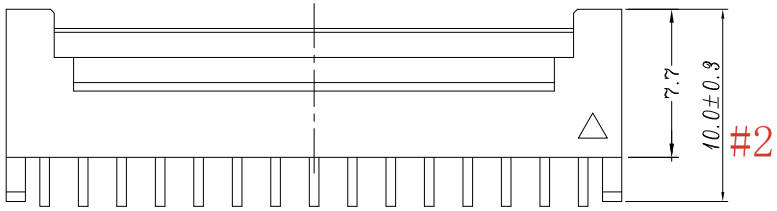


P C B LAYOUT

Material: Nylon 46, UL 94V-0
Conductor: Brass, Tin-Plated
Available: 8~60P
Current Rating: 3A AC/DC
Voltage Rating: 250V AC/DC
Insulation Resistance: 1000MΩ Min.
Contact Resistance: 20mΩ Max.
Dielectric Withstanding: 800V AC/minute
Operating Temperature: -25°C ~ 85°C

Circuits	Dim. A	Dim. B
8	10.0	6.00
10	12.0	8.00
12	14.0	10.00
14	16.0	12.00
16	18.0	14.00
18	20.0	16.00
20	22.0	18.00
22	24.0	20.00
24	26.0	22.00
26	28.0	24.00
28	30.0	26.00
30	32.0	28.00
32	34.0	30.00
34	36.0	32.00
36	38.0	34.00
38	40.0	36.00
40	42.0	38.00
60	62.0	58.00





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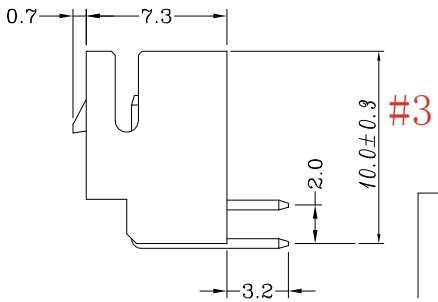

#3

W R D D - R D X X X T 2 O W E A - D59

- PCB Contact Type: R 90° DIP
- Housing Type: D Dual Row
- Number of Contact contacts: 08~60
- Contact Plating: T2 Tin Plated
- O Without "K"
- Base Color: W White
- Insulation: E NY-46
- Packing: A PE Bag
- Series No.

設計驗證 工程課 2025 -10- 17 發行 紅蘭科技開發股份有限公司

Unless otherwise specified, all decimal dimensions(未標註公差值):±0.20mm.

RoHS compliant

竣豪電子股份有限公司 Superior Tech Co., Ltd.	General Tolerance	TITLE	WAFER PH2.0 R/A DIP	
	X. ± 0.3	DRAWN Jacky	DATE 09-05-25'	NO. D076
	.X ± 0.2			
	.XX ± 0.15	CHECK Tom	DATE 09-05-25'	PART NO. WRDD-RDXXXT2OWEA-D59
	.XXX ± 0.1			
REV. B / UNIT mm / SCALE 1:1	角度 ± 5°	APPROVED Tom	DATE 09-05-25'	CUSTOMER NO. 3FM02009610(F0331)

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

SPECIFICATION AND PERFORMANCE
TALBE OF CONTENT

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Rev	Date	Description	Edited by	Approvals
A	2002/09/12	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 P2.00mm** .

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:	250V AC/DC
B. Current:	3.0A 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.	1,000MΩ 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: 800Vac 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: 400gf / 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: 8 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.: CANEC24027265214 **Date:** Dec 14, 2024

Client Name: SHENZHEN BAO SHI DA PLASTIC PRODUCTS CO.,LTD

Client Address: NO.4-3 CHUANGYE 2ROAD JIANG BIAN INDUSTRY PARK,SONG GANG TOWN,BAOAN DISTRICT,SHENZHEN

Sample Name: PA46#NC

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

SGS Job No.: SZP24-053297

Sample Receiving Date: Dec 04, 2024

Testing Period: Dec 04, 2024 ~ Dec 14, 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

Kelly Qu

Kelly Qu
Approved Signatory

scan to see the report

9A6DFECE

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Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663
t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	A10	CAN24-0272652-0001.C010	Beige plastic grains

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 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A10
Lead (Pb)	1000	mg/kg	2	17
Mercury (Hg)	1000	mg/kg	2	ND
Cadmium (Cd)	100	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	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

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中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com
Member of the SGS Group (SGS SA)

Test Item(s)	Limit	Unit(s)	MDL	A10
Octabrominated diphenyl ether (OctaBDE)	-	mg/kg	25	ND
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) 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.

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.

检验检测专用章 Inspection & Testing Services

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Technical Services Technical Laboratory

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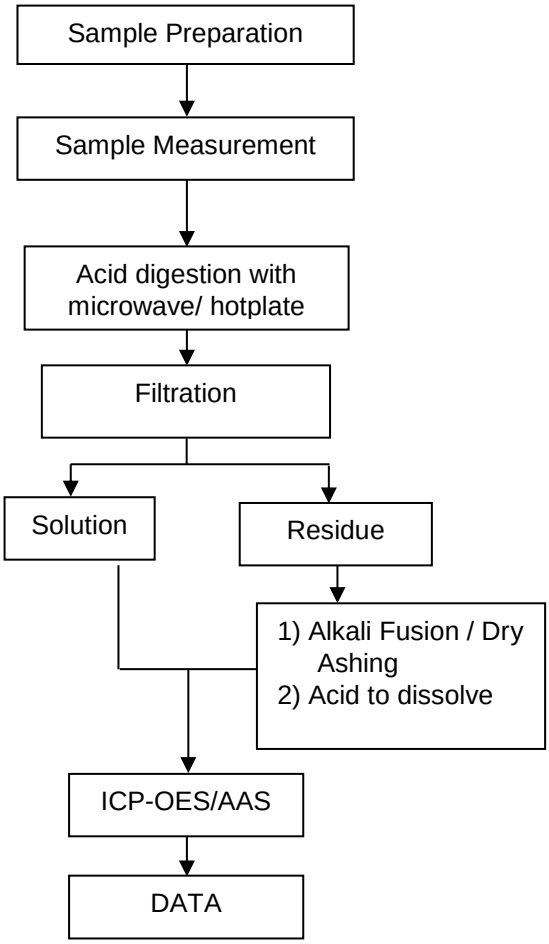
ATTACHMENTS

Elements Testing Flow Chart

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



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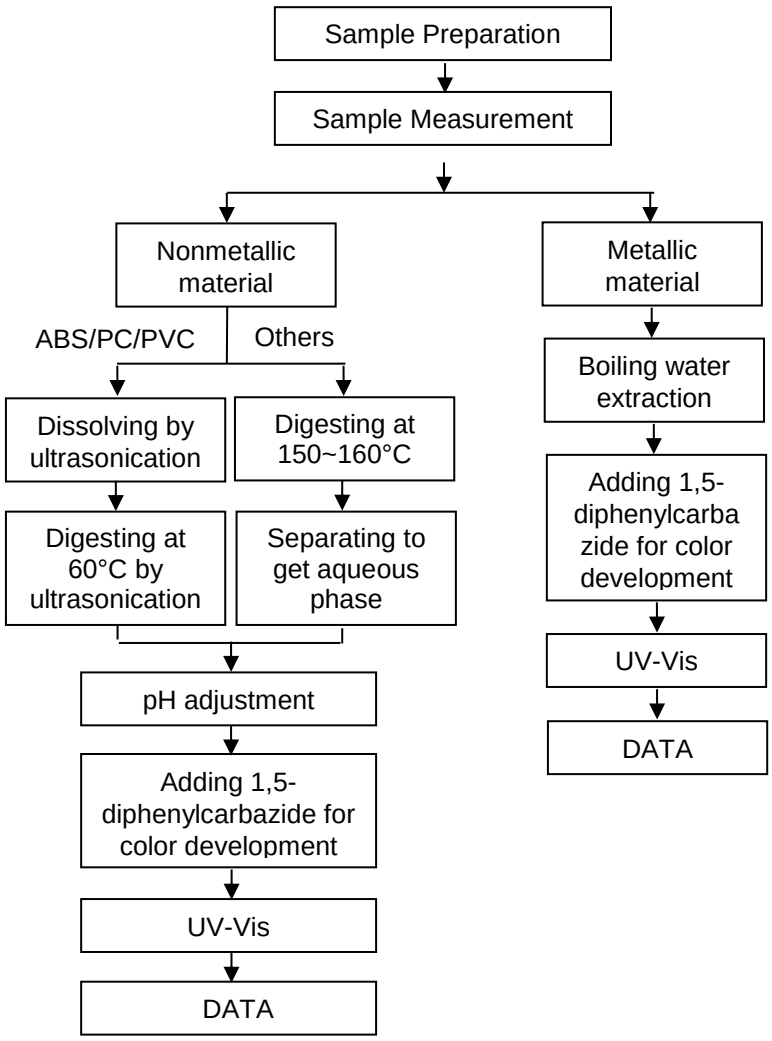
ATTACHMENTS

Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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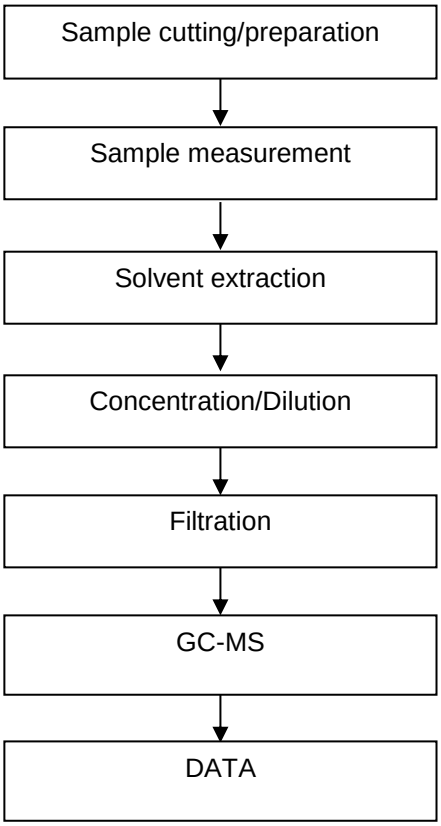
ATTACHMENTS

PBB/PBDE/Phthalates Testing Flow Chart



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Sample Photo:



CAN24-0272652-0001.C010

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*** End of Report ***

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Safety Data Sheet

DSM

complies with: directive 91/155/EEC
ISO 11014-1:Safety data sheet for chemical products.

revision: 2.0
revision date: 02/02/1998
date of issue: 26/02/1998

p

1. Product and company identification

Product name: Stanyl®

Product code: TE250F6

Manufacturer: DSM Engineering Plastics
P.O. Box 43,
6130 AA Sittard
The Netherlands

Emergency number: The Netherlands +31 (0)46 4 76 55 55

2. Composition/Information on ingredients

This chemical product is a preparation

Chemical nature: (poly)amide PA 46

CAS number: 50327-22-5

Components contributing to the hazard:

The material contains Sb_2O_3 as a synergist with an average content of max. 7%. Sb_2O_3 is classified as a harmful (Xn) substance with a risk phrase R40 carcinogen class 3. However, the Sb_2O_3 is embedded in an impervious matrix of polymer and is therefore less biological available than the free Sb_2O_3 (see also Section 15).

3. Hazards identification

Most important hazards:

Hazard warning not required

Specific hazards:

Vapour and fumes released at elevated processing temperatures may be irritant for the eyes, the nose, the throat and the respiratory tract and in case of overexposure may cause nausea and headache.

The material is not classified as being a dangerous preparation according to the EEC-Directive 88/379 and the subsequent amendments. See also Section 15.

4. First-Aid measures

Inhalation:

When fumes of molten material have been inhaled;
- Move person to fresh air as quickly as possible
- rest in half upright position
- loosen clothing
- keep warm

In case of respiratory problems move person to first aid station for medical treatment.

Skin contact:

Any molten material on the skin/burns should be cooled (off) as quickly as possible by means of cold water. Cover the wound with sterile cloth and move person to first aid station or hospital for medical treatment. Attention: never pull off the molten material from the wound.

Eye contact:

Any material entering the eye should be flushed out with copious volumes of water.

Ingestion:

No danger of toxicity, this material is biologically inactive (see also Section 11).

5. Fire-fighting measures

Extinguishing media:

Water, water/foam, CO_2, ABC fire extinguisher powder.

Specific Hazards:

Treat the material as a solid that can burn. Moulded parts or solid granules generally burn slowly with flaming drips.

In case of fire carbon monoxide, ammonia, volatile antimony compounds and brominated organic compounds are released in addition with traces of polybromo-dibenzodioxines and polybromo-dibenzofuranes may originate from the brominated organic flameretardant.

Protection for the fire-fighters:

Do not approach fire in confined space without positive pressure self breathing apparatus and full bunker gear: bunker coats, helmet with face shield, gloves, rubberboots.

6. Accidental release measures

Personal precautions:

- Apply ample grounding with respect to dust explosion danger caused by released dust from granulate supply (filters): see section 7.
- Protection of skin/eye/hand: see section 8.

Environmental precautions:

Disposal considerations- see section 13.

Cleaning up methods:

Shovel or sweep up, use especially industrial vacuum cleaner to suck possible fines/dust. Avoid generating dust clouds. Put into containers for reclaiming or disposal.

7. Handling and storage

Handling

Technical measures:

Make provisions for sufficient ventilation and local exhaust at vent, nozzle and ejected melt.

Precautions:

Dust and processing fumes must be removed by effective exhaust ventilation.

For safe polymer processing the material should have a water content <2%. In order to prevent a drop in material properties the water content during processing should be <0.1%.

Storage

Technical measures and storage conditions:

The material should be stored on a dry place.

Incompatible products:

Stack pallets only two high when storing in order to prevent collapsing.

8. Exposure controls/personal protection

Control parameters:

Threshold Limit Value (TLV): a provisional TLV (TWA 8 hours) is advised in accordance with the TLV of non-toxic nuisance dust:
-10 mg/m^3 for total dust.
- 5 mg/m^3 for respirable dust.

Personal protective equipment:

- Respiratory protection: when TLV is accidentally exceeded see section 7 (prevention dust generation).

- Hand protection: when handling a hot melt, heat resistant gloves should be worn (e.g. when purging a processing machine).

- Eye protection: when handling a hot melt, heat resistant face shields should be worn (e.g. when purging a processing machine).

- Skin and body protection: the use of apron, boots and/or full protective suit is not prescribed here; it is up to the decision of the processor.

Hygiene measures:

Adequate washing facilities, with supplies of mild soap and hand cleanser should be available at all working locations. Solvents should never be used as hand cleansers. Smoking, eating and drinking in working and storage area's should be prohibited.

9. Physical and chemical properties

Physical state	: solid, at 20°C.
Form	: granulate.
Colour	: natural opaque, dependent on added pigment.
Density	: > 1.0 g/cm^3.
Melting point/range	: 295°C.
Odour	: no special odour.
Solubility in water	: insoluble.
Decomposition Temp.	: > 350°C.
Flashpoint	: > 375°C.
Auto Ignition Temp.	: > 420°C.
Dust Explosive Properties:	
Lower Explosion Limit (LEL)	: < 10g/m^3.
Minimum Ignition Temp.	: 410°C.
Dust Explosion Class (st)	: 1

10. Stability and reactivity

Stability:

The material is chemically unreactive. Under certain conditions however hazardous reactions can take place.

Conditions to be avoid:

Temperatures >340° C and/or long residence times should be avoided since thermal degradation occurs.

Materials to avoid:

Strong oxidising agents.

Hazardous decomposition products:

At processing temperatures some degree of thermal degradation will occur. Although highly dependent on temperature and environmental conditions, traces of a variety of toxic and/or irritating gases may be evolved, e.g. cyclopentanone, ammonia and organic nitrogen compounds such as diaminobutane, pyrrole and pyrroline and brominated organic compunds.
Under normal processing conditions, the concentrations are extremely low and with the health and safety information available these species are not considered to impose any hazard at the concentration level found.

11. Toxicological information

Acute toxicity:	None (LD_{50} oral rat >5000 mg/kg)
Local effects:	The material appears to be a non-toxic substance in standard toxicological and ecotoxicological tests and is regarded as biologically inactive.

12. Ecological information

Persistence/degradability:	very low UV degradability.
Ecotoxicity:	no indication that this material is being a risk to the environment.
Aquatic toxicity:	insoluble non toxic solid material (no water hazard).

13. Disposal Considerations

This material - as well as the packaging there off - presents no danger regarding toxicological and/or ecological considerations. It can be burnt in a controlled way or be disposed of via Landfill, or it can be recycled for - possibly less critical - non food applications.

Note: Additional national or regional provisions may be in force within this matter.

14. Transport information

General precautions Keep this material dry during transport.

Special precautions No special precautions have to be met.

This material is not classified according to the recommendations of the UN (8. edition) on the transport of dangerous goods.

15. Regulatory information

Labelling according to EEC directive 88/379/EEC and subsequent amendments is not required. Additional national legislation may be in force in this matter.

EEC classification: No dangerous preparation.

R(isk) phrases: N.a.

Polyamide 46 is TSCA registered under number 50327-77-0

16. Other information

None of the materials and/or products referenced herein should be used and/or applied in any product, device or material used or for use as human body implant or otherwise within the human body.

* represents changes made to the document since the last revision date of the document.

Measurements by an independent German institute have shown that the material is in compliance with the severest formulation of the so-called Dioxine Ordinance (published January 21st 1993)[1)].

