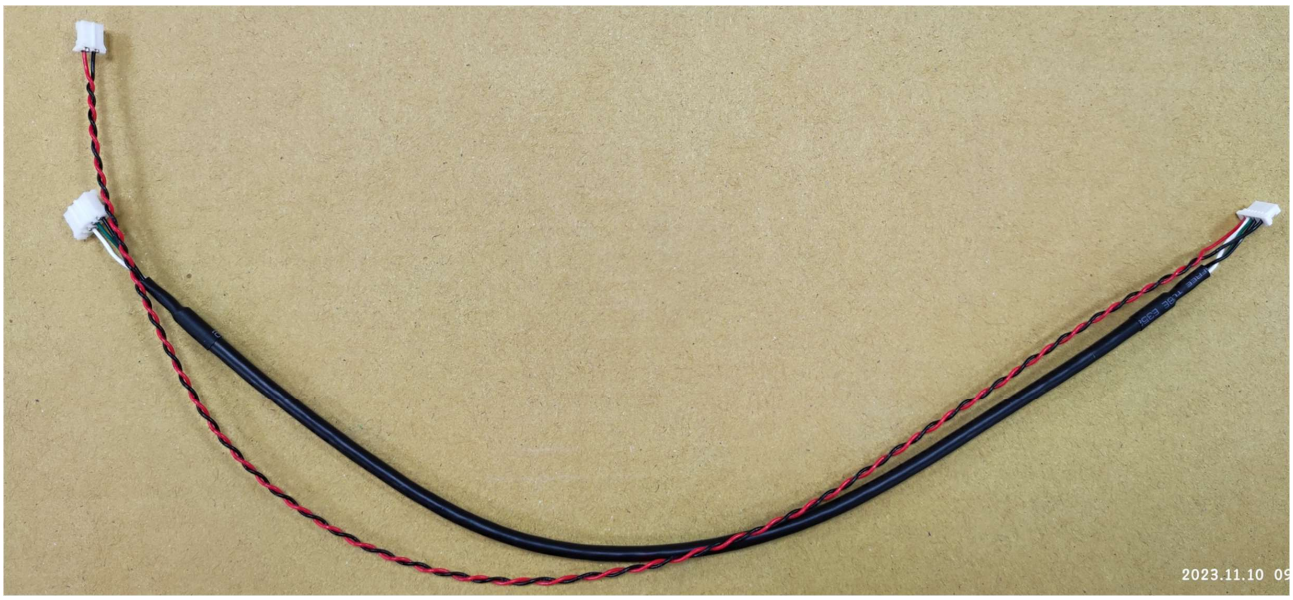
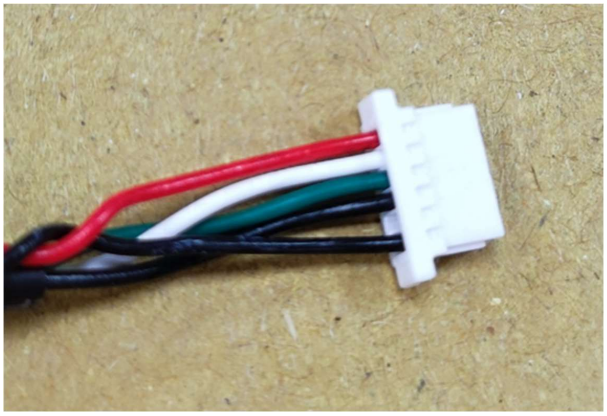
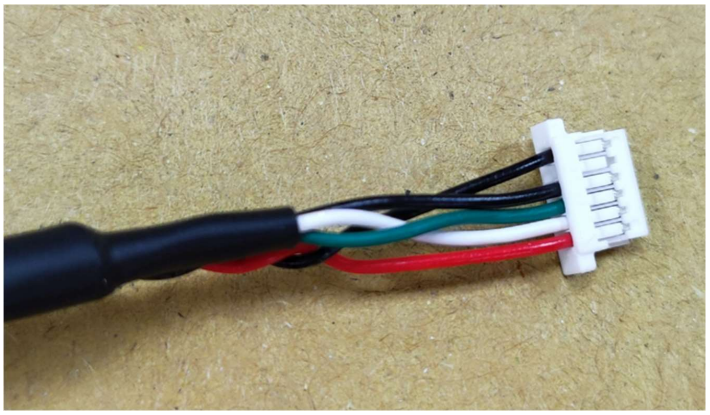
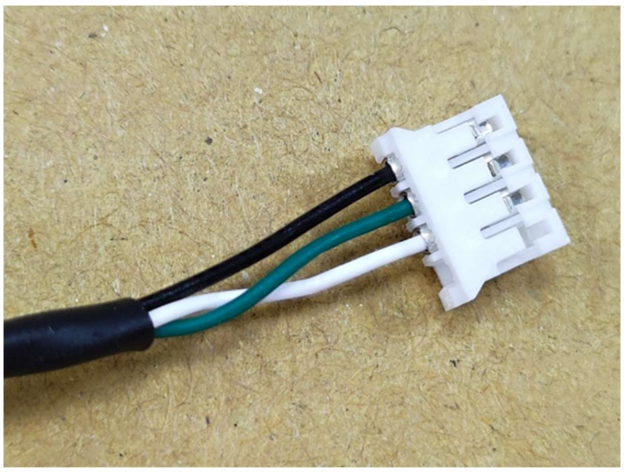
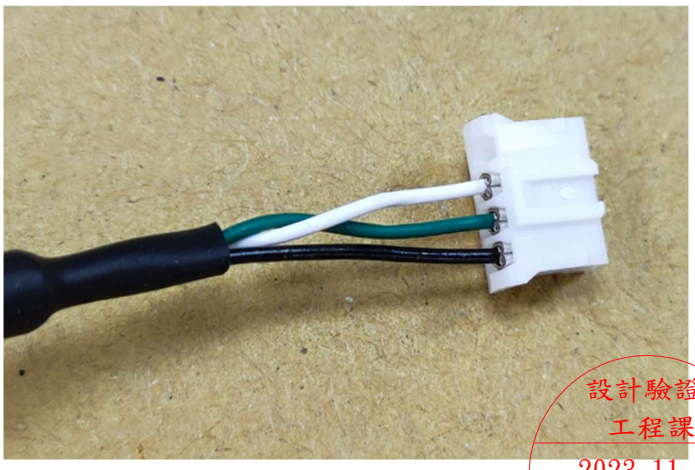


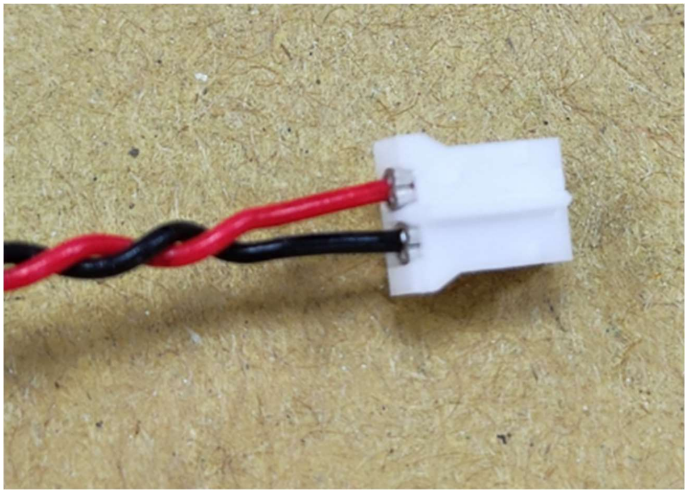


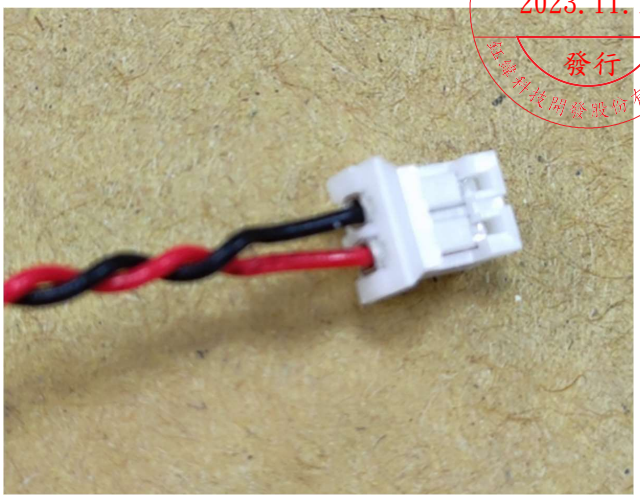






設計驗證
工程課
2023.11.10
發行





承 認 書

客戶名稱	鈺緯科技	品名規格	
客戶料號	3KH00295000 (K1168)	稳德料号	
使用機型		成品單重	
認可日期	2023年09月27日	材料種類	

客戶簽認		
設計驗證 工程課 2023.11.10 發行 鈺緯科技開發股份有限公司		
核　准	核對	經辦

廠商簽認		
核　准	核 對	經 辦
	陳熙偉	曾貴梅

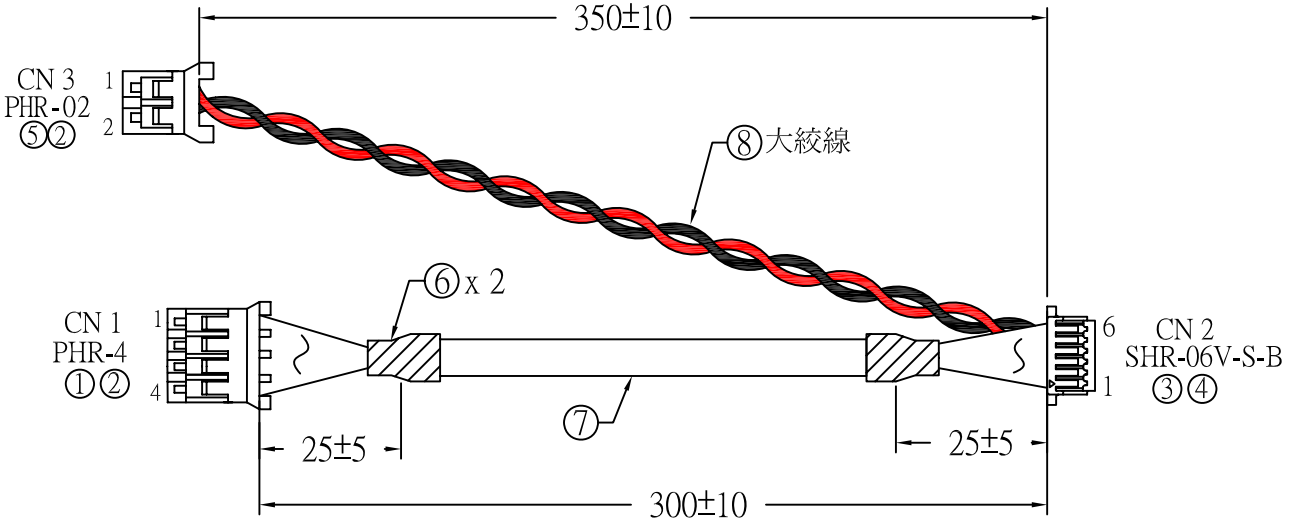
东莞穩德電子有限公司

地址：廣東省東莞市虎門鎮新聯高科技工業區

TEL:(0769)85509740　　FAX:(0769)85504618

http://www.wentek.com.tw　　E-mail:sales@dgwender.com.cn

DRAWING:
(成品圖)



對絞	CN 1	COLOR	CN 2
	2	白	2
	3	綠	3
	4	黑	4

CN 2	COLOR	CN 3
1	紅	1
6	黑	2

備註：
1、裁線長度： 2.5 x 310 x 1.3
2.5 x 376 x 1.3 絞線
剝皮尺寸: 30 x 310 x 30
2、測試條件:
>測試電壓:300 V.DC.
>導通阻抗:2Ω(MAX).
>絕緣阻抗:20MΩ(MIN).

設計驗證
工程課
2023.11.10
發行
鈺緯科技開發股份有限公司

NO. 項次	Description 規格說明	Unit 單位	Q"TY 單用量	Remark 備注
8	UL1571#28 OD:0.8 紅,黑 L=376	PCS	各1	眾達
7	UL2725#28x1P+#28x2C+ABE OD:3.5 L=310	PCS	1	慶龍
6	黑色熱縮管: § 4.0x15	PCS	2	領飛
5	HSG:PHR-02	PCS	1	JST
4	TER:SSH-003T-P0.2-H	PCS	5	JST
3	HSG:SHR-06V-S-B	PCS	1	JST
2	TER:SPH-002T-P0.5S	PCS	5	JST
1	HSG:PHR-4	PCS	1	JST

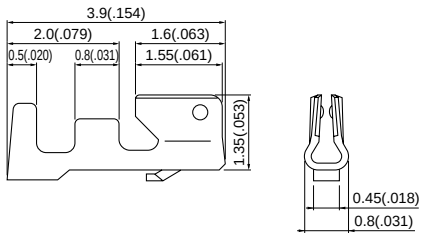
No. 項次	Date 日期	Design Change Record 變更記錄	Confirm 確認

Approval 檢查規范				ISSUE NO. 版次	REV. A	Customer 客戶名稱	鈺緯科技
Approve 核准	Check 复核	Confirm 確認	Draw By 繪圖		Unit : mm 單位	Drawing No. 品名	
				A	Scale : 比例	PART NO. 料號	(K1168) 3KH00295000
					2023.10.31	DRAW NO. 繪圖編號	

WEN DE ELECTRONICS CO.,LTD.

Q-008B

Contact



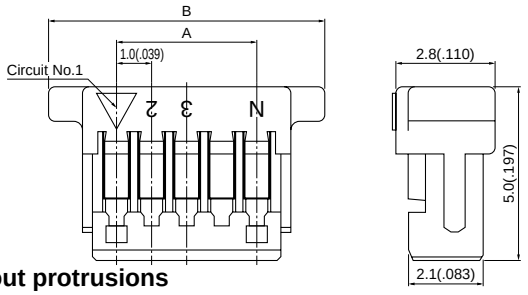
Model No.	Applicable wire			Q'ty / reel
	mm²	AWG#	Insulation O.D. mm(in.)	
SSH-003T-P0.2-H	0.032 to 0.08	32 to 28	0.4 to 0.8(.016 to .031)	23,000

Material and Finish
Phosphor bronze, tin-plated

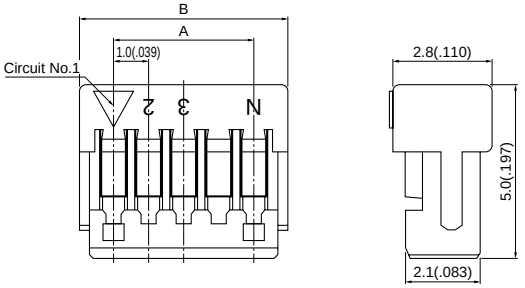
Note: Contact JST for gold-plated contacts.

Housing

With protrusions



Without protrusions



Circuits	Model No.		Dimensions mm(in.)			Q'ty / box
			A	B		
	With protrusions	Without protrusions		With protrusions	Without protrusions	
2	**SHR-02V-S-B**	**SHR-02V-S**	1.0(.039)	5.0(.197)	3.0(.118)	2,000
3	**SHR-03V-S-B**	**SHR-03V-S**	2.0(.079)	6.0(.236)	4.0(.157)	2,000
4	**SHR-04V-S-B**	**SHR-04V-S**	3.0(.118)	7.0(.276)	5.0(.197)	2,000
5	**SHR-05V-S-B**	**SHR-05V-S**	4.0(.157)	8.0(.315)	6.0(.236)	2,000
6	**SHR-06V-S-B**	**SHR-06V-S**	5.0(.197)	9.0(.354)	7.0(.276)	2,000
7	**SHR-07V-S-B**	**SHR-07V-S**	6.0(.236)	10.0(.394)	8.0(.315)	2,000
8	**SHR-08V-S-B**	**SHR-08V-S**	7.0(.276)	11.0(.433)	9.0(.354)	2,000
9	**SHR-09V-S-B**	**SHR-09V-S**	8.0(.315)	12.0(.472)	10.0(.394)	2,000
10	**SHR-10V-S-B**	**SHR-10V-S**	9.0(.354)	13.0(.512)	11.0(.433)	2,000
11	**SHR-11V-S-B**	**SHR-11V-S**	10.0(.394)	14.0(.551)	12.0(.472)	2,000
12	**SHR-12V-S-B**	**SHR-12V-S**	11.0(.433)	15.0(.591)	13.0(.512)	2,000
13	**SHR-13V-S-B**	**SHR-13V-S**	12.0(.472)	16.0(.630)	14.0(.551)	2,000
14	**SHR-14V-S-B**	**SHR-14V-S**	13.0(.512)	17.0(.669)	15.0(.591)	2,000
15	**SHR-15V-S-B**	**SHR-15V-S**	14.0(.551)	18.0(.709)	16.0(.630)	2,000
20	**SHR-20V-S-B**	–	19.0(.748)	23.0(.906)	21.0(.827)	2,000

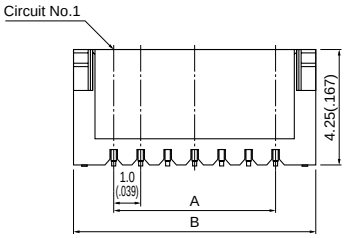
Meterial
PBT, UL94V-0, natural (white)

Note: SHR-20V-S-B is not CSA approved.