[1)] *Verordnung zur Ausweitung der Verbote von Stoffen, Zubereitungen und Erzeugnissen, die bestimmte polyhalogenierte Dibenzo-p-dioxine (PHDD) und bestimmte polyhalogenierte Dibenzofurane (PHDF) enthalten.*

For information on material safety contact:

DSM Engineering Plastics
Technical Marketing
P.O.Box 604
6160 AP Geleen
The Netherlands
Tel +31(0) 46 4 76 12 16
Fax +31(0) 46 4 76 07 96

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Stanyl® TE250F6

性能

PA46-GF30 FR(17)
30% 玻璃加固, 热稳定, 阻燃剂

性能	典型资料	单位	测试方法
流变性能	**干/ 湿**		
模塑收缩率(平行)	**0.4 / ***	%	Sim. to ISO 294-4
模塑收缩率(垂直)	**1.1 / ***	%	Sim. to ISO 294-4
机械性能	**干/ 湿**		
拉伸模量	**12000 / 8000**	MPa	ISO 527-1/-2
拉伸模量 (120 ° C)	**7500**	MPa	ISO 527-1/-2
拉伸模量 (160 ° C)	**6200**	MPa	ISO 527-1/-2
断裂应力	**180 / 125**	MPa	ISO 527-1/-2
断裂应力 （120 ° C)	**105**	MPa	ISO 527-1/-2
断裂应力(160 ° C)	**95**	MPa	ISO 527-1/-2
断裂伸长率	**2.5 / 3.5**	%	ISO 527-1/-2
断裂应变(120 ° C)	**4**	%	ISO 527-1/-2
断裂应变(160 ° C)	**4**	%	ISO 527-1/-2
弯曲模量	**11000 / 7300**	MPa	ISO 178
弯曲模量 (120 ° C)	**6500**	MPa	ISO 178
弯曲模量 (160 ° C)	**5000**	MPa	ISO 178
无缺口简支梁冲击强度(+23 ° C)	**60 / 60**	kJ/m²	ISO 179/1eU
无缺口简支梁冲击强度(-30 ° C)	**50 / 50**	kJ/m²	ISO 179/1eU
简支梁缺口冲击强度(+23 ° C)	**11 / 11**	kJ/m²	ISO 179/1eA
简支梁缺口冲击强度(-30 ° C)	**10 / 10**	kJ/m²	ISO 179/1eA
悬臂梁缺口冲击强度(23 ° C)	**11 / 11**	kJ/m²	ISO 180/1A
悬臂梁缺口冲击强度(-40 ° C)	**11 / 11**	kJ/m²	ISO 180/1A
热性能	**干/ 湿**		
熔融温度(10 ° C/min)	**295 / ***	°C	ISO 11357-1/-3
热变形温度(1.80 MPa)	**290 / ***	°C	ISO 75-1/-2
线膨胀系数(平行)	**0.25 / ***	E-4/°C	ISO 11359-1/-2
线膨胀系数(垂直)	**0.55 / ***	E-4/°C	ISO 11359-1/-2
燃烧性 （1.5mm名义厚度）	**V-0 / ***	class	IEC 60695-11-10
测试用试样的厚度	**1.5 / ***	mm	IEC 60695-11-10
UL认证	**UL / ***	-	-
厚度为h时的燃烧性	**V-0 / ***	class	IEC 60695-11-10
测试用试样的厚度	**0.35 / ***	mm	IEC 60695-11-10
UL认证	**UL / ***	-	-
相对热指数-电性能	**140**	°C	UL746B
相对热指数-电性能 （厚度1）	**1.5**	mm	UL746B
热指数5000 hrs	**163**	°C	IEC 60216/ISO 527-1/-2
电性能	**干/ 湿**		
体积电阻率	**1E13 / 1E8**	Ohm*m	IEC 60093

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a DSM Product

Astonishing Stanyl®

Stanyl® TE250F6

介电强度	**30 / 20**	kV/mm	IEC 60243-1
相对漏电起痕指数	**225 / -**	-	IEC 60112
其它性能	**干/ 湿**		
吸湿性	**1.6 / ***	%	Sim. to ISO 62
密度	**1680 / -**	kg/m³	ISO 1183

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a DSM Product

Astonishing Stanyl®

 

QMFZ2 Component - Plastics Friday, October 24, 2003 E47960

DSM ENGINEERING PLASTICS B V
POSTBUS 43 6130 AA SITTARD THE NETHERLANDS

Material Designation: **TE250F6**

Product Description: Polyamide 4/6 (PA4/6), glass reinforced, flame retardant, designated "Stanyl" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	0.35	V-0	-	-	-	-	-	-	-
	0.75	V-0	0	0	140	110	120	-	-
	1.5	V-0	0	0	140	125	125	-	-
	3.0	V-0	0	0	140	130	130	-	-

CTI: 0 **HVTR:** 1 **D495:** 6 **IEC Ball Pressure** (°C): -

Dielectric Strength (kV/mm): 23
ISO Tensile Strength (MPa): -
ISO Tensile Impact (kJ/m^2): -

Volume Resistivity (10^{x}ohm-cm): -
ISO Flexural Strength (MPa): -
ISO Izod Impact (kJ/m^2): -

Dimensional Stability(%): 0.0
ISO Heat Deflection (° C): -
ISO Charpy Impact (kJ/m^2): -

Report Date: 1/1/2003 Underwriters Laboratories Inc®

UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.

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TESTING
CNAS L0599

Test Report

No.: SHAEC24029593705 **Date:** Dec 31, 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.: SHP24-042004

Sample Receiving Date: Dec 25, 2024

Testing Period: Dec 25, 2024 ~ Dec 31, 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
DB8F54D2

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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	A3	SHA24-0295937-0001.C003	Golden 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	17
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

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Test Item(s)	Limit	Unit(s)	MDL	A3
Octabrominated diphenyl ether (OctaBDE)	-	mg/kg	25	ND
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.

(4) Test item PBB,PBDE,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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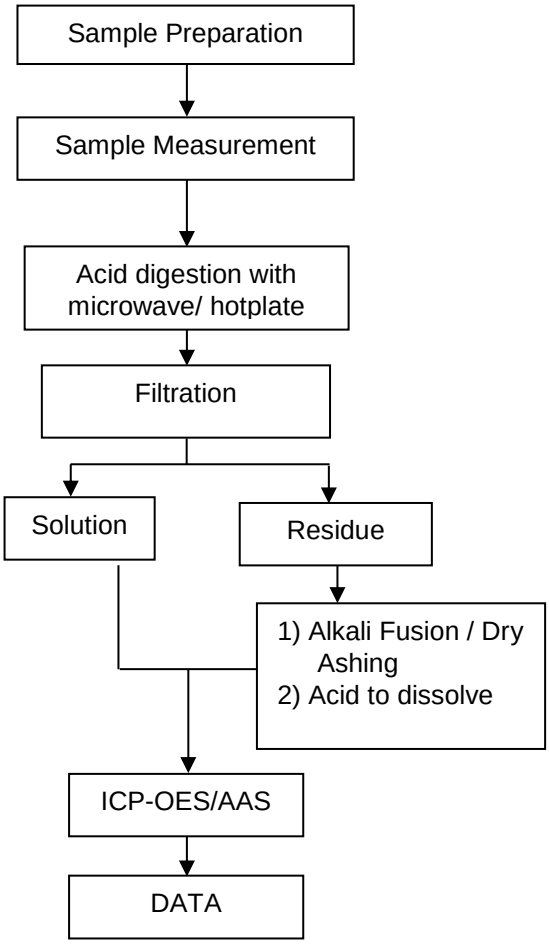
Elements Testing Flow Chart

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



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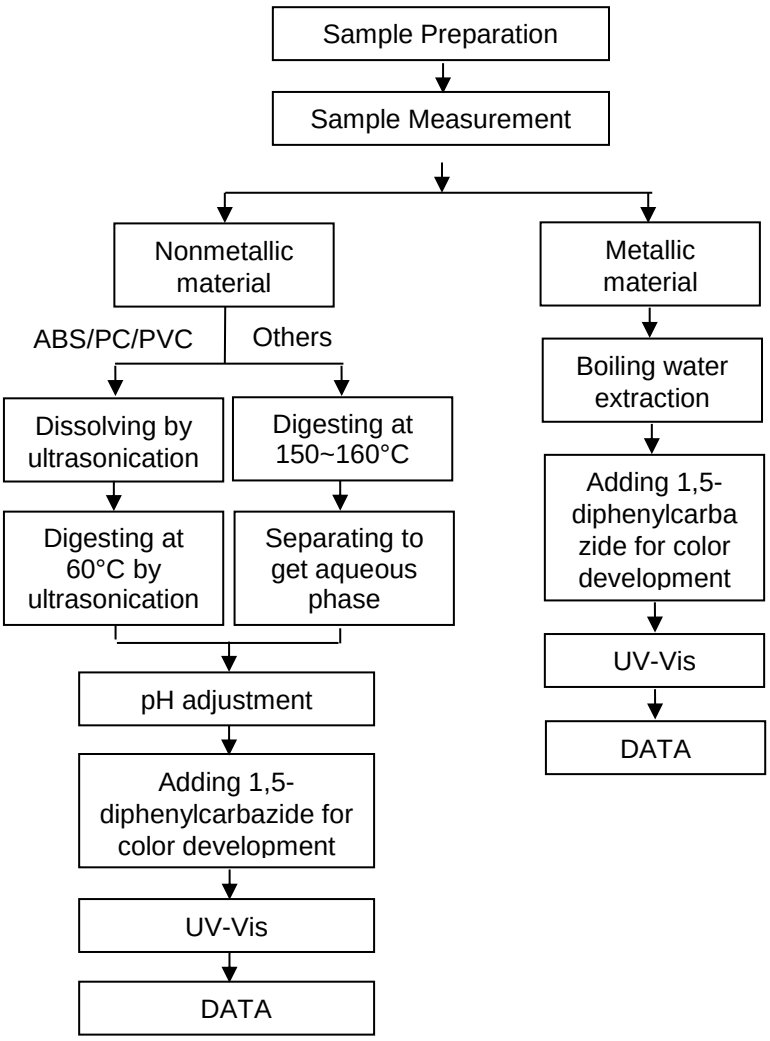
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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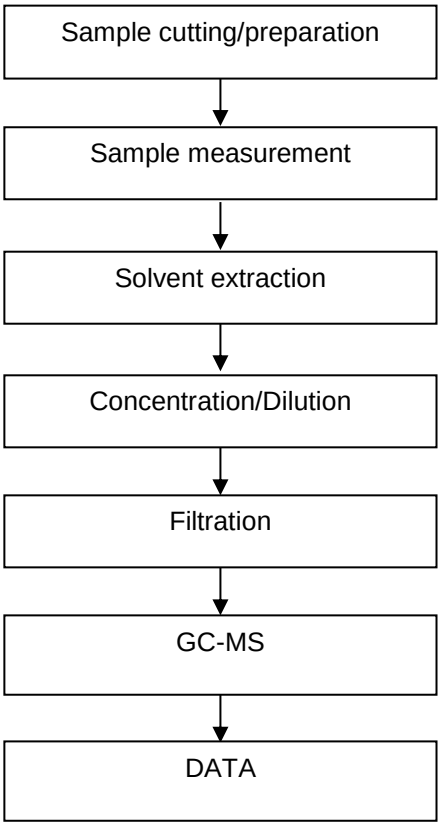
PBB/PBDE/Phthalates Testing Flow Chart



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Sample Photo:



SHA24-0295937-0001.C003

SGS authenticate the photo on original report only

*** End of Report ***

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楚江 TRUCHUM	黄铜 MSDS	芜湖楚江合金铜材有限公司	
		文件编号	HJ-JC-001A
		代　替	
		执行日期	2023 年 12 月 1 日

材料安全数据表(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：芜湖楚江合金铜材有限公司

第2部分　主要组成成份

牌　号	化学成分，% CAS NO					
	Cu	Pb	Fe	Ni	P	Zn
	7440-50-8	7439-92-1	7439-89-6	/	/	7440-66-6
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

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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：

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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。

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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。

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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：0553-531-3076

编写日期：2023 年 12 月

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Material report tables

CUSTOMER：深圳市凯悦通电子有限公司

DATE：2020 年 12 月 24 日 DATE：**December 24, 2020**

LOT NO：黄铜线 Brass wires（H65）SIZE ：Φ0.8

Chemical analrysis					
元素名称 Names	铜 Copper（Cu）%	铅 Lead（Pb）%	锌 Zinc（Zn）%	铁 Iron（Fe）%	其它 Others
标 准 Standard	63-68.5	≤0.009	余量 Margin	≤0.07	/
实际含量 actual potency	63.75	0.0035	余量 Margin	0.027	/

机 械 测 试 Mechanicaal tests			
执 行 标 准（Carried Standard） GB/T21652-2017			
检测项目 Test item	单位 Unit	规定值 Specified value	测试值 Test value
外 径 External diameter	mm	$\Phi 0.8^{\pm 0.01}$	Φ0.8
延 伸 率 Elongation	%	≥25%	27%
外 观 Appearance	/	表面质量 Surface qualiy	合格 Conformity
抗拉强度 Tensile strength	N/mm^2	400-450	432
硬 度 Hardness(HV)	Times	115-135	125.4
导 电 率 Electrical conductirity	(20℃) %IACS	≥25%	25.3%
具体发货批号	12202787		

Test team leader：方荣 测试员 Tester：李俊

CTI 华测检测

检测报告
Test Report

报告编号 A2250136852101002E
Report No. A2250136852101002E

报告抬头公司名称 深圳市宏利电镀制品有限公司
Company Name shown on Report SHENZHEN HONGLI ELECTROPLATING PRODUCTS CO., LTD.
地 址 深圳市宝安区松岗街道碧头第二工业区
Address BITOU SECOND INDUSTRIAL ZONE, SONGGANG STREET, BAOAN DISTRICT, SHENZHEN

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	镀亮锡层
Sample Name	镀亮锡层
样品接收日期	2025.03.10
Sample Received Date	Mar. 10, 2025
样品检测日期	2025.03.10-2025.03.13
Testing Period	Mar. 10, 2025 to Mar. 13, 2025

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 2025.03.13

No. R177732011

华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

****

结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863 RoHS Directive 2011/65/EU with amendment (EU) 2015/863	符合 PASS

****

符合表示检测结果满足欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863要求的限值。

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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 62321-12:2023	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-12:2023	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-12:2023	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	限值 Limit
	002		
铅 Lead (Pb)	38 mg/kg	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D. ▼	0.10 μg/cm² (LOQ)	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	002		
多溴联苯 Polybrominated Biphenyls (PBBs)			
一溴联苯 Monobromobiphenyl	N.D.	25 mg/kg	1000 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	25 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	25 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.	25 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.	25 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.	25 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.	25 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.	25 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.	25 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.	25 mg/kg	

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	002		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.	25 mg/kg	1000 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	25 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.	25 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	25 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.	25 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.	25 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.	25 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.	25 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.	25 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.	25 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	限值 Limit
	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	1000 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	1000 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	1000 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 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	银白色镀层 Silvery white 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

-1000 mg/kg = 0.1%

-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

-1000 mg/kg = 0.1%

-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。**

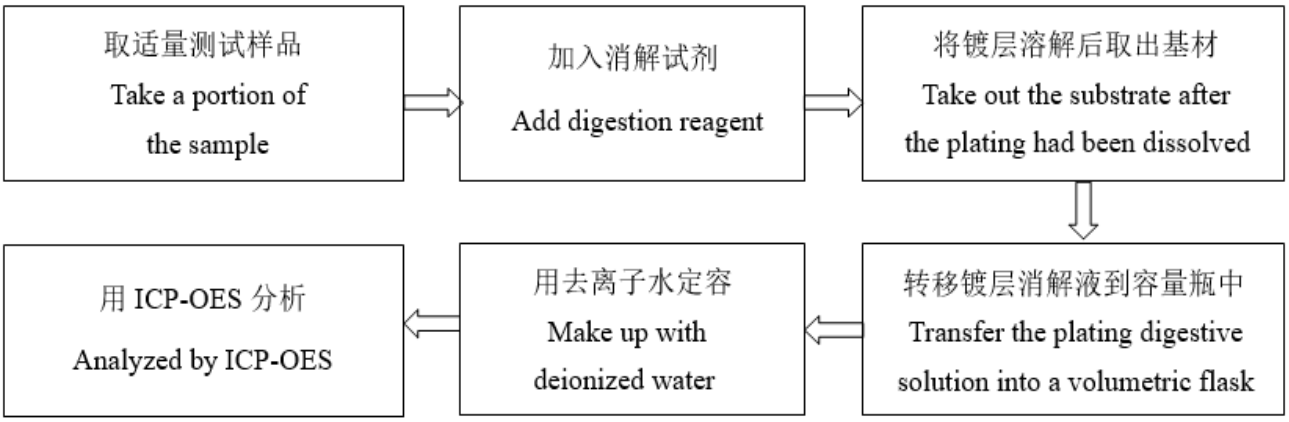
Note: **The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.**

检测报告
Test Report

检测流程 Test Process

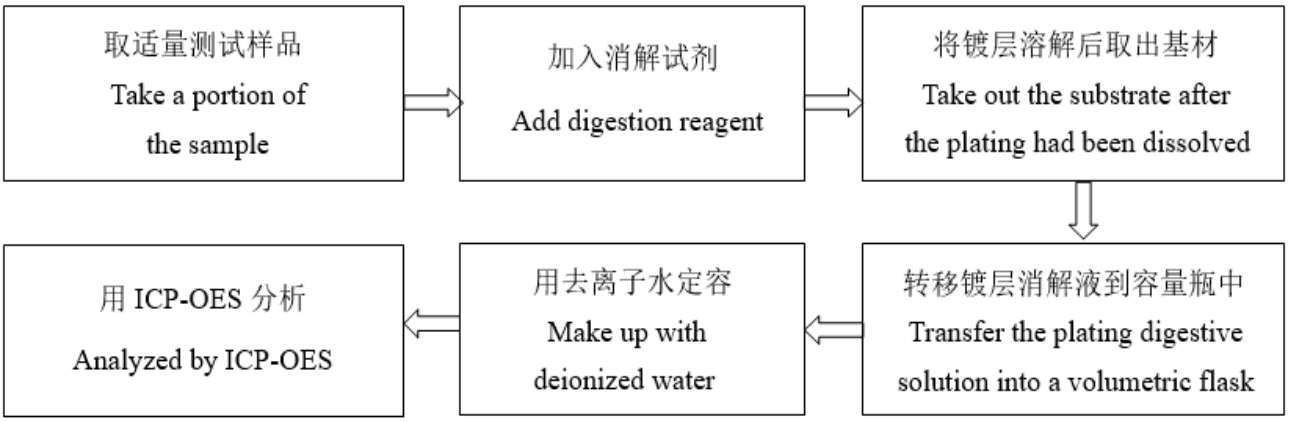
1. 铅(Pb)， 镉(Cd)