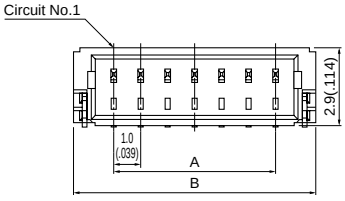
Shrouded header

The shrouded headers are interchangeable with those of the SR insulation displacement connectors.

Top entry type



Side entry type

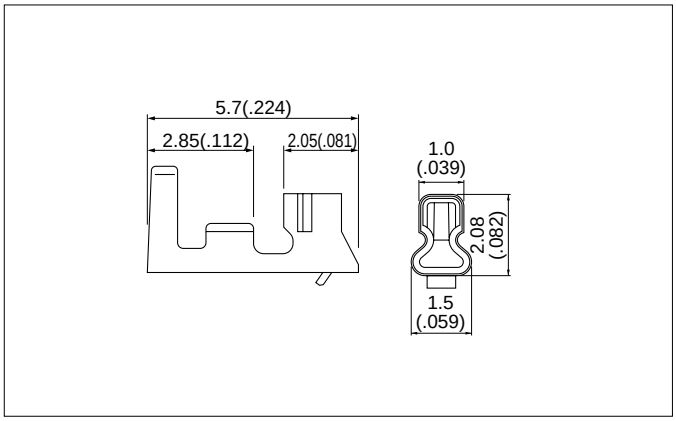


Circuits	Model No.		Dimensions mm(in.)		Q'ty / reel	
	Top entry type	Side entry type	A	B	Top entry type	Side entry type
2	**BM02B-SRSS-TB**	**SM02B-SRSS-TB**	1.0(.039)	4.0(.157)	1,500	3,000
3	**BM03B-SRSS-TB**	**SM03B-SRSS-TB**	2.0(.079)	5.0(.197)	1,500	3,000
4	**BM04B-SRSS-TB**	**SM04B-SRSS-TB**	3.0(.118)	6.0(.236)	1,500	3,000
5	**BM05B-SRSS-TB**	**SM05B-SRSS-TB**	4.0(.157)	7.0(.276)	1,500	3,000
6	**BM06B-SRSS-TB**	**SM06B-SRSS-TB**	5.0(.197)	8.0(.315)	1,500	3,000
7	**BM07B-SRSS-TB**	**SM07B-SRSS-TB**	6.0(.236)	9.0(.354)	1,500	3,000
8	**BM08B-SRSS-TB**	**SM08B-SRSS-TB**	7.0(.276)	10.0(.394)	1,500	3,000
9	**BM09B-SRSS-TB**	**SM09B-SRSS-TB**	8.0(.315)	11.0(.433)	1,500	3,000
10	**BM10B-SRSS-TB**	**SM10B-SRSS-TB**	9.0(.354)	12.0(.472)	1,500	3,000
11	**BM11B-SRSS-TB**	**SM11B-SRSS-TB**	10.0(.394)	13.0(.512)	1,500	3,000
12	**BM12B-SRSS-TB**	**SM12B-SRSS-TB**	11.0(.433)	14.0(.551)	1,500	3,000
13	**BM13B-SRSS-TB**	**SM13B-SRSS-TB**	12.0(.472)	15.0(.591)	1,500	3,000
14	**BM14B-SRSS-TB**	**SM14B-SRSS-TB**	13.0(.512)	16.0(.630)	1,500	3,000
15	**BM15B-SRSS-TB**	**SM15B-SRSS-TB**	14.0(.551)	17.0(.669)	1,500	3,000
20	–	**SM20B-SRSS-TB**	19.0(.748)	22.0(.866)	–	3,000

Material and Finish
Contact: Copper alloy, copper-undercoated, tin/lead-plated Housing: Polyamide, UL94V-0, natural (ivory) Solder tab: Brass, copper-undercoated, tin/lead-plated

Note: 1. The products listed above are supplied on embossed-tape.
2. Contact JST for the headers with gold-plated pins.
3. Contact JST for the top entry type headers with suction cap.
4. SM20B-SRSS-TB is not CSA approved.

Contact

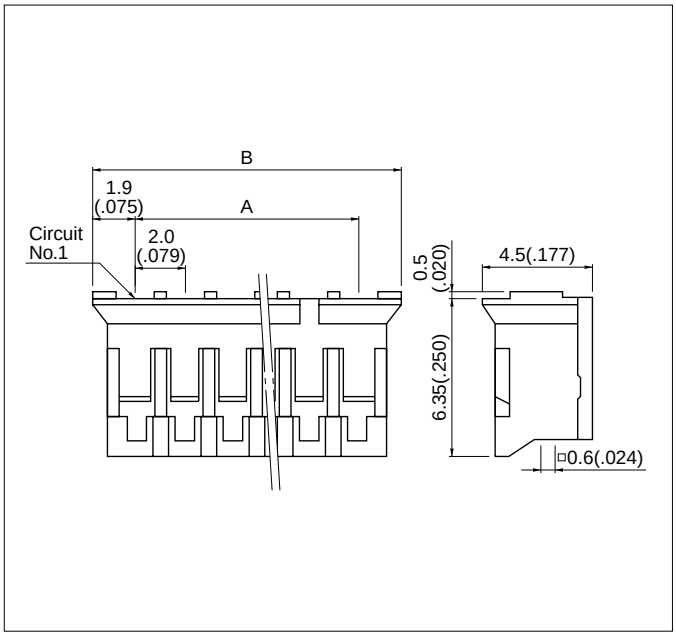


Model No.	Applicable wire			Q'ty / reel
	mm²	AWG #	Insulation O.D. mm(in.)	
SPH-002T-P0.5S	0.05 to 0.22	30 to 24	0.9 to 1.5(.035 to .059)	8,000
SPH-004T-P0.5S	0.032 to 0.08	32 to 28	0.5 to 0.9(.020 to .035)	10,000

Material and Finish
Phosphor bronze, tin-plated

Note: 1. When using AWG#32 or #30 wires, reflow-treated headers (Low insertion force type, Model no. B#B-PH-KL or S#B-PH-KL) are recommendable.
2. Contact JST for gold-plated contacts.

Housing



Cir-cuits	Model No.	Dimensions mm(in.)		Q'ty / box
		A	B	
2	**PHR- 2**	2.0(.079)	5.8(.228)	1,000
3	**PHR- 3**	4.0(.157)	7.8(.307)	1,000
4	**PHR- 4**	6.0(.236)	9.8(.386)	1,000
5	**PHR- 5**	8.0(.315)	11.8(.465)	1,000
6	**PHR- 6**	10.0(.394)	13.8(.543)	1,000
7	**PHR- 7**	12.0(.472)	15.8(.622)	1,000
8	**PHR- 8**	14.0(.551)	17.8(.701)	1,000
9	**PHR- 9**	16.0(.630)	19.8(.780)	1,000
10	**PHR-10**	18.0(.709)	21.8(.858)	1,000
11	**PHR-11**	20.0(.787)	23.8(.937)	1,000
12	**PHR-12**	22.0(.866)	25.8(1.016)	1,000
13	**PHR-13**	24.0(.945)	27.8(1.094)	1,000
14	**PHR-14**	26.0(1.024)	29.8(1.173)	1,000
15	**PHR-15**	28.0(1.102)	31.8(1.252)	1,000
16	**PHR-16**	30.0(1.181)	33.8(1.331)	1,000

Material and Finish
Nylon 66, UL94V-0, natural (white)

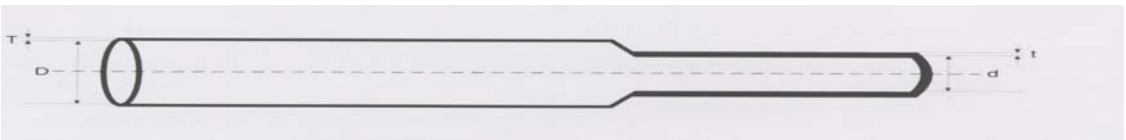
<For reference> As the color identification, the following alphabet shall be put in the underlined part. For availability, delivery and minimum order quantity, contact JST.

ex. **PHR-2-oo**
(blank)…natural (white)
BK…black R…red TR…tomato red BL…blue Y…yellow
L…lemon yellow M…green D…orange N…brown
P…purple PK…pink H…gray LE…light blue
FY…vivid yellow

标准型(S-901)热缩套管尺寸检验标准

产品规格	收缩前尺寸(mm)		完全收缩后尺寸(mm)		包装长度 M
	内径(D)	壁厚(T)	内径(D)	壁厚(T)	
Φ0.8	0.9±0.2	0.15±0.08	≤0.4	0.30±0.06	400±2
Φ1.0	1.5±0.2	0.15±0.08	≤0.6	0.36±0.06	400±2
Φ1.5	2.0±0.2	0.18±0.08	≤0.8	0.40±0.08	400±2
Φ2.0	2.5±0.2	0.18±0.08	≤1.00	0.42±0.08	400±2
Φ2.5	3.0±0.2	0.18±0.08	≤1.25	0.42±0.08	400±2
Φ3.0	3.5±0.3	0.22±0.10	≤1.5	0.46±0.08	400±2
Φ3.5	4.0±0.3	0.25±0.10	≤1.75	0.46±0.08	400±2
Φ4.0	4.5±0.3	0.25±0.10	≤2.0	0.48±0.08	400±2
Φ4.5	5.0±0.3	0.25±0.10	≤2.25	0.50±0.10	400±1
Φ5.0	5.5±0.4	0.25±0.10	≤2.5	0.50±0.10	200±1
Φ6.0	6.5±0.4	0.28±0.12	≤3.0	0.56±0.10	200±1
Φ6.5	7.0±0.4	0.28±0.12	≤3.25	0.56±0.10	200±1
Φ7.0	7.5±0.4	0.28±0.12	≤3.5	0.58±0.10	100±1
Φ8.0	8.5±0.5	0.28±0.12	≤4.0	0.60±0.10	100±1
Φ9.0	9.5±0.5	0.30±0.12	≤4.5	0.60±0.10	100±1
Φ10	10.5±0.5	0.30±0.12	≤5.0	0.60±0.10	100±1
Φ11	11.5±0.5	0.30±0.12	≤5.5	0.60±0.10	100±1
Φ12	12.5±0.5	0.30±0.12	≤6.0	0.60±0.10	100±1
Φ13	13.5±0.5	0.35±0.12	≤6.5	0.65±0.12	100±1
Φ14	14.5±0.5	0.35±0.12	≤7.0	0.65±0.12	100±1
Φ15	15.5±0.5	0.40±0.12	≤7.5	0.65±0.12	100±1
Φ16	16.5±0.5	0.36±0.12	≤8.0	0.65±0.12	50±0.5
Φ17	17.5±0.5	0.36±0.12	≤8.5	0.65±0.12	50±0.5
Φ18	18.7±0.6	0.40±0.15	≤9.0	0.70±0.12	50±0.5
Φ20	20.6±0.6	0.40±0.15	≤10.0	0.75±0.15	50±0.5
Φ22	22.7±0.6	0.40±0.15	≤11.0	0.80±0.15	50±0.5
Φ25	25.5±0.7	0.40±0.15	≤12.5	0.90±0.15	50±0.5
Φ28	29.0±0.7	0.45±0.20	≤14.0	0.95±0.15	50±0.5
Φ30	31.0±0.7	0.45±0.20	≤15.0	0.95±0.15	50±0.5
Φ35	36.0±1.0	0.50±0.22	≤17.5	1.00±0.20	50±0.5
Φ40	41.0±1.0	0.55±0.25	≤20.0	1.10±0.25	50±0.5
Φ45	46.0±1.0	0.55±0.25	≤22.5	1.10±0.25	50±0.5
Φ50	51.5±1.5	0.60±0.25	≤26.0	1.20±0.25	50±0.5
Φ55	≥55	0.60±0.25	≤28.0	1.20±0.25	50±0.5
Φ60	≥60	0.60±0.25	≤30.0	1.20±0.25	50±0.5
Φ70	≥70	0.70±0.30	≤35.0	1.45±0.25	50±0.5
Φ80	≥80	0.70±0.30	≤40.0	1.45±0.25	50±0.5
Φ95	≥95	0.70±0.30	≤45.0	1.45±0.25	50±0.5
Φ100	≥100	0.70±0.30	≤50.0	1.45±0.25	50±0.5

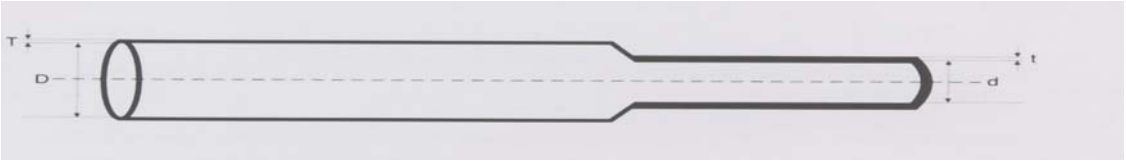
附产品图示:



薄壁型(S-901A)热缩套管尺寸检验标准

产品规格	收缩前尺寸(mm)		完全收缩后尺寸(mm)		包装长度 M
	内径(D)	壁厚(T)	内径(D)	壁厚(T)	
Φ0.5	0.7±0.2	0.09±0.05	≤0.4	0.22±0.06	400±2
Φ0.6	0.8±0.2	0.12±0.05	≤0.4	0.22±0.06	400±2
Φ0.8	0.9±0.2	0.12±0.05	≤0.4	0.25±0.06	400±2
Φ1.0	1.5±0.2	0.10±0.05	≤0.6	0.25±0.06	400±2
Φ1.5	2.0±0.2	0.10±0.05	≤0.8	0.25±0.06	400±2
Φ2.0	2.5±0.2	0.13±0.06	≤1.00	0.28±0.06	400±2
Φ2.5	3.0±0.2	0.15±0.06	≤1.25	0.28±0.06	400±2
Φ3.0	3.5±0.3	0.15±0.06	≤1.5	0.30±0.06	400±2
Φ3.5	4.0±0.3	0.15±0.06	≤1.75	0.30±0.06	400±2
Φ4.0	4.5±0.3	0.15±0.06	≤2.0	0.30±0.06	400±2
Φ4.5	5.0±0.3	0.15±0.06	≤2.25	0.30±0.06	400±1
Φ5.0	5.5±0.4	0.15±0.06	≤2.5	0.30±0.06	200±1
Φ6.0	6.5±0.4	0.15±0.06	≤3.0	0.30±0.06	200±1
Φ7.0	7.5±0.4	0.18±0.08	≤3.5	0.36±0.08	200±1
Φ8.0	8.5±0.5	0.18±0.08	≤4.0	0.36±0.08	200±1
Φ9.0	9.5±0.5	0.18±0.08	≤4.5	0.36±0.08	200±1
Φ10	10.5±0.5	0.18±0.08	≤5.0	0.36±0.08	200±1
Φ11	11.5±0.5	0.18±0.08	≤5.5	0.36±0.08	200±1
Φ12	12.5±0.5	0.18±0.08	≤6.0	0.36±0.08	100±1
Φ13	13.5±0.5	0.20±0.08	≤6.5	0.40±0.10	100±1
Φ14	14.5±0.5	0.20±0.08	≤7.0	0.40±0.10	100±1
Φ15	15.5±0.5	0.20±0.08	≤7.5	0.40±0.10	100±1

附产品图示:



说明：我公司生产的热缩套管**产品铅、镉、汞、六价铬、PBB、PBDE等环境管理物质含量**符合欧盟 **RoHS** 指令和 **SONY SS-00259** 环境技术标准，其中黑色热缩套管是无卤环保产品。

UL 热缩套管性能特性表

阻燃、柔软、绝缘、低温收缩
收缩比率：2：1
纵向收缩率：≤5%
最低收缩温度：90℃
连续使用温度：-55℃~125℃

性能 Properties

性能 Properties	测试条件 Condition	指标 Value
物理性能：抗张强度 Physical: Tensile strength		≥10.4Mpa
断裂伸长率 Elongation		≥200%
老化后抗张强度 Tensile strength afrer aging	158±1℃,168hr	不小于老化前的 70% ≥70% of original
老化后断裂伸长率 Elongation after aging		≥100%
热冲击 Heat shock	250℃,1hr	无裂纹 No cracking
冷弯曲 Cold bend	-30℃,1hr	无裂纹 No cracking
电性能： 绝缘耐压 Electrical: DielectricVoltage withstan	60sec	≥2500V
体积电阻率 Volume resistivity		≥10^{14} Ω·cm
化学性能：铜腐蚀 Corrosion	158±1℃,168hr	Pass
Chemical: 铜稳定性 Copper stability	158±1℃,168hr	伸长率≥100%
阻燃性 Flammability	VW-1	Pass
电压等级 Voltage rating	600V/300V	
温度等级 Temperature rating	125℃	

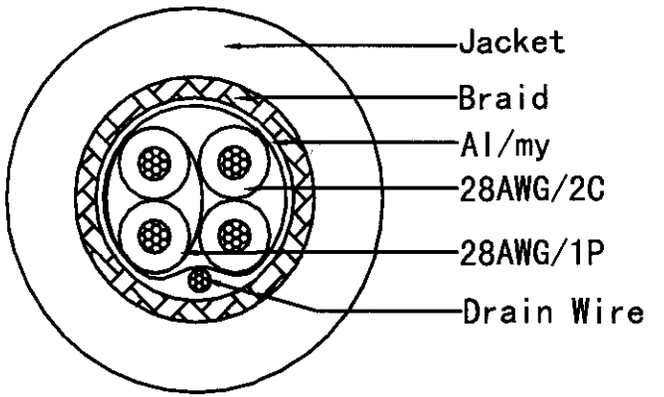
CHINGLUNG WIRE & CABLE CO.,LTD

SPECIFCATION	UL2725 28AWG/1P+28AWG/2C+AL/MY+DW+BRAID+JACKET		
ITEM		SPECIFCATION	
CONDUCTOR	AWG	28AWG/1P	28AWG/2C
	MATERIAL	TINNED COPPER	TINNED COPPER
	COND.SIZE	7/0.127mm	7/0.127mm
INSULATION	AVG.THICK	0.23mm	0.23mm
	MATERIAL	HD-PE	SR-PVC
	OD	0.85±0.05mm	0.85±0.05mm
SHIELD	MATERIAL	AL/MY (Face outside)	
	COVERAGE	100%	
	OVERLAP	25%	
DRAIN	MATERIAL	TINNED COPPER	
	COND.SIZE	7/0.127mm	
BRAID	MATERIAL	TINNED COPPER	
	COND.SIZE	16/5/0.10mm	
	COVERAGE	85%	
JACKET	AVG.THICK	0.45mm	
	MATERIAL	80℃ 60P/PVC	
	COLOR	BEIGE/HALF MATT (CUL14132)	
	OD	3.50±0.15mm	

TO: 采购 杨'S

FM: 庆龙工程

CROSS SECTION



COLOR CODE

28AWG/1P:

GREEN-WHITE

28AWG/2C:

1.BLACK 2.RED

MARKING

E238846 AWM 2725 80℃ 30V VW-1
28AWG/1P AND 28AWG/2C HIGH SPEED
USB2.0 CABLE CHINGLUNG

ELECTRICAL CHARACTERISTICS	PHYSICAL PROPERTIES
1.Rating: TEMP 80℃ Rating voltage:30volts 2.Conductor Resistance: AT 20℃ MAX 28AWG:237.25Ω/KM	

PRINTING COLOR		BLACK	
APPROVED		CUSTOMER	稳 德
CHECKED		REV	071127001
DRAWING		DATE	27-Nov-07

TEL: 0769-83665661 83665662 FAX: 83665663

Test Report

No.: CANEC23004242101 **Date:** Jun 14, 2023

Client Name: SHENZHEN CHEN JIA TECHNOLOGY CO., LTD.

Client Address: RM506, SHIYUAN CENTER, FENGHUA GARDEN, BAISHIXIA, FUYONG TOWN, BAOAN DISTRICT, SHENZHEN

Sample Name:	HOUSING
Model No.:	XAP-04V-1
Material No.:	XAP-04V-1
Client Ref. Information:	SEE ATTACHMENT
Main Substance:	PA, PA 6, PA 66, PA 6T, PA 9T, PBT, PPS, LCP
Manufacturer:	J.S.T Mfg. Co. LTD

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

SGS Job No.:	GZP23-003973
Sample Receiving Date:	Jun 08, 2023
Testing Period:	Jun 08, 2023 ~ Jun 14, 2023
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 (PBBs), Polybrominated diphenyl ethers (PBDEs), 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

Jessie Li

Jessie-JX Li
Approved Signatory

scan to see the report
E5CBF545

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Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	CAN23-0042421-0001.C001	White plastic

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 (PBBs), Polybrominated diphenyl ethers (PBDEs), 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, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A1
Cadmium(Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
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
Dibutyl Phthalate(DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate(BBP)	1000	mg/kg	50	ND

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检验检测专用章 Inspection & Testing Services

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Test Item(s)	Limit	Unit(s)	MDL	A1
Bis-(2-ethylhexyl) Phthalate(DEHP)	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.

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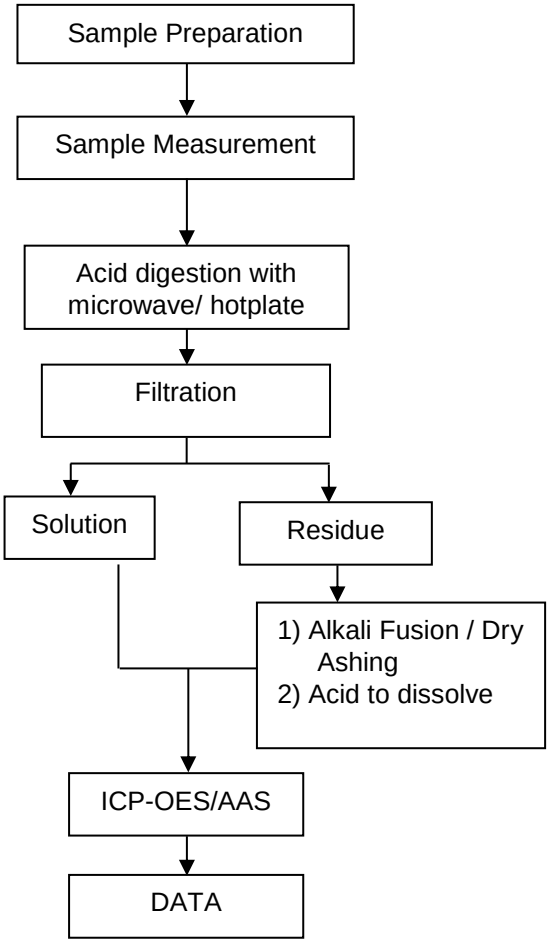
Elements Testing Flow Chart

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



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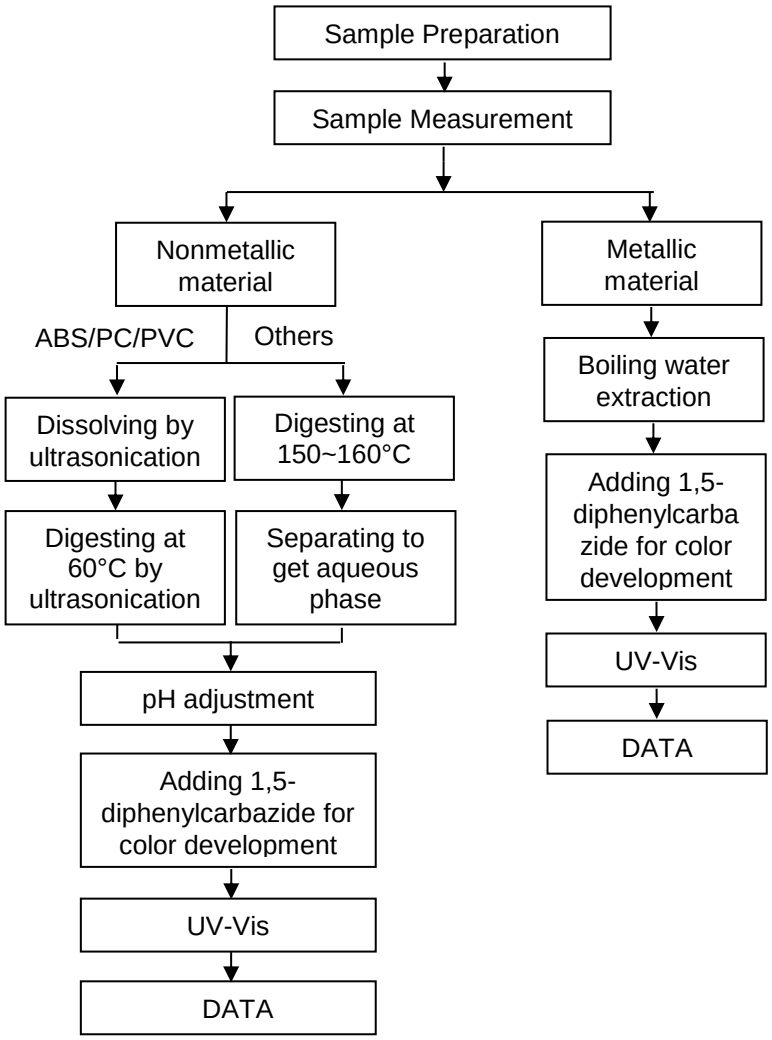
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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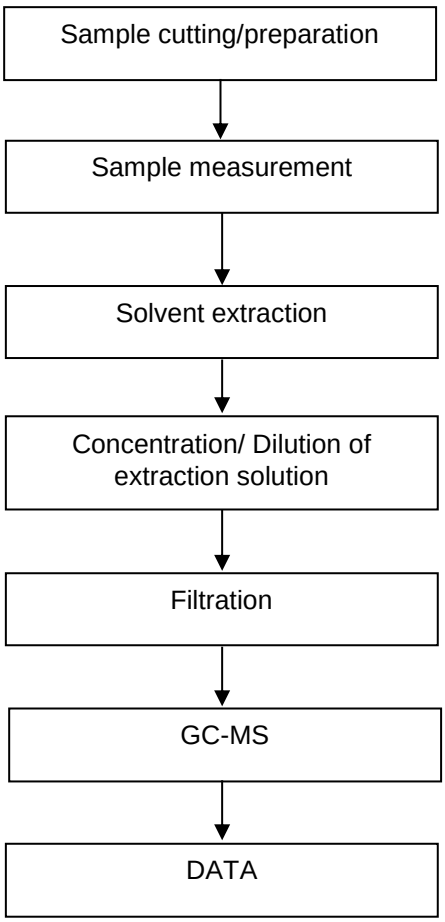
PBBs/PBDEs Testing Flow Chart



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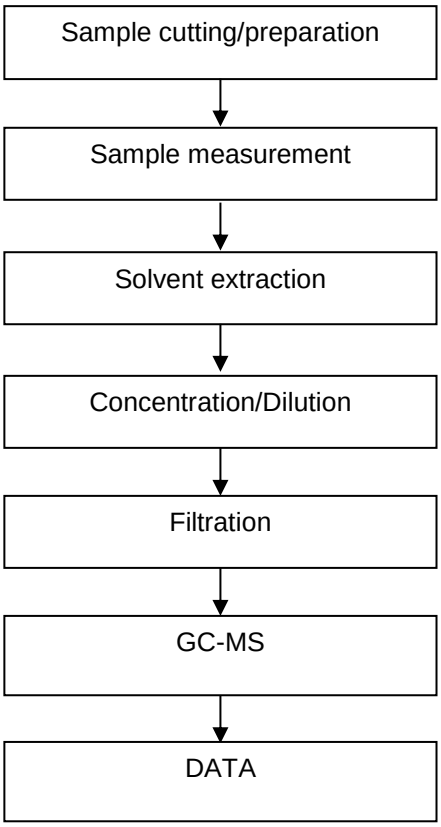
Phthalates Testing Flow Chart



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Attachment:

Be used for: 1, 1.25FJ connector, 1.25FJ-N connector;

2, 2.54SB header, 2.5FJ connector, 2.5FJ-N connector, 2.5SB header;

A, ACA connector, ACH connector, ACH connector, ACHF Connector, ACHL connector,
ADH Connector, AGH connector, AIT connector, AIT-II connector, AN connector,
APSH connector, ARV connector, AS connector, ASG connector, ASR connector,
ASU connector, ATL connector, ATLC connector, ATSS connector,
AUH Connector, AYU1 connector;

B, BC header, BCC connector, BD connector, BD connector, BH connector,
BH connector, BH connector, BHL connector, BHM connector, BHM connector,
BHS connector, BHS connector, BHT connector, BHT connector,
BIC connector, BL connector, BTT connector;

C, CFF connector, CIF connnecor, CIT connector, CK connector, CL connector, CN connector,
CN connector, CPI connector, CPT connector, CR connector, CRK connector, CS connector,
CSH connector, CSR connector, CZ/CZW connector, CZH/CZHW connector;

D, DA connector, DAC connector, DB connector, DCJ connector, DD/DS connector,
DIM connector, DIN connector, DM-144P connector, DM-144P connector,
DM-200P connector, DM-72P connector, DR connector, DV connector, Dsub connector;

E, E-4, EA1 connector, EA2 connector, EH connector, EL connector, EP connector, EP-1;

F, FAB connector, FAZ connector, FCH Connector, FCT connector, FDZ connector,
FE connector, FFS connector, FGEM connector, FH connector, FHA Connector,
FHH connector, FHJ connector, FHS connector, FHSY connector, FHY connector,
FJ connector, FJ-K connector, FJ-L connector, FJ-V connector, FKZ connector,
FLH connector, FLT connector, FLZ connector, FLZT connector, FLZX connector,
FM connector, FMN connector, FMS connector, FMZ connector, FOX connector,
FPZ connector, FUN connector, FVX connector, FVXL Connector, FVXS connector,
FXM connector, FXR connector, FXRH connector, FXS connector, FXV connector,
FXVL Connector, FXW connector, FXY connector, FXZ connector, FXZT connector,
FY connector, FZ connector, FZA Connector, FZC Connector;

G, GH connector, GHD connector, GIT connector, GIT connector, GVH connector;

H, HCH connector, HCM connector, HIC connector, HIL connector, HIT connector,
HL connector, HL connector, HM connector, HPD-M2A, HPS connector, HQF connector,
HQM connector, HR connector, HR connector, HSDP connector, HTB connector,
HVD connector, HVGT connector, HVGW connector, HVQ connector;

I, IG connector, IS Connector;

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J, JAK connnector, JAN connector, JAS connector, JAV connector, JDV connector,
JE connector, JED connector, JET connector, JFA connector, JFC connector,
JFPS connector, JL connector, JM connector, JMC connector, JMD connector,
JQ connector, JU connector, JUX connector, JWPF connector, JWPF connector,
JWPS connector, JWPS connector, JXV connector;
K, KR connector, KRD connector, KRW connector;
L, LC connector, LD-Y connector, LEA connector, LEB connector, LEH connector,
LEK connector, LEL connector, LEN connector, LEX connector, LV connector;
M, MBS header, MD connector, MEC connector, MG connector, MIH connector,
MIO connector, MJ connector, MMJ connector, MQ connector, MS connector,
MSA connector, MSA terminal, MUF connector, MV connector, MWP connector;
N, NAC-I connector, NFG connector, NH connector, NR connector, NRD connector,
NSH connector, NSHD connector, NV connector, NVA connector;
O, OTZ connector;
P, PA connector, PA connector, PAD connector, PAF connector, PAL connector,
PB connector, PBV connector, PC Card connector, PEA connector, PFW connector,
PH connector, PH connector, PHD connector, PLI connector, PND connector, PNI connector,
PNI connector, PNI connector, PS connector, PUD connector, PXA connector;
R, RA connector, RAD connector, RARSF connector, RC connector, RCD-M9BE,
RCY connector, RE connector, RF connector, RFC connector, RHM connector,
RIC connector, RIJ connector, RIZ connector, RK header, RPJ connector, RPZ connector,
RTZ connector, RV connector, RWZ connector, RWZ connector, RX connector;
S, SAB connector, SAC connector, SAN connector, SBO connector, SBO2 connector,
SCD-M15B, SCK connector, SCN connector, SCR connector, SCRL Connector,
SCRT Connector, SCYT Connector, SD connector, SDF connector, SDHK Connector,
SIN connector, SDHL connector, SDHR Connector, SDK connector, SDN connector,
SFH connector, SGN connector, SH connector, SHC connector, SHD connector,
SHJ connector, SHL connector, SHLD connector, SHLV connector, SJN connector,
SL connector, SM connector, SMF connector, SNA connector, SPF connector,
SPH2 connector, SQF connector, SQH connector, SQM connector, SQSII connector,
SQS connector, SQSK connector, SQW connector, SQXW connector, SQZ connector,
SR/SZ connector, SRV connector, SSR connector, SUH connector, SUR connector,
SV connector, SZN connector;
T, TB header, TCS connector, THR connector, TR/TRW connector, TRZ connector,

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TSD connector, TSF connector, TZ/TZW connector;

U, UB connector, UB3 connector;

V, V connector, VA connector, VB connector, VH connector, VH connector, VL connector,

VL connector, VR connector, VS header, VT connector, VU connector, VYH connector;

W, WIC connector, WPJ connector, WPJ connector, WPK connector;

X, XA connector, XA connector, XA connector, XA connector, XA connector,

XAD connector, XAD connector, XAF connector, XAG connector, XAG connector,

XH connector, XH connector, XL connector, XL connector, XM connector,

XM connector, XMA connector, XNI connector, XSR connector;

Y, YF-1, YL connector, YLN connector;

Z, ZA connector, ZE connector, ZF/ZFW connector, ZH connector, ZPD connector,

ZR connector, ZRO connector, ZM connector, ZL connector

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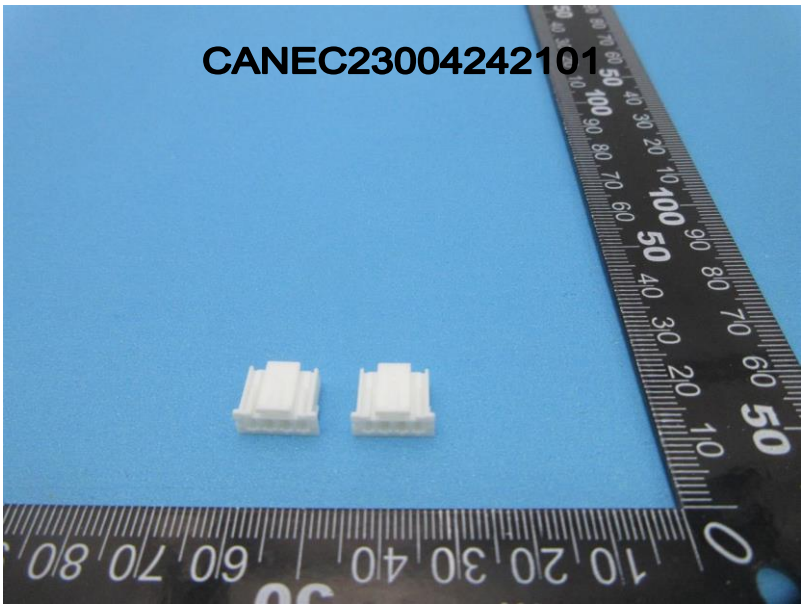
Sample Photo:



CAN23-0042421-0001.C001

SGS authenticate the photo on original report only

*** End of Report ***

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Test Report

No.: CANEC23004242102 **Date:** Jun 14, 2023

Client Name: SHENZHEN CHEN JIA TECHNOLOGY CO., LTD.