Lead (Pb), Cadmium (Cd)



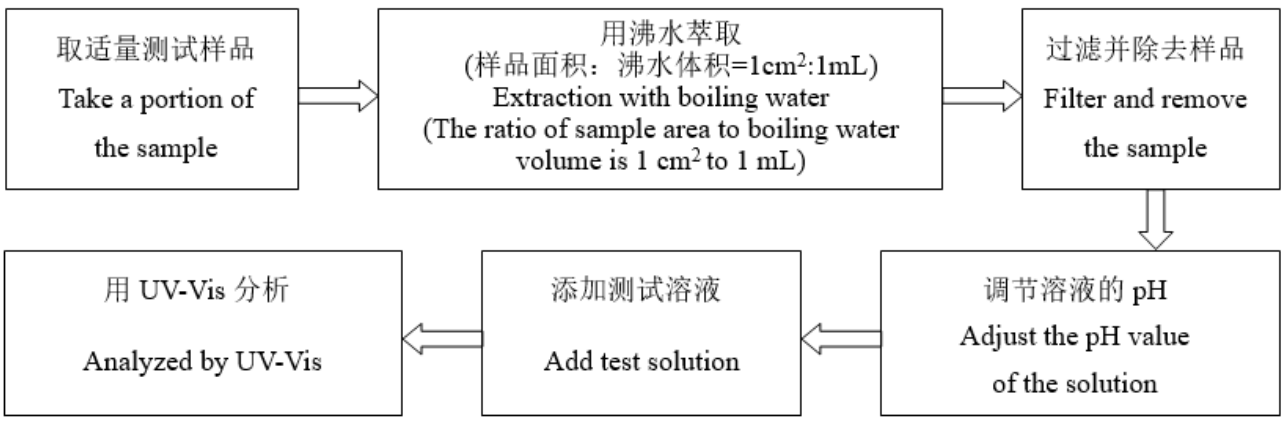
2. 汞(Hg)

Mercury (Hg)



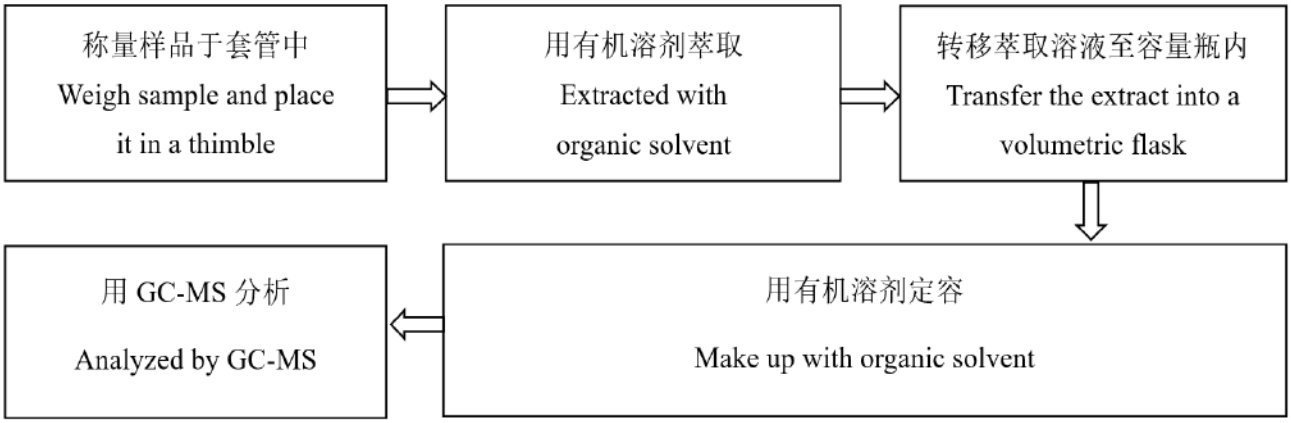
3. 六价铬(Cr(VI))

Hexavalent Chromium (Cr(VI))



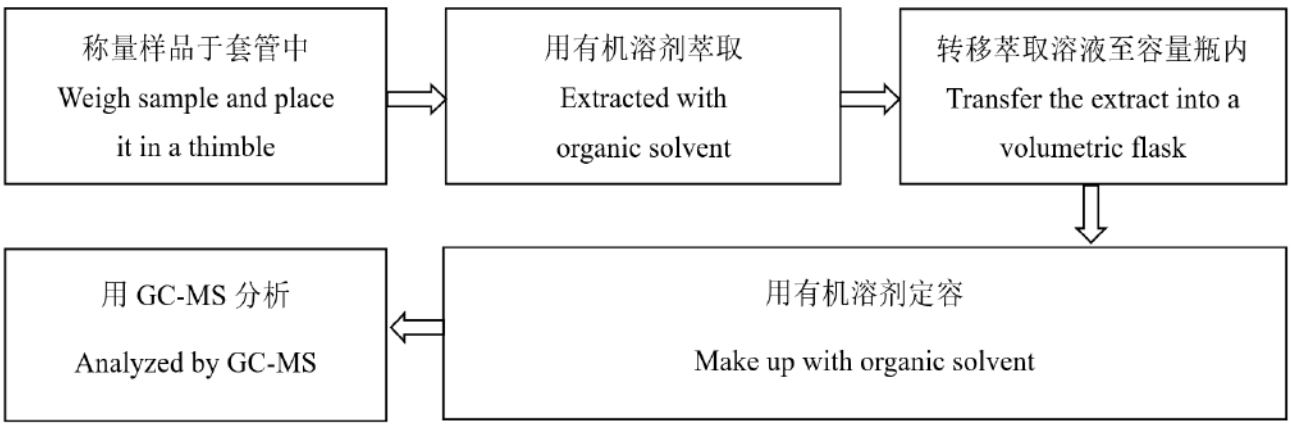
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

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

报告编号 A2250136852101002E
Report No. A2250136852101002E

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 ***

深圳市宏利电镀制品有限公司

ShenzhenHongli Electroplating Products co. LTD

物质安全数据表

Material safety data sheet

一、 物质与厂商资料

A substance, and vendor information

物品名称：镀锡层 Item name: tin plating
物品编号： Item number:
制造商名称: 深圳市宏利电镀制品有限公司 Name ofmanufacturer: ShenzhenHongli Electroplating Products co . LTD 地址, 深圳市宝安区松岗镇碧头第二工业区 Address, ： Bitou Second lndustrial Zone songgang Town Baoan District Shenzhen City 电话:0755-27552641 TEL: 0755-27552641 传真： FAX:

受控文件

二、 成分辨识资料

Two, component identification data

中英文名称：镀锡电镀品
English Name: tin plating
化学文摘社登记号码：（CAS）7440-31-5 Chemical Abstracts Service Registration Number: (CAS)7440-31-5
主要成分：如附表 Main components:

材质成分 Material composition

成分名称 Component name	
Sn 99.98%	CAS NO:：7440-31-5
Pb 0.0046%	CAS NO:：7492-92-1
Cu 0 0093%	CAS NO:：7440-50-8
Bi 0.00047%	CAS NO:：7440-69-9
Fe 0.0027%	CAS NO:：7439-89-6
Al 0.00293%	CAS NO:：7429-90-5

三、 危害辨识数据

In three, hazard identification data

健康危害效应：低毒 Health hazards: low toxicity effect
环境影响：无 Environmental impact: no
物理性及化学性危害：－ Physical and chemical hazard: -
特殊危害：－ Special hazards: -

四、 急救措施：

Four, emergency measures:

不同暴露途径之急救方法： The emergency method ofdifferent exposure routes: ·吸入：将患者移到空气流通之场所，维持安静，保温并立即送医；停止呼吸时应立即实施人工呼吸，呼吸困难时则进行氧化急救。 Inhalation: patients will be moved to the air circulation place, keep quiet, insulation and immediately Hospital; stop breathing should immediately carry out artificial respiration, respiratory difficulties, oxidation of first aid. ·皮肤接触：脱下被污染的衣服，立即用大量水清洗接触部位，如有发炎应就医。 Skin contact: remove contaminated clothing, wash immediately with plenty ofwater contact sites, such as inflammation should seek medical treatment. ·眼睛接触：立及用大量水清洗眼睛达 15 分钟，并立即就医。 Eye contact: and with plenty ofwater and clean the eyes for 15 minutes, and seek medical advice immediately. ·食入：饮用大量水或食盐水，并催吐就医。 Ingestion: drinking lots ofwater or salt water, and vomiting.
最重要症状及危害效应：－ The most important symptoms and harm effect: -
对急救人员之防护：－ First aid personal protection: -
对医师之提示：－ Prompt to doctor: -

五、 灭火措施：

In five, fire fighting measures:

适用灭火剂：干粉灭火剂 Suitable extinguishing media: dry powder fire extinguishing agent
灭火时可能遭遇之特殊危害：擦刮伤 When fire may encounter special hazards: scrape injury
特殊灭火程序：－ Special extinguishing procedure: -
消防人员之特殊防护设备：穿戴自携式呼吸器及防护衣 Special protection equipment : wearable portable breathing apparatus and protective clothing

六、泄漏处理方法：

In six, the leakage treatment method:

个人应注意事项：穿戴安全眼镜，防护手套 The individual should pay attention to matters: wear safety glasses, gloves
环境注意事项：不能将其排入河川 Environmental considerations: it cannot be discharged into the river
消防方法：使用木屑、砂土吸附，然后以水冲洗 Fire fighting method: using sawdust, sand adsorption, then rinse

七、安全处置与储存方法：

Seven, safe handling and storage method:

处置：使用无危害性环保包装材料对产品进行包装，并且平稳横置于卡板上方进行打包。 Disposal: use no harmfulness of environmental protection packaging materials for packaging products, and steadily transversely arranged on the board above the pack.
储存：温度25±3℃ 湿度50%±20% Storage: temperature 25± 3 ℃and humidity of 50%± 20%

受控文件

八．暴露预防措施：

Eight exposure prevention measures:

工程控制：－ Engineering controls: -
控制参数： Control parameter: ·八小时日时量平均容许浓度/短时期时量平均容许温度/最高容许温度 Eight hour day average allowable concentration / a short period of time weighted average allowable temperature / maximum permissible temperature ·生物指标：无 The biological indicators: None
个人防护设备：安全眼镜、防护手套 Personal protective equipment: safety glasses, protective gloves ·呼吸防护：设制排气装置 Respiratory protection: set, exhaust device ·手部防护：防护手套 Hand protection: protective gloves ·眼睛防护：安全眼镜 Eye protection: safety glasses ·皮肤及身体防护：衣服 The skin and body protection: clothes
卫生措施：1.工作场所严禁饮食及抽烟 Health measures: 1 diet and smoking is prohibited in the workplace 2.维持作业场所清洁。2 maintain the workplace clean.

九、 物理及化学性质：

In nine, the physical and chemical properties:

物质状态：固态 Material: solid state	形状：－ Shape::-
颜 色：雾白 Color: white mist	气味：－ Smell: -

PH 值：碱性 PH: alkaline	沸点/沸点范围： Boiling point / boiling:
分解温度：－ Decomposition temperature: -	闪火点：－ Flash point: - 测试方法：－ Test method: -
自然温度：－Natural temperature: -	爆炸界限：－Explosion limits: -
蒸气压：－ Vapor pressure: -	蒸气密度：－Vapor density: -
密度：7.3 g/cm³ Density: 7.3 g/cm3	溶解度：－ Solubility: -

受控文件

十、 定性及反应性：

Ten, qualitative and reactivity:

安定性：不可置于-13℃以下之环境否则会失去锡的性质。 Stability: can not be placed below -13 ℃environment otherwise you will lose the properties of tin.
特殊状况下可能之危害反应：－ Special conditions of hazardous reaction: -
应避免之状况：－ The situation should be avoided: -
应避免之物质：一切液体 Substances to avoid: all of the liquid
危害分解物：－ Hazardous decomposition products: -

十一、毒性资料：

Eleven, toxicity data:

急毒性：低毒	Acute toxicity: poisonous
局部效应：－	Local effect: -
致敏感性：－	Induced sensitivity: -
慢毒性或长期毒性：－	Chronic or long term toxicity: -
特殊效应：－	Special effects: -

十二、生态资料：

Twelve, ecological information:

可能之环境影响/环境流怖： Possible environmental impact / environmental flow distribution: 水中生物分解度低 Biological decomposition ofwater

十三、压处置方法：

Thirteen, pressure disposal method:

废弃处置方法：依据当地环保法规处理 Waste disposal method: according to the local environmental protection regulations

十四、运送资料：

Fourteen, transport information:

国际运送规定：－
联合国编号：－ International transport regulation: -
国内运送规定：－Domestic transport regulation: -

特殊运送方法及注意事项：避免剧烈震动、冲撞、挤压。 Special delivery methods and matters needing attention: avoid rattling, crash, crush.

十五、法规资料：

Fifteen, regulatory information:

十六、其它数据：

Sixteen, other data:

受控文件

制造单位 Manufacturing unit	名称：深圳市宏利电镀制品有限公司 Name: ShenzhenHongli Electroplating Products co . LTD	
	地址：深圳市宝安区松岗镇碧头第二工业区 电话：0755-27552641 Bitou Second lndustrial Zone songgang Town Baoan District Shenzhen City TEL:0755-27552641	
制 表 人 System table.	职称： 品保部经理 Title: Quality Assurance Manager	姓名：（签章）孙华君 Name:Sun hua jun
制表日期 Date of	2021-6-22 有效期限：3 年 2021-6-22 Duration: 3 years	

备注:上述数据中符号″一″代表目前查无相关数据,而符号″/″代表此字段对该物质不适用.

Note: the above data symbol " - " represents the current check no related data, while the symbol " / " representative of this field to the substance does not apply.

CTI 华测检测

检测报告
Test Report

报告编号 A2250136852101004E
Report No. A2250136852101004E

报告抬头公司名称 深圳市宏利电镀制品有限公司
Company Name shown on Report SHENZHEN HONGLI ELECTROPLATING PRODUCTS CO., LTD.
地 址 深圳市宝安区松岗街道碧头第二工业区
Address BITOU SECOND INDUSTRIAL ZONE, SONGGANG STREET, BAOAN DISTRICT, SHENZHEN

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	镀镍层
Sample Name	镀镍层
样品接收日期	2025.03.10
Sample Received Date	Mar. 10, 2025
样品检测日期	2025.03.10-2025.03.13
Testing Period	Mar. 10, 2025 to Mar. 13, 2025

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 2025.03.13

No. R177732011

华测检测认证集团股份有限公司
Centre Testing International Group Co.,Ltd.
广东省深圳市宝安区新安街道兴东社区华测检测大楼
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

****

结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863 RoHS Directive 2011/65/EU with amendment (EU) 2015/863	符合 PASS

****

符合表示检测结果满足欧盟RoHS指令2011/65/EU及其修订指令(EU) 2015/863要求的限值。

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.

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 62321-12:2023	GC-MS
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-12:2023	GC-MS
邻苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-12:2023	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	限值 Limit
	004		
铅 Lead (Pb)	N.D.	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D. ▼	0.10 μg/cm² (LOQ)	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	004		
多溴联苯 Polybrominated Biphenyls (PBBs)			
一溴联苯 Monobromobiphenyl	N.D.	25 mg/kg	1000 mg/kg
二溴联苯 Dibromobiphenyl	N.D.	25 mg/kg	
三溴联苯 Tribromobiphenyl	N.D.	25 mg/kg	
四溴联苯 Tetrabromobiphenyl	N.D.	25 mg/kg	
五溴联苯 Pentabromobiphenyl	N.D.	25 mg/kg	
六溴联苯 Hexabromobiphenyl	N.D.	25 mg/kg	
七溴联苯 Heptabromobiphenyl	N.D.	25 mg/kg	
八溴联苯 Octabromobiphenyl	N.D.	25 mg/kg	
九溴联苯 Nonabromobiphenyl	N.D.	25 mg/kg	
十溴联苯 Decabromobiphenyl	N.D.	25 mg/kg	

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	004		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.	25 mg/kg	1000 mg/kg
二溴二苯醚 Dibromodiphenyl ether	N.D.	25 mg/kg	
三溴二苯醚 Tribromodiphenyl ether	N.D.	25 mg/kg	
四溴二苯醚 Tetrabromodiphenyl ether	N.D.	25 mg/kg	
五溴二苯醚 Pentabromodiphenyl ether	N.D.	25 mg/kg	
六溴二苯醚 Hexabromodiphenyl ether	N.D.	25 mg/kg	
七溴二苯醚 Heptabromodiphenyl ether	N.D.	25 mg/kg	
八溴二苯醚 Octabromodiphenyl ether	N.D.	25 mg/kg	
九溴二苯醚 Nonabromodiphenyl ether	N.D.	25 mg/kg	
十溴二苯醚 Decabromodiphenyl ether	N.D.	25 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	限值 Limit
	004		
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	1000 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	1000 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	1000 mg/kg
邻苯二甲酸二异丁酯 Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 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	004	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