Client Address: RM506, SHIYUAN CENTER, FENGHUA GARDEN, BAISHIXIA, FUYONG TOWN, BAOAN DISTRICT, SHENZHEN

Sample Name:	TERMINAL
Model No.:	SXA-001T-P0.6
Material No.:	SXA-001T-P0.6
Client Ref. Information:	SEE ATTACHMENT
Main Substance:	copper alloy, phosphor bronze, copper alloy tin-plated, copper alloy, gold-plated, phosphor bronze tin-plated, phosphor bronze gold-plated
Manufacturer:	J.S.T Mfg. Co. LTD

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

SGS Job No.:	GZP23-003973
Sample Receiving Date:	Jun 08, 2023
Testing Period:	Jun 08, 2023 ~ Jun 14, 2023
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 and Hexavalent chromium	Pass

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

Jessie-JX Li
Approved Signatory

scan to see the report
A8167252

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Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	A2	CAN23-0042421-0001.C002	Silvery plated 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 and Hexavalent chromium

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

Test Item(s)	Limit	Unit(s)	MDL	A2
Cadmium(Cd)	100	mg/kg	2	ND
Lead(Pb)	1000	mg/kg	2	20
Mercury(Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▼	-	μg/cm²	0.10	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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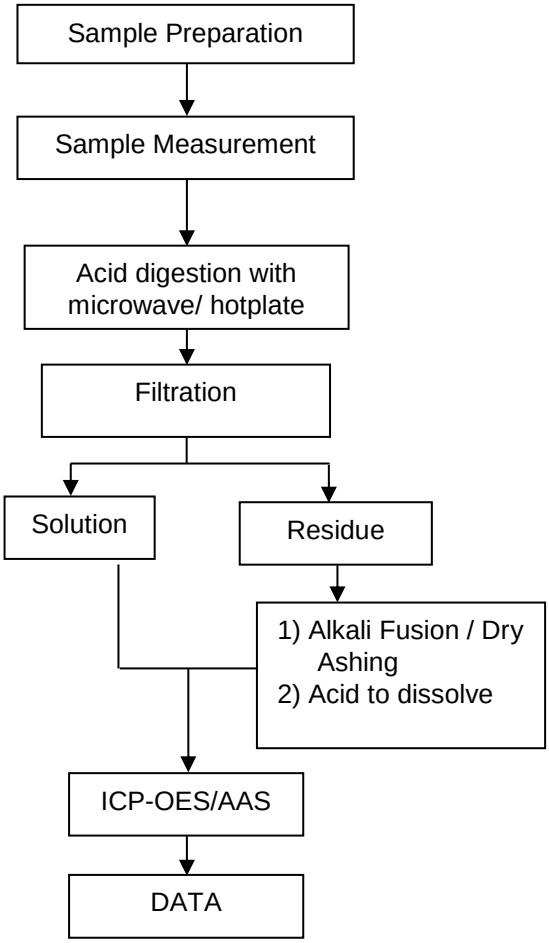
Elements Testing Flow Chart

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



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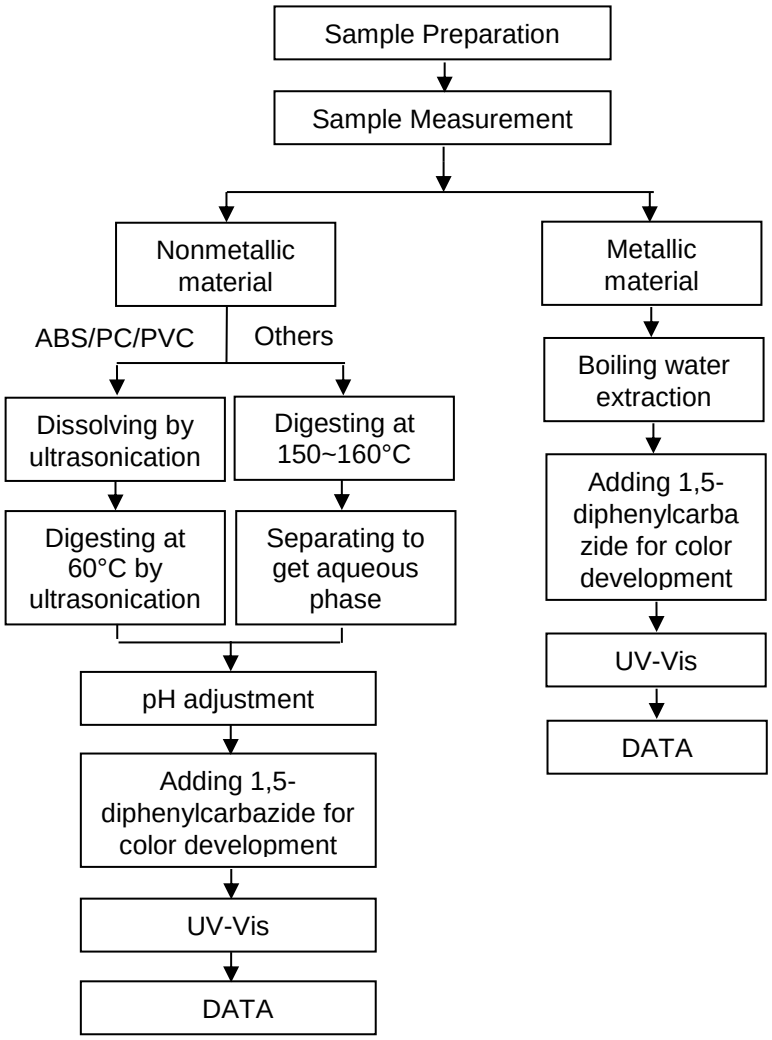
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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Attachment:

Be used for: 1, 1.25FJ connector, 1.25FJ-N connector;

2, 2.54SB header, 2.5FJ connector, 2.5FJ-N connector, 2.5SB header;

A, ACA connector, ACH connector, ACH connector, ACHF Connector, ACHL connector,
ADH Connector, AGH connector, AIT connector, AIT-II connector, AN connector,
APSH connector, ARV connector, AS connector, ASG connector, ASR connector,
ASU connector, ATL connector, ATLC connector, ATSS connector,
AUH Connector, AYU1 connector;

B, BC header, BCC connector, BD connector, BD connector, BH connector,
BH connector, BH connector, BHL connector, BHM connector, BHM connector,
BHS connector, BHS connector, BHT connector, BHT connector,
BIC connector, BL connector, BTT connector;

C, CFF connector, CIF connnecor, CIT connector, CK connector, CL connector, CN connector,
CN connector, CPI connector, CPT connector, CR connector, CRK connector, CS connector,
CSH connector, CSR connector, CZ/CZW connector, CZH/CZHW connector;

D, DA connector, DAC connector, DB connector, DCJ connector, DD/DS connector,
DIM connector, DIN connector, DM-144P connector, DM-144P connector,
DM-200P connector, DM-72P connector, DR connector, DV connector, Dsub connector;

E, E-4, EA1 connector, EA2 connector, EH connector, EL connector, EP connector, EP-1;

F, FAB connector, FAZ connector, FCH Connector, FCT connector, FDZ connector,
FE connector, FFS connector, FGEM connector, FH connector, FHA Connector,
FHH connector, FHJ connector, FHS connector, FHSY connector, FHY connector,
FJ connector, FJ-K connector, FJ-L connector, FJ-V connector, FKZ connector,
FLH connector, FLT connector, FLZ connector, FLZT connector, FLZX connector,
FM connector, FMN connector, FMS connector, FMZ connector, FOX connector,
FPZ connector, FUN connector, FVX connector, FVXL Connector, FVXS connector,
FXM connector, FXR connector, FXRH connector, FXS connector, FXV connector,
FXVL Connector, FXW connector, FXY connector, FXZ connector, FXZT connector,
FY connector, FZ connector, FZA Connector, FZC Connector;

G, GH connector, GHD connector, GIT connector, GIT connector, GVH connector;

H, HCH connector, HCM connector, HIC connector, HIL connector, HIT connector,
HL connector, HL connector, HM connector, HPD-M2A, HPS connector, HQF connector,
HQM connector, HR connector, HR connector, HSDP connector, HTB connector,
HVD connector, HVGT connector, HVGW connector, HVQ connector;

I, IG connector, IS Connector;

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J, JAK connnector, JAN connector, JAS connector, JAV connector, JDV connector,
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P, PA connector, PA connector, PAD connector, PAF connector, PAL connector,
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PH connector, PH connector, PHD connector, PLI connector, PND connector, PNI connector,
PNI connector, PNI connector, PS connector, PUD connector, PXA connector;
R, RA connector, RAD connector, RARSF connector, RC connector, RCD-M9BE,
RCY connector, RE connector, RF connector, RFC connector, RHM connector,
RIC connector, RIJ connector, RIZ connector, RK header, RPJ connector, RPZ connector,
RTZ connector, RV connector, RWZ connector, RWZ connector, RX connector;
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SHJ connector, SHL connector, SHLD connector, SHLV connector, SJN connector,
SL connector, SM connector, SMF connector, SNA connector, SPF connector,
SPH2 connector, SQF connector, SQH connector, SQM connector, SQSII connector,
SQS connector, SQSK connector, SQW connector, SQXW connector, SQZ connector,
SR/SZ connector, SRV connector, SSR connector, SUH connector, SUR connector,
SV connector, SZN connector;
T, TB header, TCS connector, THR connector, TR/TRW connector, TRZ connector,

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TSD connector, TSF connector, TZ/TZW connector;

U, UB connector, UB3 connector;

V, V connector, VA connector, VB connector, VH connector, VH connector, VL connector, VL connector, VR connector, VS header, VT connector, VU connector, VYH connector;

W, WIC connector, WPJ connector, WPJ connector, WPK connector;

X, XA connector, XA connector, XA connector, XA connector, XA connector, XAD connector, XAD connector, XAF connector, XAG connector, XAG connector, XH connector, XH connector, XL connector, XL connector, XM connector, XM connector, XMA connector, XNI connector, XSR connector;

Y, YF-1, YL connector, YLN connector;

Z, ZA connector, ZE connector, ZF/ZFW connector, ZH connector, ZPD connector, ZR connector, ZRO connector, ZM connector, ZL connector

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Sample Photo:



CAN23-0042421-0001.C002

SGS authenticate the photo on original report only

*** End of Report ***

检验检测专用章 Inspection & Testing Services

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Testing Center / Chemical Laboratory

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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 t (86–20) 82155555 www.sgsgroup.com.cn
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)

JST

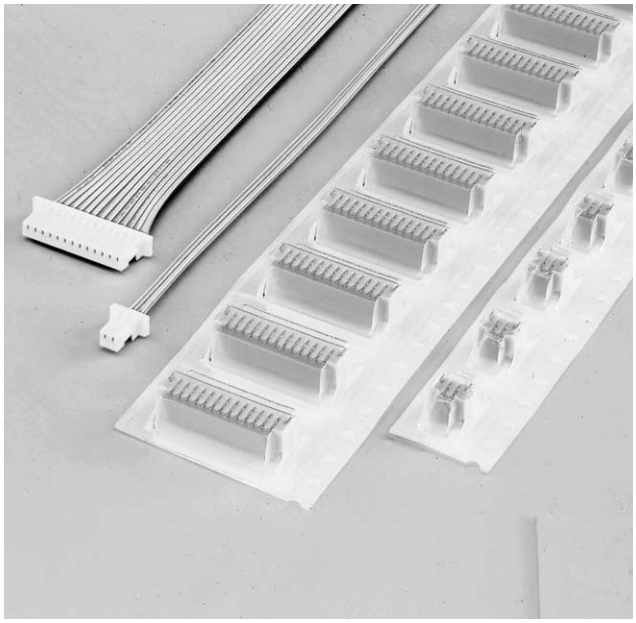
Crimp

1.0mm (.039") pitch

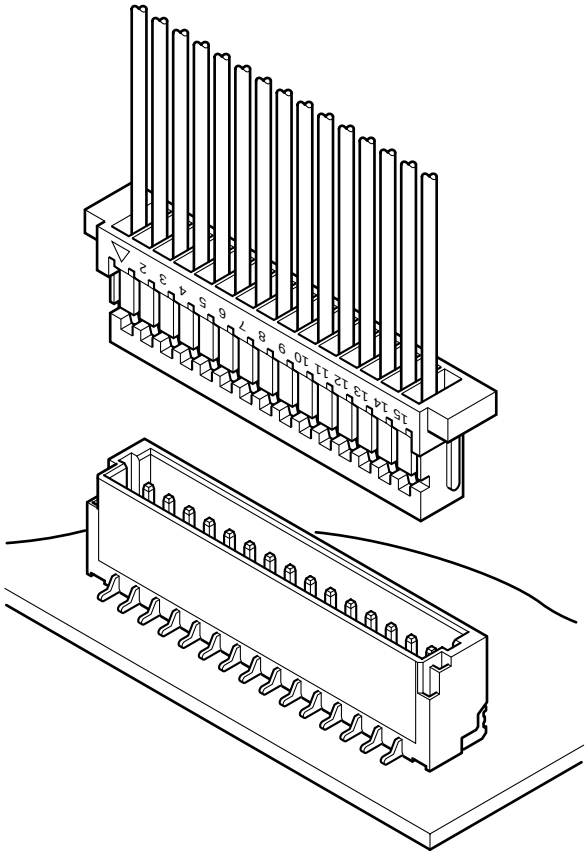
SH CONNECTOR

Emboss Tape

Disconnectable Crimp style connectors



The world's first 1.0mm (.039") pitch crimp style connector.



Features

• Ultra-compact, low profile design

The SH connector is very small with a mounting height of 2.95mm (.116") for side entry type.

• Compatible with the SR insulation displacement connectors

The same shrouded header can be used for the SR insulation displacement connector.

• Housing lances

The contact retention lances on the resilient housing allow the confirmation of contact lock-in for easy and secure insertion.

Specifications

- Current rating: 1.0A AC, DC (AWG #28)
- Voltage rating: 50V AC, DC
- Temperature range: -25˚C to +85˚C
  (including temperature rise in applying electrical current)
- Contact resistance: Initial value/20m Ω max.
  After environmental testing/40m Ω max.
- Insulation resistance: 100M Ω min.
- Withstanding voltage: 500V AC/minute
- Applicable wire: AWG #32 to #28
  Insulation O.D./0.4 to 0.8mm (.016" to .031")

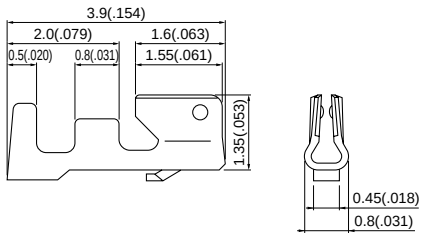
* Contact JST if Lead-Free product is required.
* Refer to "General Instruction and Notice when using Terminals and Connectors" at the end of this catalog.
* Contact JST for details.

Standards

Recognized E60389

Certified LR20812

Contact



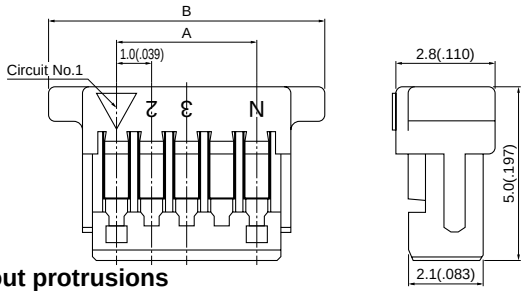
Model No.	Applicable wire			Q'ty / reel
	mm²	AWG#	Insulation O.D. mm(in.)	
SSH-003T-P0.2-H	0.032 to 0.08	32 to 28	0.4 to 0.8(.016 to .031)	23,000

Material and Finish
Phosphor bronze, tin-plated

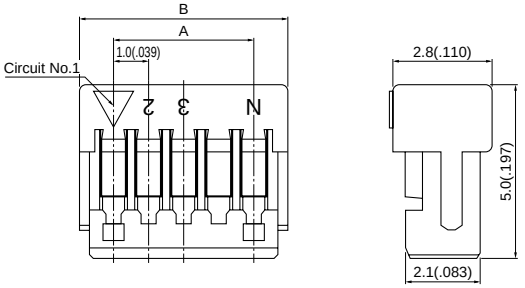
Note: Contact JST for gold-plated contacts.

Housing

With protrusions



Without protrusions



Circuits	Model No.		Dimensions mm(in.)			Q'ty / box
			A	B		
	With protrusions	Without protrusions		With protrusions	Without protrusions	
2	**SHR-02V-S-B**	**SHR-02V-S**	1.0(.039)	5.0(.197)	3.0(.118)	2,000
3	**SHR-03V-S-B**	**SHR-03V-S**	2.0(.079)	6.0(.236)	4.0(.157)	2,000
4	**SHR-04V-S-B**	**SHR-04V-S**	3.0(.118)	7.0(.276)	5.0(.197)	2,000
5	**SHR-05V-S-B**	**SHR-05V-S**	4.0(.157)	8.0(.315)	6.0(.236)	2,000
6	**SHR-06V-S-B**	**SHR-06V-S**	5.0(.197)	9.0(.354)	7.0(.276)	2,000
7	**SHR-07V-S-B**	**SHR-07V-S**	6.0(.236)	10.0(.394)	8.0(.315)	2,000
8	**SHR-08V-S-B**	**SHR-08V-S**	7.0(.276)	11.0(.433)	9.0(.354)	2,000
9	**SHR-09V-S-B**	**SHR-09V-S**	8.0(.315)	12.0(.472)	10.0(.394)	2,000
10	**SHR-10V-S-B**	**SHR-10V-S**	9.0(.354)	13.0(.512)	11.0(.433)	2,000
11	**SHR-11V-S-B**	**SHR-11V-S**	10.0(.394)	14.0(.551)	12.0(.472)	2,000
12	**SHR-12V-S-B**	**SHR-12V-S**	11.0(.433)	15.0(.591)	13.0(.512)	2,000
13	**SHR-13V-S-B**	**SHR-13V-S**	12.0(.472)	16.0(.630)	14.0(.551)	2,000
14	**SHR-14V-S-B**	**SHR-14V-S**	13.0(.512)	17.0(.669)	15.0(.591)	2,000
15	**SHR-15V-S-B**	**SHR-15V-S**	14.0(.551)	18.0(.709)	16.0(.630)	2,000
20	**SHR-20V-S-B**	–	19.0(.748)	23.0(.906)	21.0(.827)	2,000

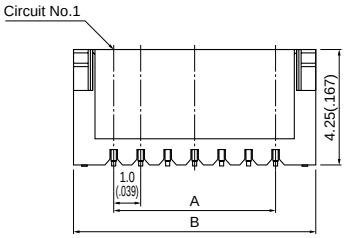
Meterial
PBT, UL94V-0, natural (white)

Note: SHR-20V-S-B is not CSA approved.

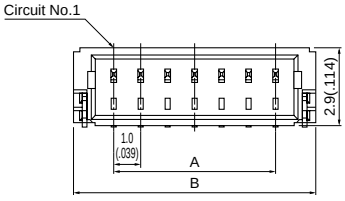
Shrouded header

The shrouded headers are interchangeable with those of the SR insulation displacement connectors.

Top entry type



Side entry type

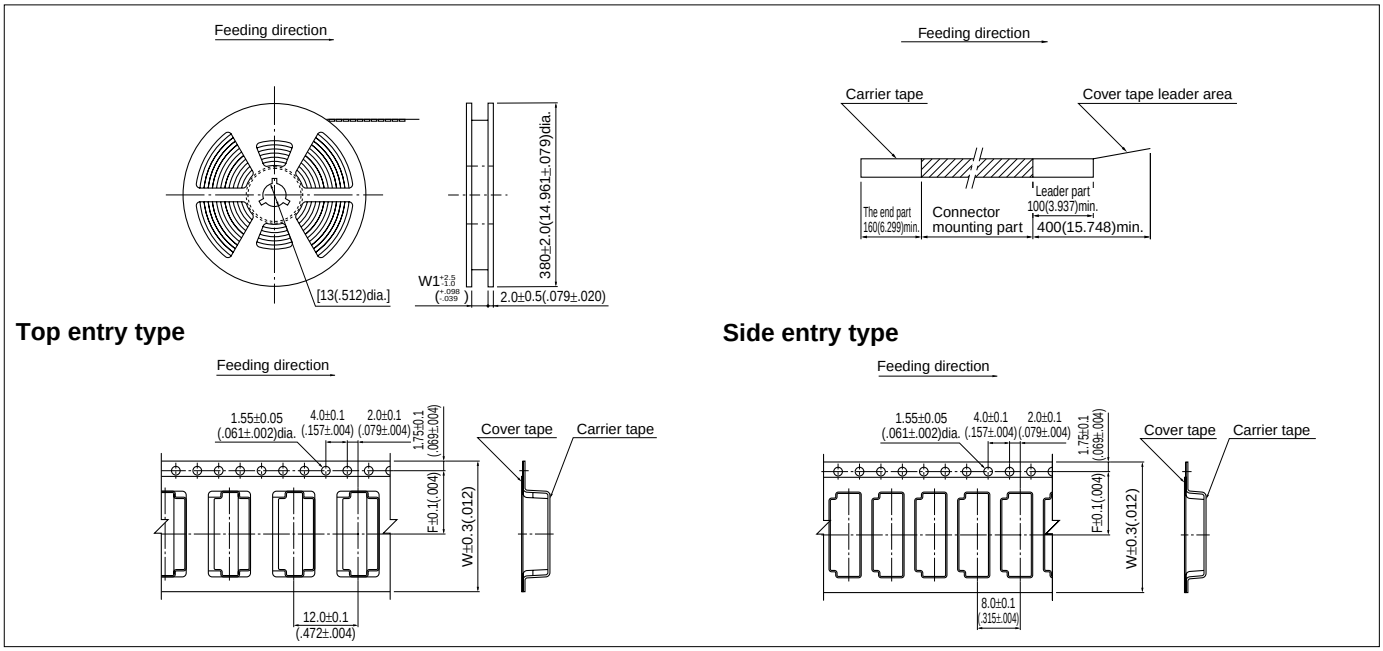


Circuits	Model No.		Dimensions mm(in.)		Q'ty / reel	
	Top entry type	Side entry type	A	B	Top entry type	Side entry type
2	**BM02B-SRSS-TB**	**SM02B-SRSS-TB**	1.0(.039)	4.0(.157)	1,500	3,000
3	**BM03B-SRSS-TB**	**SM03B-SRSS-TB**	2.0(.079)	5.0(.197)	1,500	3,000
4	**BM04B-SRSS-TB**	**SM04B-SRSS-TB**	3.0(.118)	6.0(.236)	1,500	3,000
5	**BM05B-SRSS-TB**	**SM05B-SRSS-TB**	4.0(.157)	7.0(.276)	1,500	3,000
6	**BM06B-SRSS-TB**	**SM06B-SRSS-TB**	5.0(.197)	8.0(.315)	1,500	3,000
7	**BM07B-SRSS-TB**	**SM07B-SRSS-TB**	6.0(.236)	9.0(.354)	1,500	3,000
8	**BM08B-SRSS-TB**	**SM08B-SRSS-TB**	7.0(.276)	10.0(.394)	1,500	3,000
9	**BM09B-SRSS-TB**	**SM09B-SRSS-TB**	8.0(.315)	11.0(.433)	1,500	3,000
10	**BM10B-SRSS-TB**	**SM10B-SRSS-TB**	9.0(.354)	12.0(.472)	1,500	3,000
11	**BM11B-SRSS-TB**	**SM11B-SRSS-TB**	10.0(.394)	13.0(.512)	1,500	3,000
12	**BM12B-SRSS-TB**	**SM12B-SRSS-TB**	11.0(.433)	14.0(.551)	1,500	3,000
13	**BM13B-SRSS-TB**	**SM13B-SRSS-TB**	12.0(.472)	15.0(.591)	1,500	3,000
14	**BM14B-SRSS-TB**	**SM14B-SRSS-TB**	13.0(.512)	16.0(.630)	1,500	3,000
15	**BM15B-SRSS-TB**	**SM15B-SRSS-TB**	14.0(.551)	17.0(.669)	1,500	3,000
20	–	**SM20B-SRSS-TB**	19.0(.748)	22.0(.866)	–	3,000

Material and Finish
Contact: Copper alloy, copper-undercoated, tin/lead-plated Housing: Polyamide, UL94V-0, natural (ivory) Solder tab: Brass, copper-undercoated, tin/lead-plated

Note: 1. The products listed above are supplied on embossed-tape.
2. Contact JST for the headers with gold-plated pins.
3. Contact JST for the top entry type headers with suction cap.
4. SM20B-SRSS-TB is not CSA approved.

Taping specifications

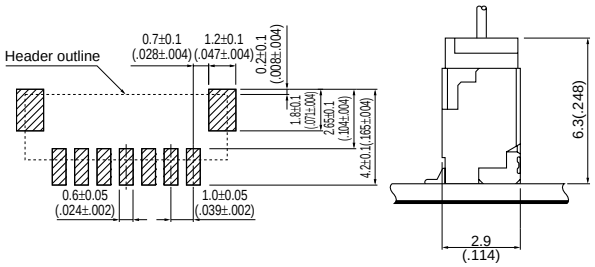


Circuits	Taping dimensions mm(in.)				Reel dimensions mm(in.)		Q'ty / reel	
	F		W		W1			
	Top entry type	Side entry type	Top entry type	Side entry type	Top entry type	Side entry type	Top entry type	Side entry type
2	5.5(.217)	5.5(.217)	12.0(.472)	12.0(.472)	13.5(.531)	13.5(.531)	1,500	3,000
3	5.5(.217)	5.5(.217)	12.0(.472)	12.0(.472)	13.5(.531)	13.5(.531)	1,500	3,000
4	7.5(.295)	5.5(.217)	16.0(.630)	12.0(.472)	17.5(.689)	13.5(.531)	1,500	3,000
5	7.5(.295)	7.5(.295)	16.0(.630)	16.0(.630)	17.5(.689)	17.5(.689)	1,500	3,000
6	7.5(.295)	7.5(.295)	16.0(.630)	16.0(.630)	17.5(.689)	17.5(.689)	1,500	3,000
7	7.5(.295)	7.5(.295)	16.0(.630)	16.0(.630)	17.5(.689)	17.5(.689)	1,500	3,000
8	11.5(.453)	7.5(.295)	24.0(.945)	16.0(.630)	25.5(1.004)	17.5(.689)	1,500	3,000
9	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
10	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
11	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
12	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
13	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
14	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
15	11.5(.453)	11.5(.453)	24.0(.945)	24.0(.945)	25.5(1.004)	25.5(1.004)	1,500	3,000
20	–	20.2(.795)	–	44.0(1.732)	–	45.5(1.791)	–	3,000

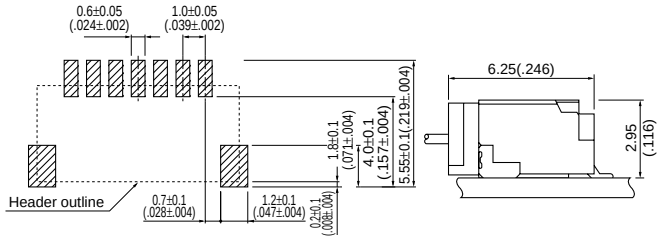
Note: 1. Specifications conform to JIS C 0806. The tape width, connector loading recess square hole dimensions, etc.are determined by the number of circuits and external shape of the connector to be loaded.
2. Specifications are subject to change without prior notice.

PC board layout (viewed from component side) and Assembly layout

Top entry type



Side entry type



Note:
1. Tolerances are non-cumulative: ±0.05mm(±.002") for all centers.
2. The dimensions above should serve as a guideline. Contact JST for details.

Applicator for the semi-automatic press AP-K2N

Contact	Crimp applicator MKS-L-10-3		Compact crimp applicator MKS-LS		Strip-crimp applicator MKS-SC
	with safety cover	without safety cover	with safety cover	without safety cover	with safety cover
SSH-003T-P0.2-H	APLMK SSH/L003-02	APLNC SSH/L003-02	–	–	APLSC SSH/003-02

CTI 华测检测

180000343904

Test Report

Report No. A2230055303101001

Company Name shown on Report	DONGGUAN LINGFREE HARDWARE PLASTICS PRODUCT CO.LTD
Address	2 XIBAO ROAD, XITOU VILLAGE, HOUJIE TOWN, DONGGUAN CITY

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name	EVA套管
Color	黑
Material	EVA
Sample Received Date	Feb. 16, 2023
Testing Period	Feb. 16, 2023 to Feb. 21, 2023
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).
Test Method	Please refer to the following page(s).
Test Result(s)	Please refer to the following page(s).

Approved by: Hill Zheng

Hill Zheng

Technical Manager

Date: Feb. 21, 2023

No. R158925816

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

Test Report

Report No. A2230055303101001

Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS

Test Report

Report No. A2230055303101001

Test Result(s)

Tested Item(s)	Result	MDL
	001	
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	8 mg/kg

Tested Item(s)	Result	MDL
	001	
Polybrominated Biphenyls (PBBs)		
Monobromobiphenyl	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	5 mg/kg

Tested Item(s)	Result	MDL
	001	
Polybrominated Diphenyl Ethers (PBDEs)		
Monobromodiphenyl ether	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	5 mg/kg

Test Report

Report No. A2230055303101001

Test Result(s)

Tested Item(s)	Result	MDL
	001	
Phthalates (DBP, BBP, DEHP, DIBP)		
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

Sample/Part Description

No.	CTI Sample ID	Description
1	001	Black tube with white printing

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

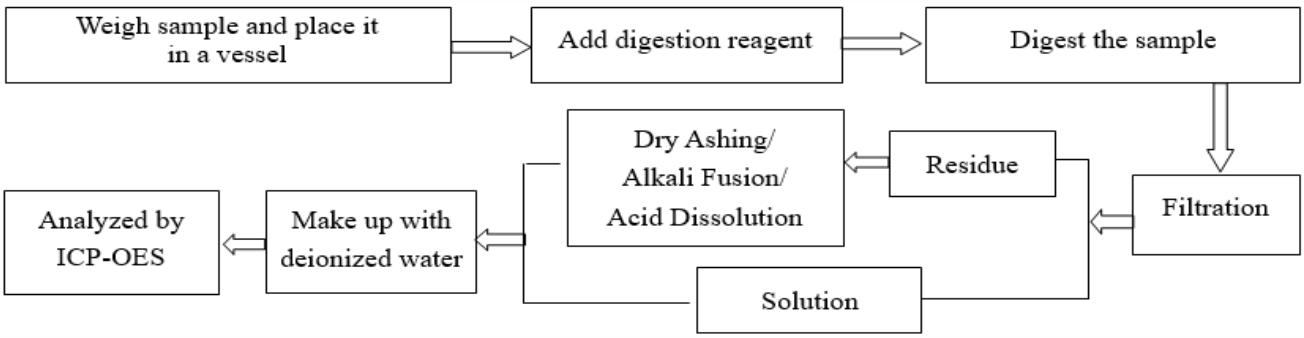
-MDL = Method Detection Limit

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

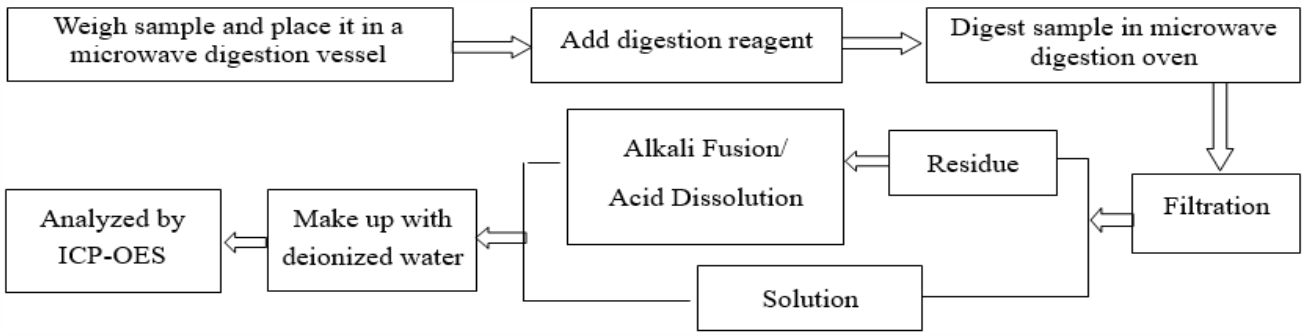
-mg/kg = ppm = parts per million

Test Process

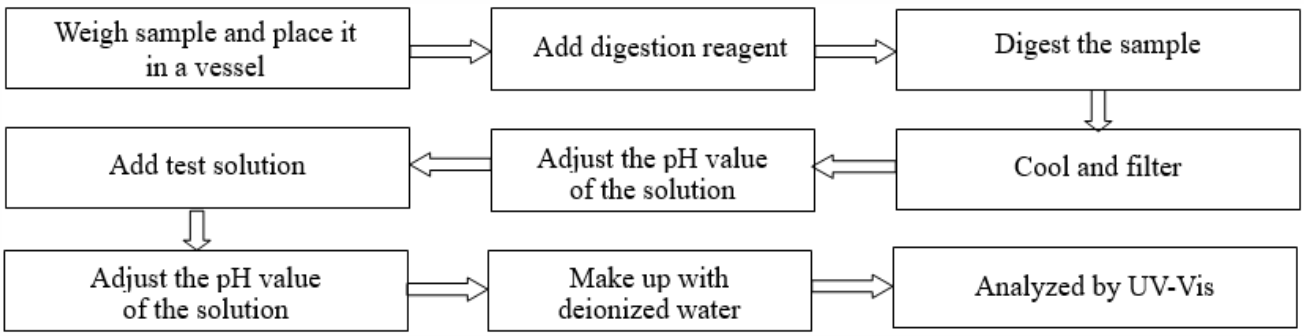
1. Lead (Pb), Cadmium (Cd), Chromium (Cr)