-1000 mg/kg = 0.1%

-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

-1000 mg/kg = 0.1%

-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。**

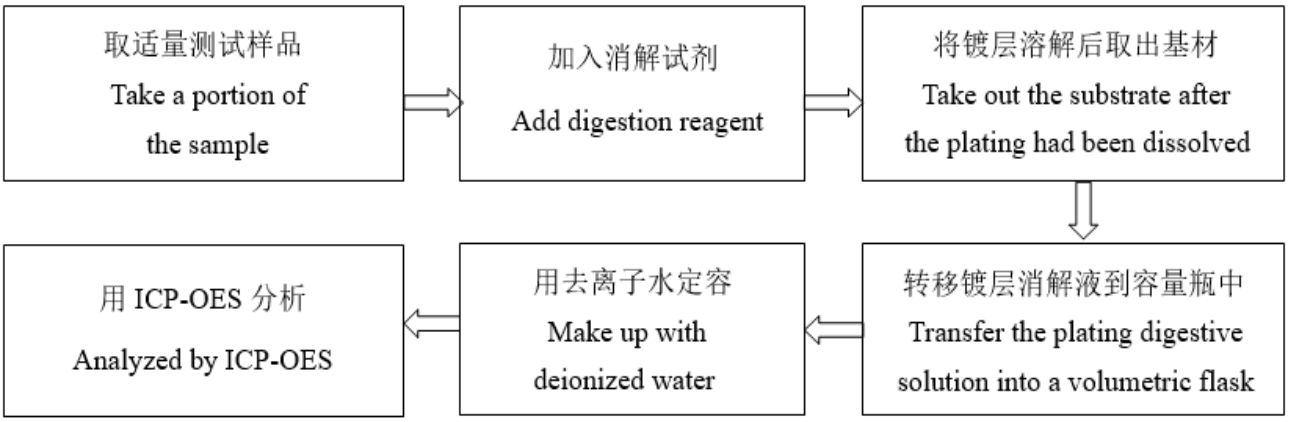
Note: **The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.**

检测报告
Test Report

检测流程 Test Process

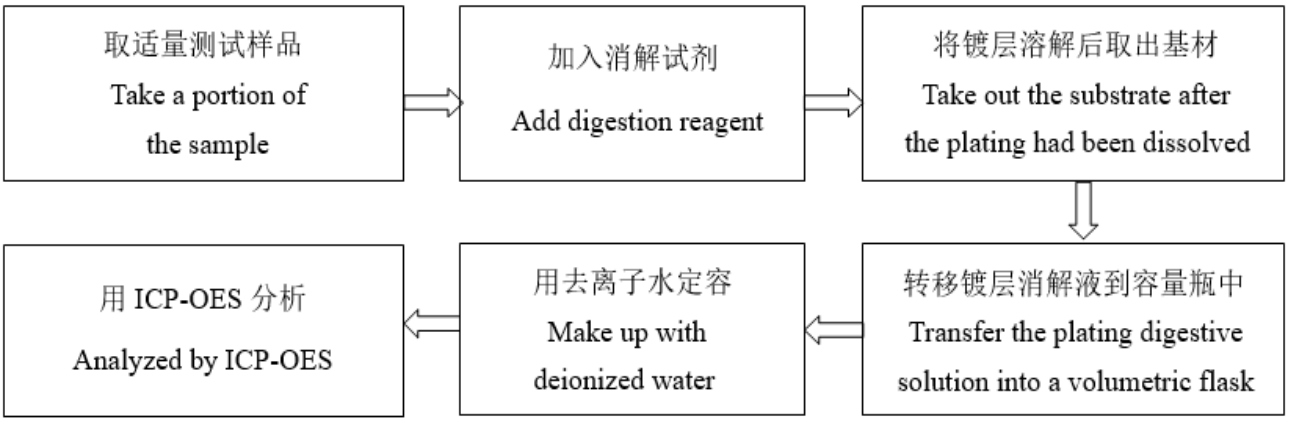
1. 铅(Pb)， 镉(Cd)

Lead (Pb), Cadmium (Cd)



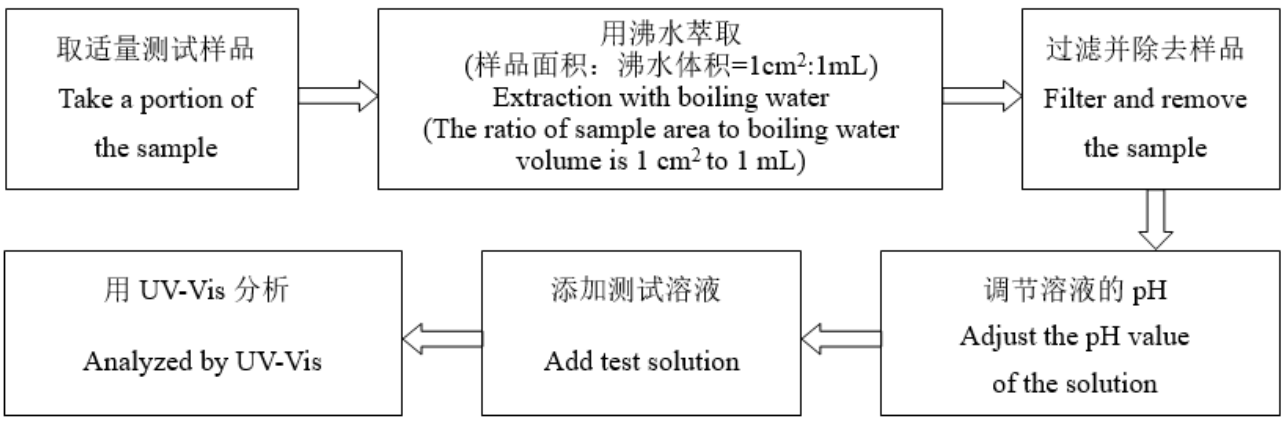
2. 汞(Hg)

Mercury (Hg)



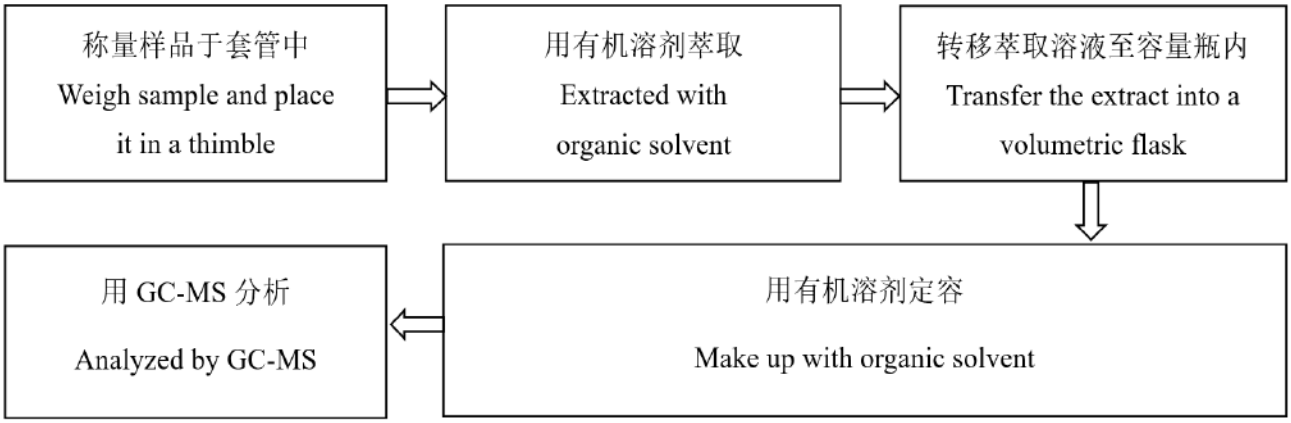
3. 六价铬(Cr(VI))

Hexavalent Chromium (Cr(VI))



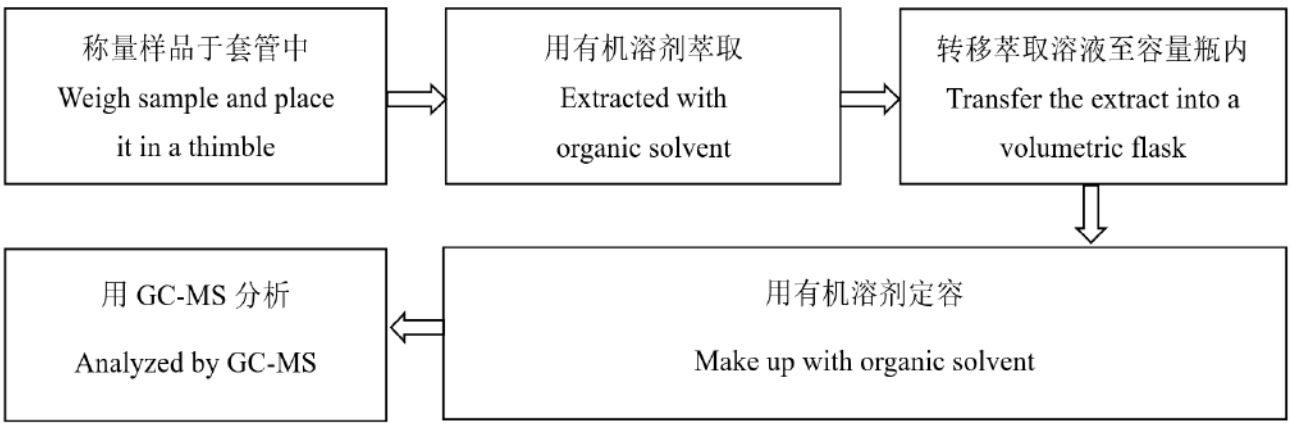
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