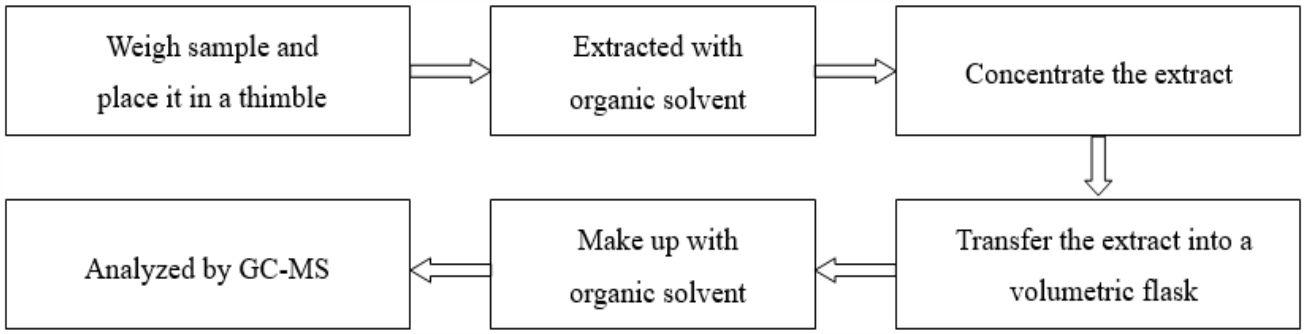
2. Mercury (Hg)



3. Hexavalent Chromium (Cr(VI))

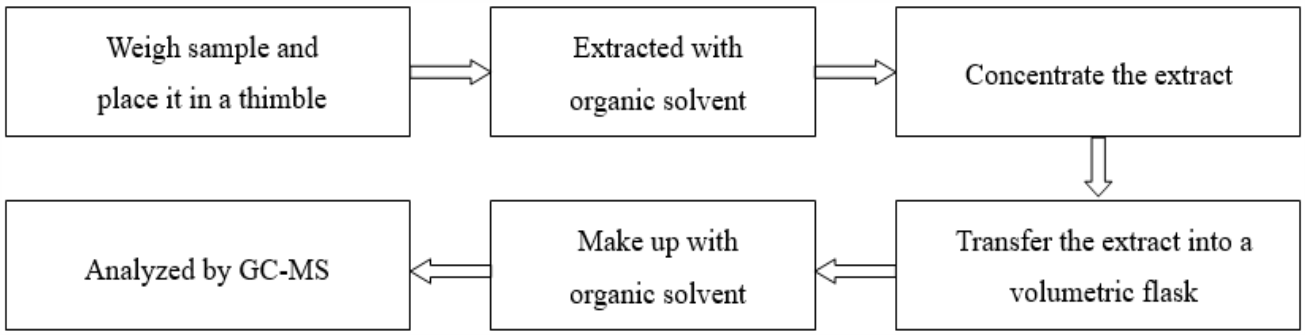


4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



Test Report

5. Phthalates (DBP, BBP, DEHP, DIBP)



Test Report

Report No. A2230055303101001

Photo(s) of the sample(s)



Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 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. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Without written approval of CTI, this report can't be reproduced except in full;
5. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** End of report ***

检测报告
Test Report

报告抬头公司名称 广东银豪塑胶制品有限公司
Company Name shown on Report GUANGDONG RINGDON PLASTIC PRODUCTS CO.,LTD.
地 址 广东省东莞市中堂镇南潢440号
Address NO.440, NANHENG ROAD, ZHONGTANG TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, P.R.CHINA

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	PVC-XLPVC
Sample Name	PVC-XLPVC
样品颜色	白
Color	white
材料名称	PVC-XLPVC
Material	PVC-XLPVC
样品接收日期	2023.02.09
Sample Received Date	Feb. 9, 2023
样品检测日期	2023.02.09-2023.02.14
Testing Period	Feb. 9, 2023 to Feb. 14, 2023

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 郑晴涛 日 期 2023.02.14
Approved by Date
郑晴涛
技术经理 Technical Manager

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)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017和/或IEC 62321-5:2013测试总铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
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	限值 Limit
	002		
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.	8 mg/kg	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.	5 mg/kg	1000 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	限值 Limit
	002		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 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

报告编号 A2230042129101002E
Report No. A2230042129101002E

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	白色塑料颗粒 White plastic grains

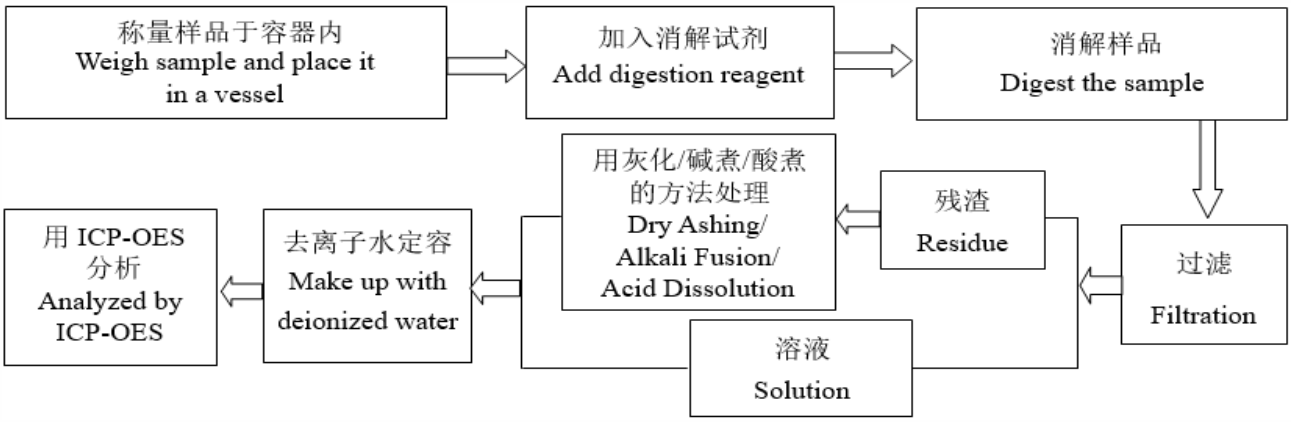
备注: **对于检测铅，镉，汞之样品已消解完全。**
-N.D. = 未检出（小于方法检出限）
-mg/kg = ppm = 百万分之一
-1000 mg/kg = 0.1%

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%

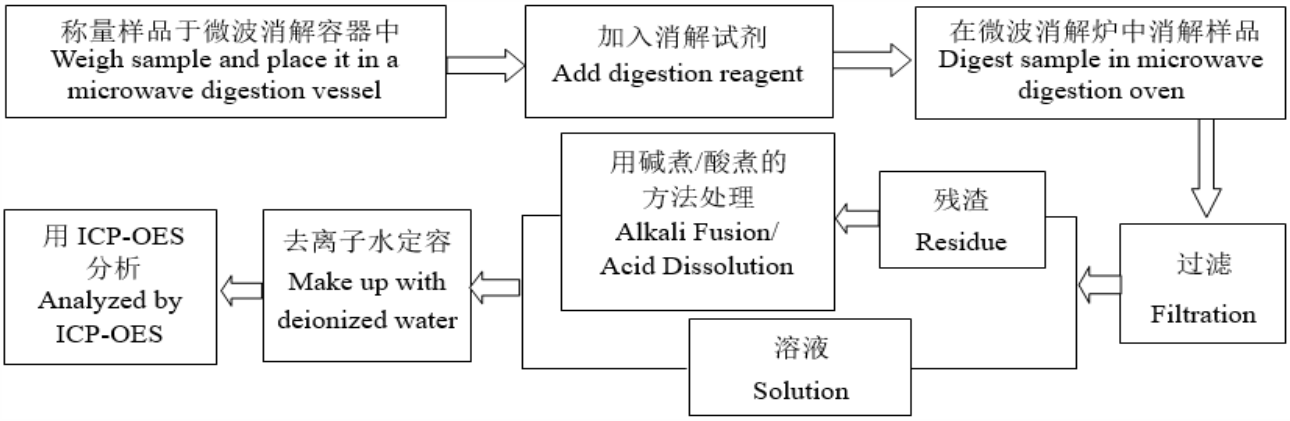
检测报告
Test Report

检测流程 Test Process

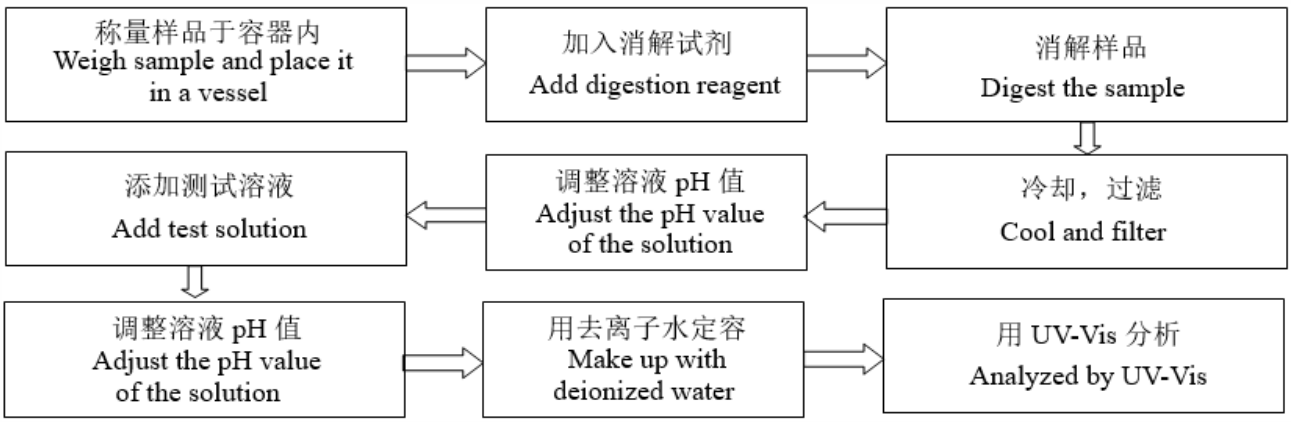
1. 铅(Pb)，镉(Cd)，铬(Cr)
   Lead (Pb), Cadmium (Cd), Chromium (Cr)



2. 汞(Hg)
   Mercury (Hg)

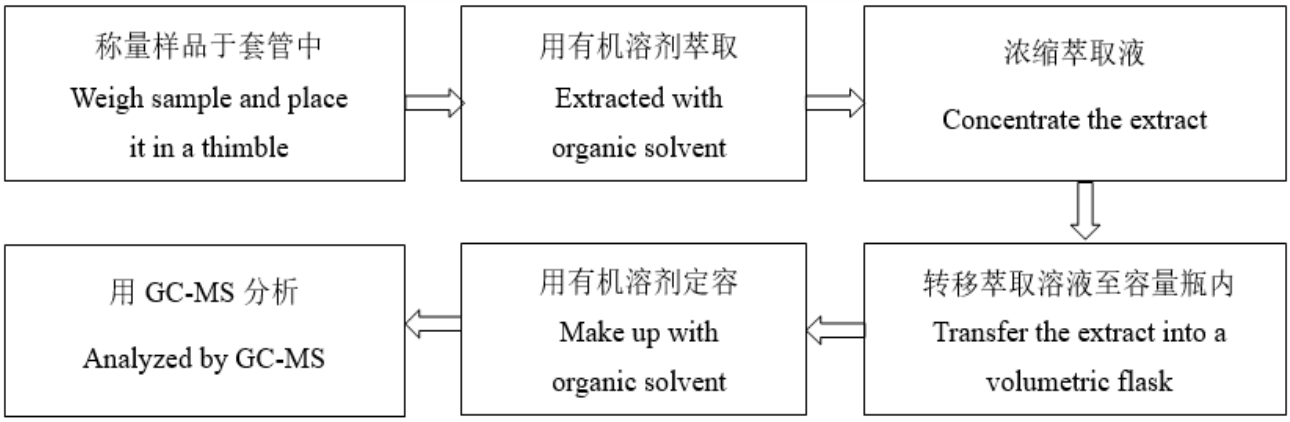


3. 六价铬(Cr(VI))
   Hexavalent Chromium (Cr(VI))



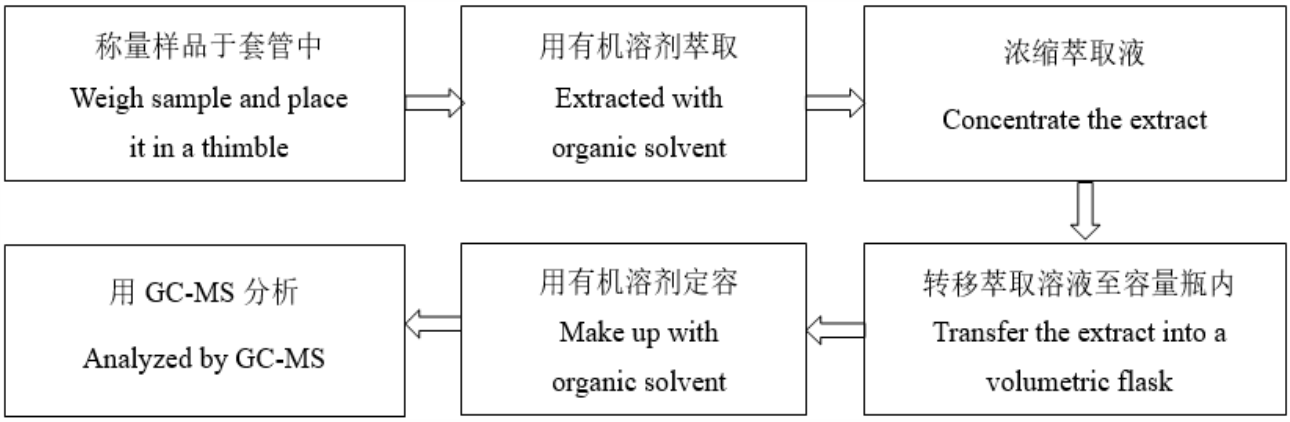
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

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. 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;
5. 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 ***

检测报告
Test Report

报告编号 A2230042129101001E
Report No. A2230042129101001E

报告抬头公司名称 广东银豪塑胶制品有限公司
Company Name shown on Report GUANGDONG RINGDON PLASTIC PRODUCTS CO.,LTD.
地 址 广东省东莞市中堂镇南潢440号
Address NO.440, NANHENG ROAD, ZHONGTANG TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, P.R.CHINA

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	PVC-XLPVC
Sample Name	PVC-XLPVC
样品颜色	黑
Color	black
材料名称	PVC-XLPVC
Material	PVC-XLPVC
样品接收日期	2023.02.09
Sample Received Date	Feb. 9, 2023
样品检测日期	2023.02.09-2023.02.14
Testing Period	Feb. 9, 2023 to Feb. 14, 2023

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 2023.02.14

No. R450146633

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

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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)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017和/或IEC 62321-5:2013测试总铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
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	限值 Limit
	001		
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.	8 mg/kg	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	001		
多溴联苯 Polybrominated Biphenyls (PBBs)			
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 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	限值 Limit
	001		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 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	限值 Limit
	001		
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	001	黑色塑料颗粒 Black plastic grains

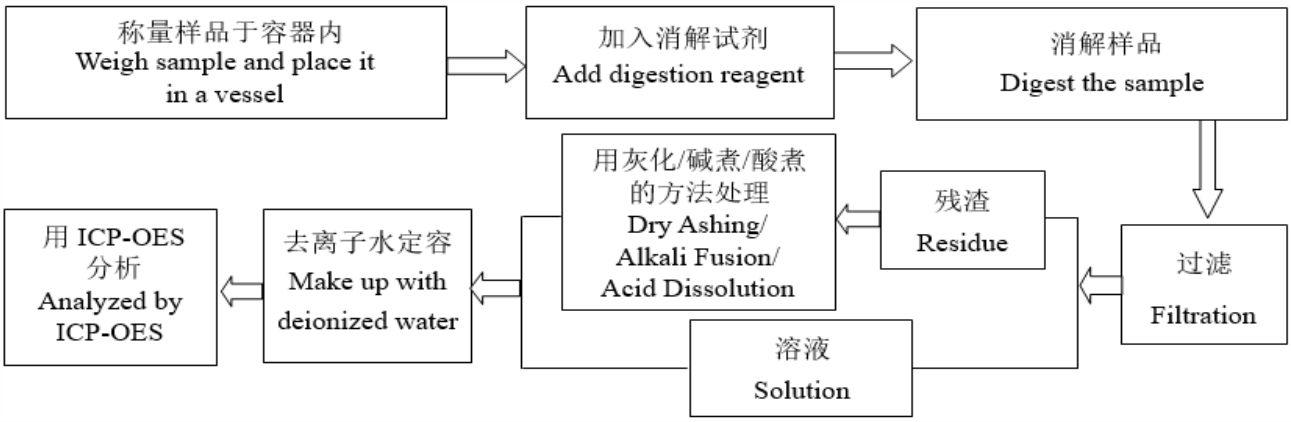
备注: **对于检测铅，镉，汞之样品已消解完全。**
-N.D. = 未检出（小于方法检出限）
-mg/kg = ppm = 百万分之一
-1000 mg/kg = 0.1%

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%

检测流程 Test Process

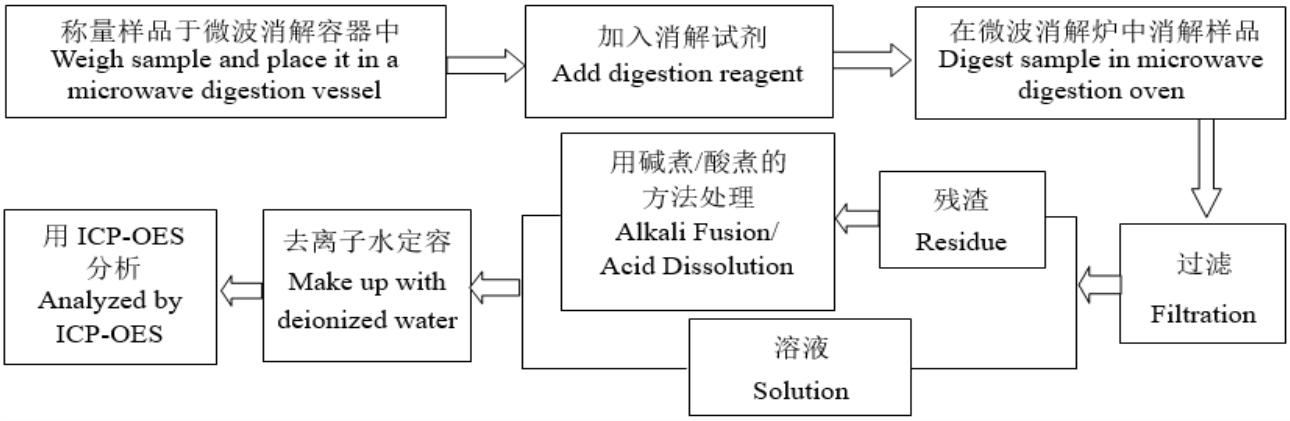
1. 铅(Pb)，镉(Cd)，铬(Cr)

Lead (Pb), Cadmium (Cd), Chromium (Cr)



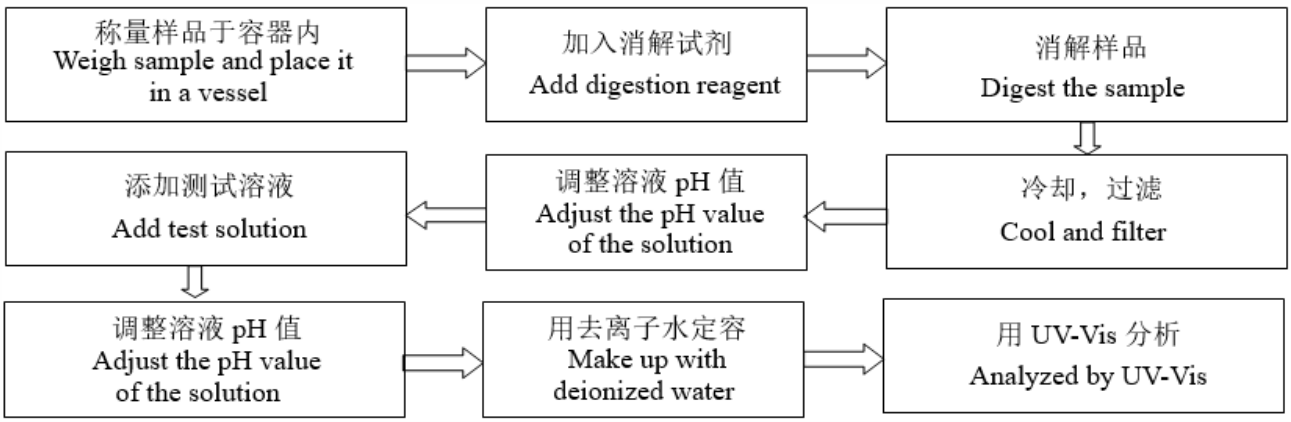
2. 汞(Hg)

Mercury (Hg)



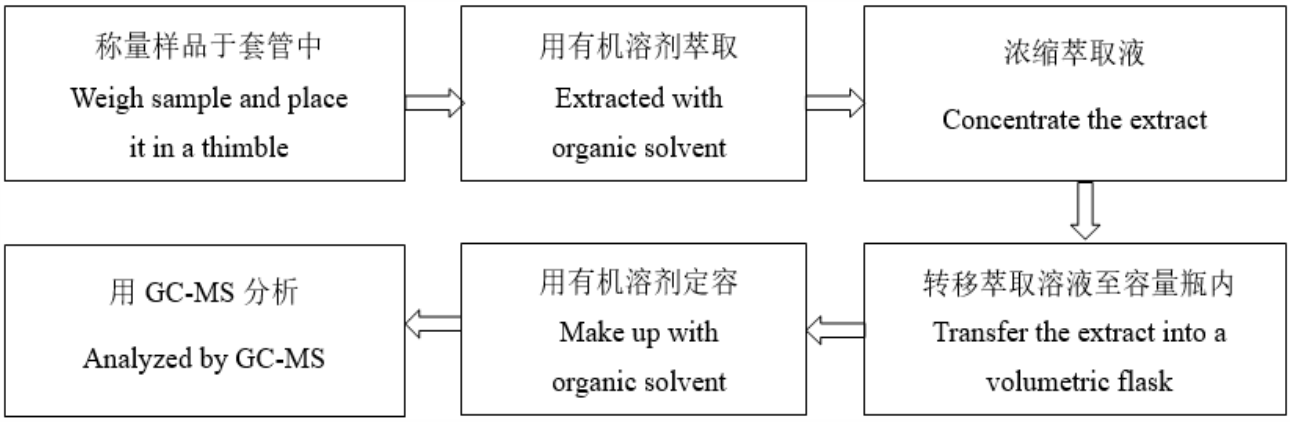
3. 六价铬(Cr(VI))

Hexavalent Chromium (Cr(VI))



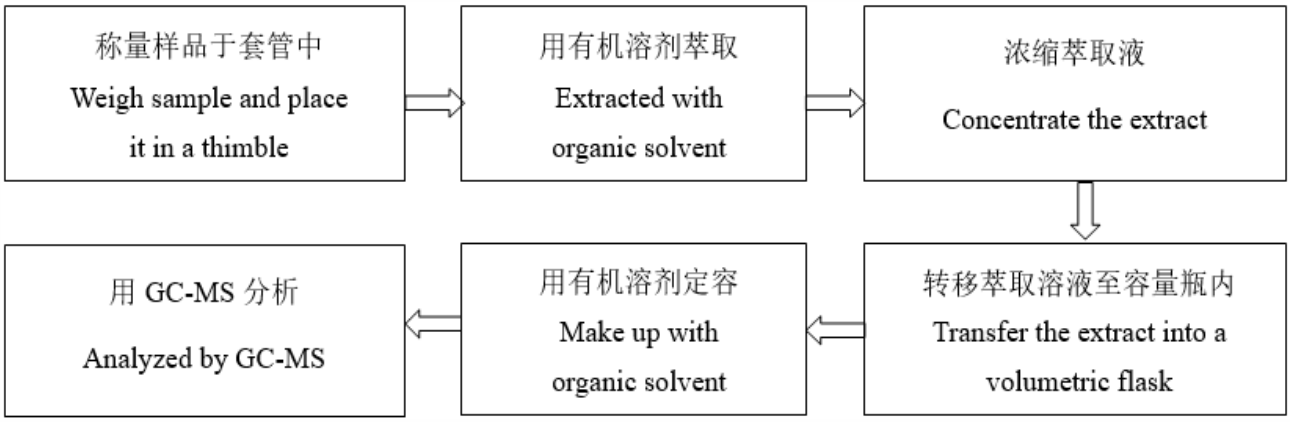
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

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. 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;
5. 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 ***

检测报告
Test Report

报告编号 A2230042129101005E
Report No. A2230042129101005E

报告抬头公司名称 广东银豪塑胶制品有限公司
Company Name shown on Report GUANGDONG RINGDON PLASTIC PRODUCTS CO.,LTD.
地 址 广东省东莞市中堂镇南潢440号
Address NO.440, NANHENG ROAD, ZHONGTANG TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, P.R.CHINA

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	PVC-XLPVC
Sample Name	PVC-XLPVC
样品颜色	红
Color	red
材料名称	PVC-XLPVC
Material	PVC-XLPVC
样品接收日期	2023.02.09
Sample Received Date	Feb. 9, 2023
样品检测日期	2023.02.09-2023.02.14
Testing Period	Feb. 9, 2023 to Feb. 14, 2023

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 2023.02.14

No. R450146633

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

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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)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017和/或IEC 62321-5:2013测试总铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
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	限值 Limit
	005		
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.	8 mg/kg	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	005		
多溴联苯 Polybrominated Biphenyls (PBBs)			
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 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	限值 Limit
	005		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 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 005	方法检出限 MDL	限值 Limit
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	005	红色塑料颗粒 Red plastic grains

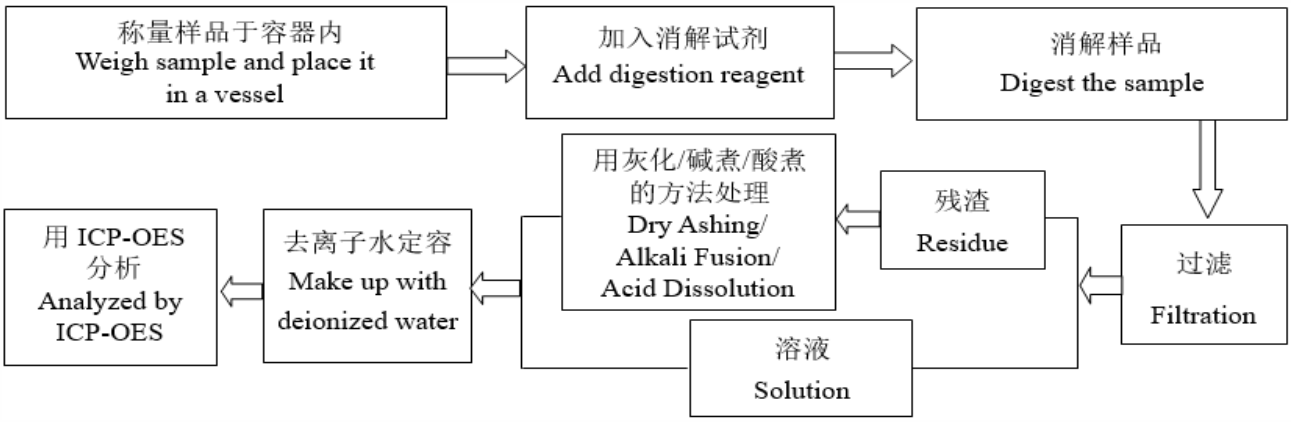
备注: **对于检测铅，镉，汞之样品已消解完全。**
-N.D. = 未检出（小于方法检出限）
-mg/kg = ppm = 百万分之一
-1000 mg/kg = 0.1%

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%

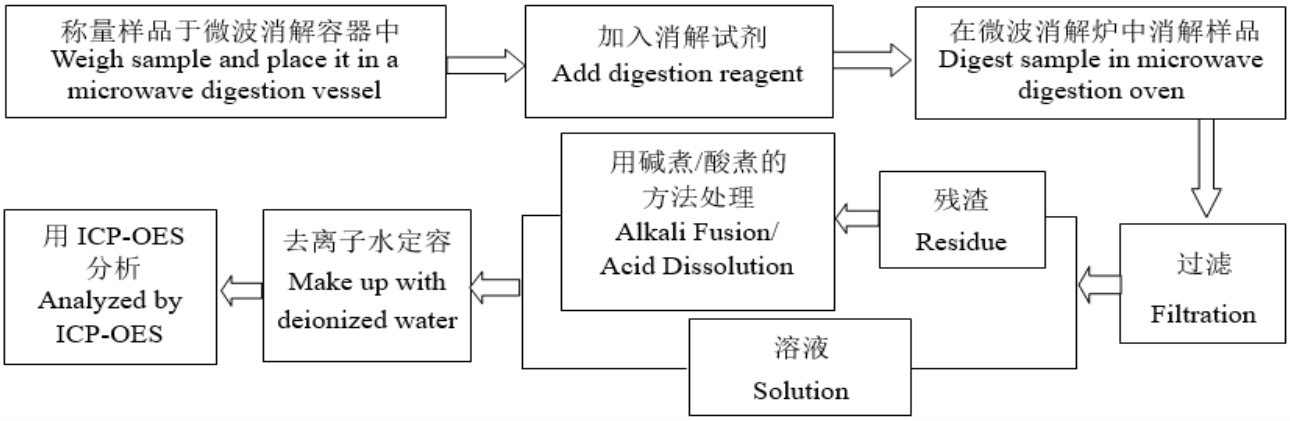
检测报告
Test Report

检测流程 Test Process

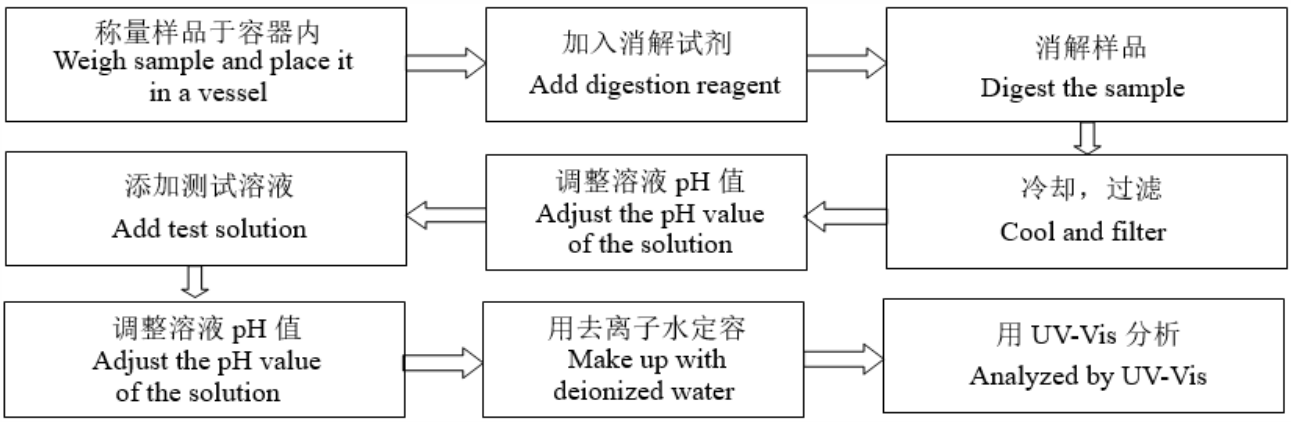
1. 铅(Pb)，镉(Cd)，铬(Cr)
   Lead (Pb), Cadmium (Cd), Chromium (Cr)



2. 汞(Hg)
   Mercury (Hg)

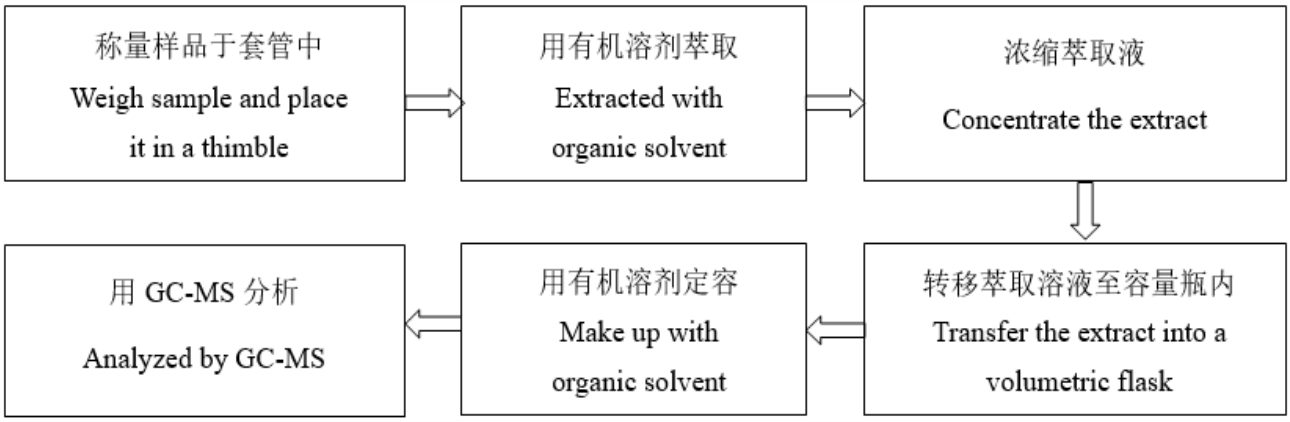


3. 六价铬(Cr(VI))
   Hexavalent Chromium (Cr(VI))



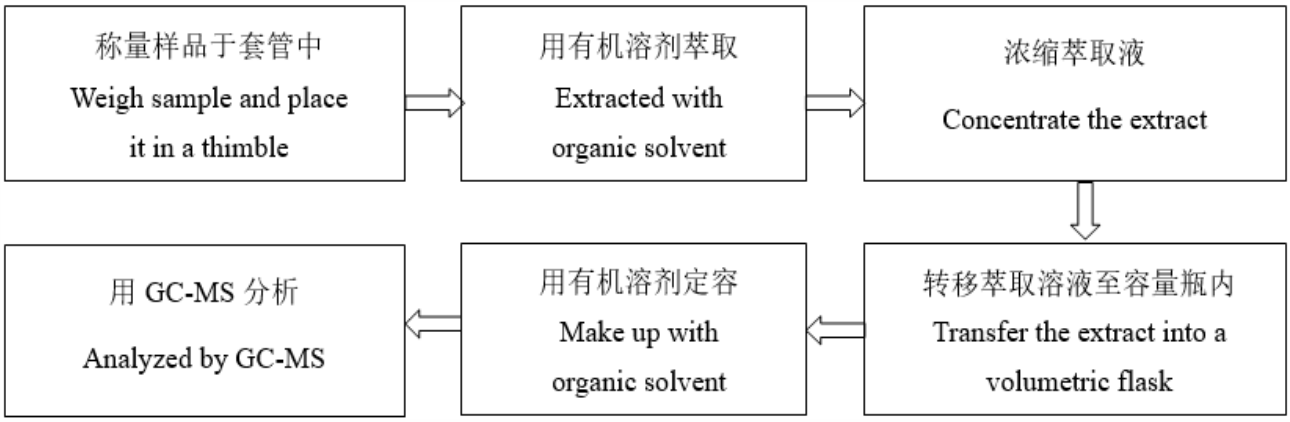
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