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 ***

深圳市宏利电镀制品有限公司

ShenzhenHongli Electroplating Products co. LTD

物质安全数据表

Material safety data sheet

一、 物质与厂商资料

A substance, and vendor information

物品名称：镀镍层 Item name: Nickel plating
物品编号： Item number:
制造商名称: 深圳市宏利电镀制品有限公司 Name ofmanufacturer: ShenzhenHongli Electroplating Products co . LTD 地址, 深圳市宝安区松岗镇碧头第二工业区 Address, ： Bitou Second lndustrial Zone songgang Town Baoan District Shenzhen City 电话:0755-27552641 TEL: 0755-27552641 传真： FAX:

受控文件

二、 成分辨识资料

Two, component identification data

中英文名称：镀镍电镀品
English Name: Nickel plating
化学文摘社登记号码：（CAS）7440-02-0 Chemical Abstracts Service Registration Number: (CAS)7440-02-0
主要成分：见附表 Main components:

材质成分 Material composition

成分名称 Component name	
Ni 99.9826%	CAS NO:：7440-02-0
Pb 0.00015%	CAS NO:：7492-92-1
Cu 0 0025%	CAS NO:：7440-50-8
Bi 0.0034%	CAS NO:：7440-69-9
Zn 0.0042%	CAS NO:：7440-66-6
Fe 0.0029%	CAS NO:：7439-89-6
AI：0.00425%	CAS NO:：7429-90-5

三、 危害辨识数据

In three, hazard identification data

健康危害效应：低毒 Health hazards: low toxicity effect
环境影响：无 Environmental impact: no
物理性及化学性危害：－ Physical and chemical hazard: -
特殊危害：－ Special hazards: -

四、 急救措施：

Four, emergency measures:

不同暴露途径之急救方法： The emergency method ofdifferent exposure routes: ·吸入：将患者移到空气流通之场所，维持安静，保温并立即送医；停止呼吸时应立即实施人工呼吸，呼吸困难时则进行氧化急救。 Inhalation: patients will be moved to the air circulation place, keep quiet, insulation and immediately Hospital; stop breathing should immediately carry out artificial respiration, respiratory difficulties, oxidation of first aid. ·皮肤接触：脱下被污染的衣服，立即用大量水清洗接触部位，如有发炎应就医。 Skin contact: remove contaminated clothing, wash immediately with plenty ofwater contact sites, such as inflammation should seek medical treatment. ·眼睛接触：立及用大量水清洗眼睛达 15 分钟，并立即就医。 Eye contact: and with plenty ofwater and clean the eyes for 15 minutes, and seek medical advice immediately. ·食入：饮用大量水或食盐水，并催吐就医。 Ingestion: drinking lots ofwater or salt water, and vomiting.
最重要症状及危害效应：－ The most important symptoms and harm effect: -
对急救人员之防护：－ First aid personal protection: -
对医师之提示：－ Prompt to doctor: -

受控文件

五、 灭火措施：

In five, fire fighting measures:

适用灭火剂：干粉灭火剂 Suitable extinguishing media: dry powder fire extinguishing agent
灭火时可能遭遇之特殊危害：擦刮伤 When fire may encounter special hazards: scrape injury
特殊灭火程序：－ Special extinguishing procedure: -
消防人员之特殊防护设备：穿戴自携式呼吸器及防护衣 Special protection equipment : wearable portable breathing apparatus and protective clothing

六、泄漏处理方法：

In six, the leakage treatment method:

个人应注意事项：穿戴安全眼镜，防护手套 The individual should pay attention to matters: wear safety glasses, gloves
环境注意事项：不能将其排入河川 Environmental considerations: it cannot be discharged into the river
消防方法：使用木屑、砂土吸附，然后以水冲洗 Fire fighting method: using sawdust, sand adsorption, then rinse

七、安全处置与储存方法：

Seven, safe handling and storage method:

处置：使用无危害性环保包装材料对产品进行包装，并且平稳横置于卡板上方进行打包。 Disposal: use no harmfulness of environmental protection packaging materials for packaging products, and steadily transversely arranged on the board above the pack.
储存：温度25±3℃ 湿度50%±20% Storage: temperature 20± 3 ℃and humidity of 50%± 20%

受控文件

八．暴露预防措施：

Eight exposure prevention measures:

工程控制：－ Engineering controls: -
控制参数： Control parameter: ·八小时日时量平均容许浓度/短时期时量平均容许温度/最高容许温度 Eight hour day average allowable concentration / a short period of time weighted average allowable temperature / maximum permissible temperature ·生物指标：无 The biological indicators: None
个人防护设备：安全眼镜、防护手套 Personal protective equipment: safety glasses, protective gloves ·呼吸防护：设制排气装置 Respiratory protection: set, exhaust device ·手部防护：防护手套 Hand protection: protective gloves ·眼睛防护：安全眼镜 Eye protection: safety glasses ·皮肤及身体防护：衣服 The skin and body protection: clothes
卫生措施：1.工作场所严禁饮食及抽烟 Health measures: 1 diet and smoking is prohibited in the workplace 2.维持作业场所清洁。2 maintain the workplace clean.

九、 物理及化学性质：

In nine, the physical and chemical properties:

物质状态：固态 Material: solid state	形状：－ Shape::-
颜 色：灰白 Color: white mist	气味：－ Smell: -

PH 值：碱性 PH: alkaline	沸点/沸点范围： Boiling point / boiling:
分解温度：－ Decomposition temperature: -	闪火点：－ Flash point: - 测试方法：－ Test method: -
自然温度：－Natural temperature: -	爆炸界限：－Explosion limits: -
蒸气压：－ Vapor pressure: -	蒸气密度：－Vapor density: -
密度：7.3 g/cm^3 Density: 7.3 g/cm3	溶解度：－ Solubility: -

十、 定性及反应性：

Ten, qualitative and reactivity:

安定性：不可置于-13℃以下之环境否则会失去镍的性质。 Stability: can not be placed below -13 ℃environment otherwise you will lose the properties of tin.
特殊状况下可能之危害反应：－ Special conditions of hazardous reaction: -
应避免之状况：－ The situation should be avoided: -
应避免之物质：一切液体 Substances to avoid: all of the liquid
危害分解物：－ Hazardous decomposition products: -

受控文件

十一、毒性资料：

Eleven, toxicity data:

急毒性：低毒	Acute toxicity: poisonous
局部效应：－	Local effect: -
致敏感性：－	Induced sensitivity: -
慢毒性或长期毒性：－	Chronic or long term toxicity: -
特殊效应：－	Special effects: -

十二、生态资料：

Twelve, ecological information:

可能之环境影响/环境流怖： Possible environmental impact / environmental flow distribution: 水中生物分解度低 Biological decomposition ofwater

十三、压处置方法：

Thirteen, pressure disposal method:

废弃处置方法：依据当地环保法规处理 Waste disposal method: according to the local environmental protection regulations

十四、运送资料：

Fourteen, transport information:

国际运送规定：－
联合国编号：－ International transport regulation: -
国内运送规定：－Domestic transport regulation: -

特殊运送方法及注意事项：避免剧烈震动、冲撞、挤压。 Special delivery methods and matters needing attention: avoid rattling, crash, crush.

十五、法规资料：

Fifteen, regulatory information:

十六、其它数据：

Sixteen, other data:

受控文件

制造单位 Manufacturing unit	名称：深圳市宏利电镀制品有限公司 Name: ShenzhenHongli Electroplating Products co . LTD	
	地址：深圳市宝安区松岗镇碧头第二工业区 电话：0755-27552641 Bitou Second lndustrial Zone songgang Town Baoan District Shenzhen City TEL:0755-27552641	
制 表 人 System table.	职称： 品保部经理 Title: Quality Assurance Manager	姓名：（签章）孙华君 Name:Sun hua jun
制表日期 Date of	2021-6-22 有效期限：3 年 2021-6-22 Duration: 3 years	

备注:上述数据中符号″－″代表目前查无相关数据,而符号″/″代表此字段对该物质不适用.

Note: the above data symbol " - " represents the current check no related data, while the symbol " / " representative of this field to the substance does not apply.

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.