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. 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;
5. 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 ***

检测报告
Test Report

报告抬头公司名称 广东银豪塑胶制品有限公司
Company Name shown on Report GUANGDONG RINGDON PLASTIC PRODUCTS CO.,LTD.
地 址 广东省东莞市中堂镇南潢440号
Address NO.440, NANHENG ROAD, ZHONGTANG TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, P.R.CHINA

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	PVC-XLPVC
Sample Name	PVC-XLPVC
样品颜色	绿
Color	green
材料名称	PVC-XLPVC
Material	PVC-XLPVC
样品接收日期	2023.02.09
Sample Received Date	Feb. 9, 2023
样品检测日期	2023.02.09-2023.02.14
Testing Period	Feb. 9, 2023 to Feb. 14, 2023

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 郑晴涛 日 期 2023.02.14
Approved by Date
郑晴涛
技术经理 Technical Manager

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)	IEC 62321-5:2013	ICP-OES
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017和/或IEC 62321-5:2013测试总铬含量 IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
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	限值 Limit
	007		
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.	8 mg/kg	1000 mg/kg

测试项目 Tested Item(s)	结果 Result	方法检出限 MDL	限值 Limit
	007		
多溴联苯 Polybrominated Biphenyls (PBBs)			
一溴联苯 Monobromobiphenyl	N.D.	5 mg/kg	1000 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	限值 Limit
	007		
多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)			
一溴二苯醚 Monobromodiphenyl ether	N.D.	5 mg/kg	1000 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	限值 Limit
	007		
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	007	绿色塑料颗粒 Green plastic grains

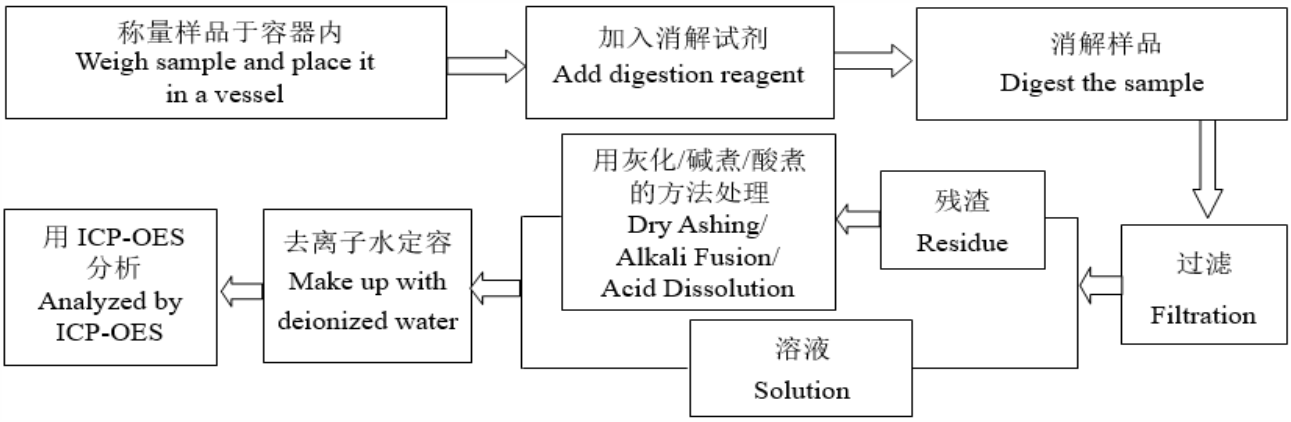
备注: **对于检测铅，镉，汞之样品已消解完全。**
-N.D. = 未检出（小于方法检出限）
-mg/kg = ppm = 百万分之一
-1000 mg/kg = 0.1%

Remark: **The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%

检测流程 Test Process

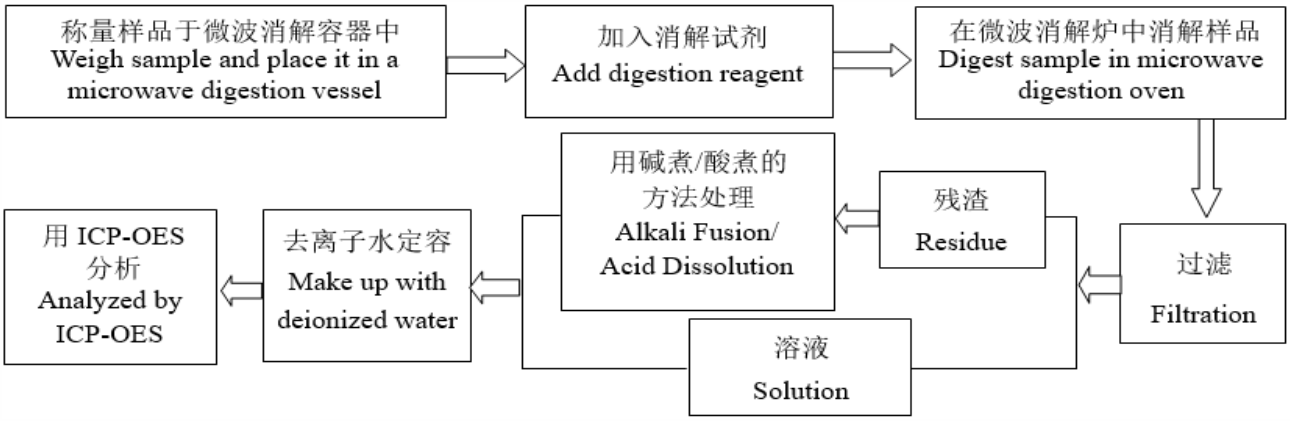
1. 铅(Pb)，镉(Cd)，铬(Cr)

Lead (Pb), Cadmium (Cd), Chromium (Cr)



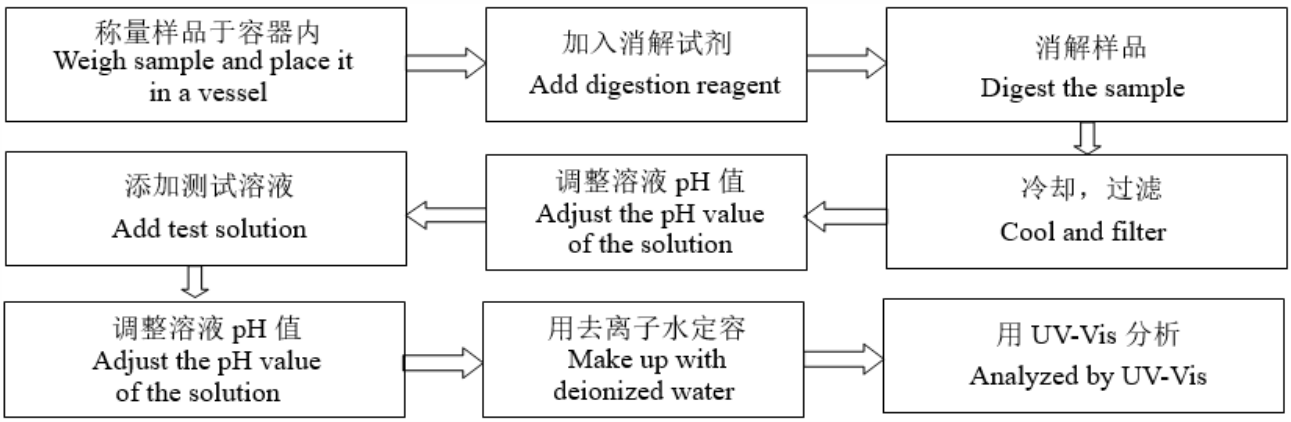
2. 汞(Hg)

Mercury (Hg)



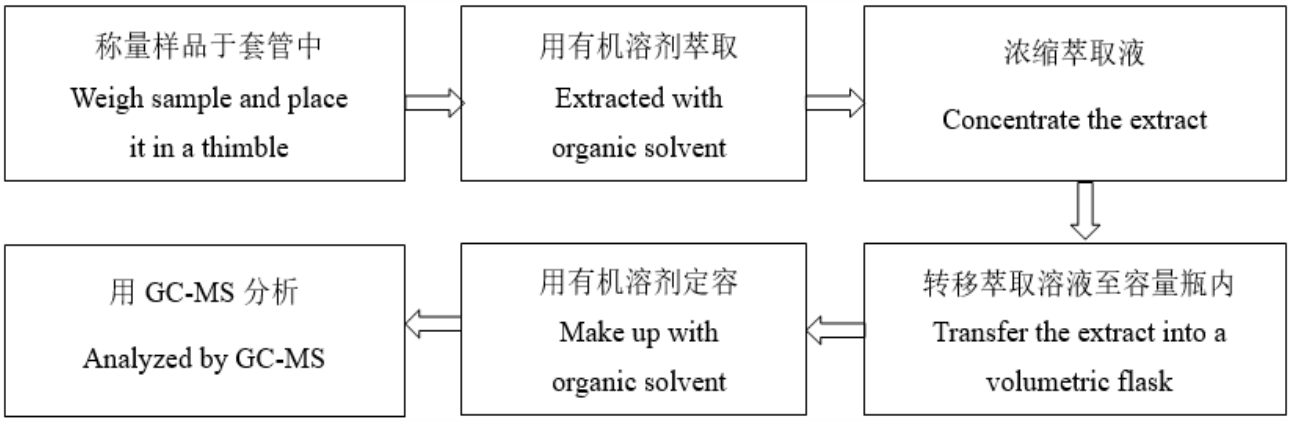
3. 六价铬(Cr(VI))

Hexavalent Chromium (Cr(VI))



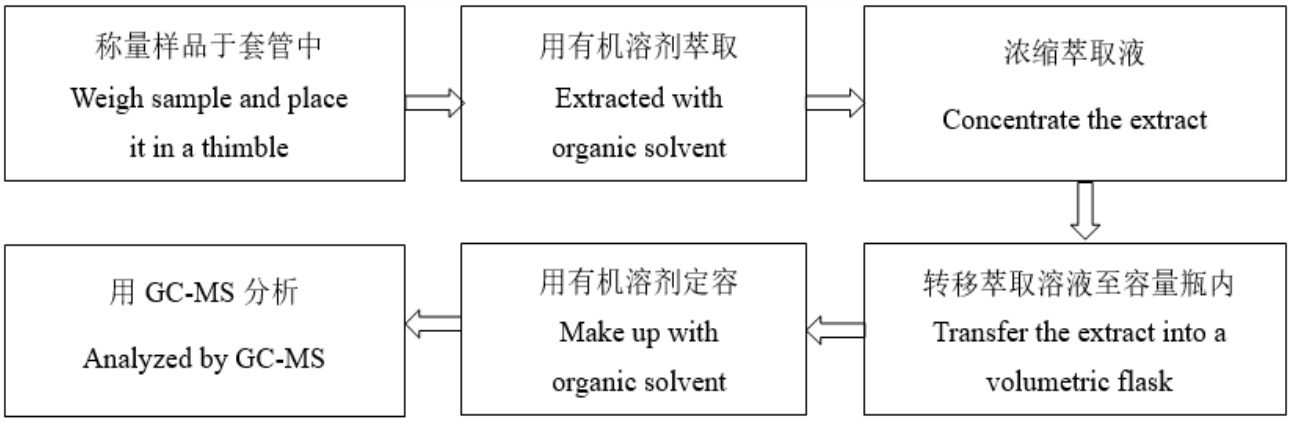
4. 多溴联苯(PBBs)， 多溴二苯醚(PBDEs)

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. 未经CTI书面同意，不得部分复制本报告；
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   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 ***

Test Report

No. CANEC2301222302 Date: 09 Feb 2023

Client Name : DONGGUAN LUCKY FLY CONDUCTOR CO.,LTD

Client Address : QIAO ZI REGION CHANG PING TOWN DONG GUAN CITY GUANG DONG PROVINCE CHINA

Sample Name : TINNED COPPER WIRE

Main Substance : CU,SN

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

SGS Job No. : CP23-002716 - GZ

Date of Sample Received : 03 Feb 2023

Testing Period : 03 Feb 2023 - 09 Feb 2023

Test Requested : Selected 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).

Result Summary :

Test Requested	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	PASS
Elementary Analysis	See Results
AfPS GS 2019:01 PAK - Polycyclic Aromatic Hydrocarbons (PAHs)	See Results
Perfluorooctanoic acid (PFOA) and its salts & Perfluorooctane sulfonates (PFOS) and its derivatives	See Results

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

scan to see the report

10E9C309

Coral Qiu

Coral Qiu
Approved Signatory

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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

Test Result(s) :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN23-012223.002	Silvery plated metal wire

Remarks :

(1) 1 mg/kg = 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 (PBBs), Polybrominated diphenyl ethers (PBDEs), 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+A1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015 , IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES , UV-Vis and GC-MS .

Test Item(s)	Limit	Unit	MDL	*002*
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))▾	-	μg/cm²	0.10	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND

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Test Item(s)	Limit	Unit	MDL	*002*
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND
Bis (2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND

Notes :

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
(2) IEC 62321 series is equivalent to EN 62321 series
(3) ▾= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 μg/cm². The sample coating is considered to contain CrVI
b. The sample is negative for CrVI if CrVI is ND (concentration less than 0.10 μg/cm²). The coating is considered a non-CrVI based coating
c. The result between 0.10 μg/cm² and 0.13 μg/cm² 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.

Elementary Analysis

Test Method : SGS In-house method (GZTC CHEM-TOP-009-01, with reference to EPA 3050B:1996), analysis was performed by ICP-OES.

Test Item(s)	Unit	MDL	*002*
Beryllium (Be)	mg/kg	5	ND

AfPS GS 2019:01 PAK - Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method : With reference to AfPS GS 2019:01 PAK, analysis was performed by GC-MS.

Test Item(s)	CAS NO.	Unit	MDL	002
Naphthalene(NAP)	91-20-3	mg/kg	0.1	ND
Phenanthrene(PHE)	85-01-8	mg/kg	0.1	ND

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Test Item(s)	CAS NO.	Unit	MDL	002
Anthracene(ANT)	120-12-7	mg/kg	0.1	ND
Fluoranthene(FLT)	206-44-0	mg/kg	0.1	ND
Pyrene(PYR)	129-00-0	mg/kg	0.1	ND
Benzo(a)anthracene(BaA)	56-55-3	mg/kg	0.1	ND
Chrysene(CHR)	218-01-9	mg/kg	0.1	ND
Benzo(b)fluoranthene(BbF)	205-99-2	mg/kg	0.1	ND
Benzo(j)fluoranthene(BjF)	205-82-3	mg/kg	0.1	ND
Benzo(k)fluoranthene(BkF)	207-08-9	mg/kg	0.1	ND
Benzo(a)pyrene(BaP)	50-32-8	mg/kg	0.1	ND
Benzo(e)pyrene(BeP)	192-97-2	mg/kg	0.1	ND
Indeno(1,2,3-c,d)pyrene(IPY)	193-39-5	mg/kg	0.1	ND
Dibenzo(a,h)anthracene(DBA)	53-70-3	mg/kg	0.1	ND
Benzo(g,h,i)perylene(BPE)	191-24-2	mg/kg	0.1	ND
Sum of 4 PAHs (Phenanthrene, Pyrene, Anthracene, Fluoranthene)	-	mg/kg	-	ND
Sum of 15 PAHs	-	mg/kg	-	ND

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AfPS (German commission for Product Safety) : PAHs requirements

Parameter (mg/kg)	Category 1	Category 2		Category 3	
	Materials intended to be placed in the mouth, or materials coming into long-term contact with skin (more than 30s) during the intended use -in toys according to Directive 2009/48/EC or -for the use by children[a,b] up to 3 years of age.	Materials not covered by category 1, coming into long-term contact (more than 30s) or short-term repetitive contact[c] with skin during the intended or foreseeable use[d].		Materials covered neither by category 1 nor by category 2, coming into short-term contact (up to 30s) with skin during the intended or foreseeable use.	
		a. use by children	b. other consumer products	a. use by children	b. other consumer products
Benzo(a)pyrene (BaP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(e)pyrene (BeP)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(a)anthracene (BaA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(b)fluoranthene (BbF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(j)fluoranthene (BjF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(k)fluoranthene (BkF)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene (CHR)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo(a,h)anthracene (DBA)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo(g,h,i)perylene (BPE)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno(1,2,3-cd)pyrene (IPY)	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Phenanthrene (PHE), pyrene (PYR), anthracene (ANT), fluoranthene (FLT)	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Naphthalene (NAP)	< 1	< 2		< 10	
Sum of 15 PAHs	<1	< 5	< 10	< 20	< 50

Note:
[a] A “Child” is legally defined as a person before reaching the age of 14 years.
[b] Use by children includes both active and passive contact by children.
[c] Definition “short-term repetitive contact” taken from REACH Annex XVII entry 50 amendment (Regulation (EC) No. 1272/2013)
[d] According to the definition of the German Product Safety Act (ProdSG) (chapter 1 Article 2 No. 28) “foreseeable use” shall mean the use of a product in a manner that the person placing it on the market, has not intended, but which could be reasonably foreseeable.

Remark: The German committee on Product Safety (AfPS) published a new PAHs document (AfPS GS 2019:01 PAK) on April 10, 2020, which will be binding for the issue of GS mark certificate from July 1, 2020.

Perfluorooctanoic acid (PFOA) and its salts & Perfluorooctane sulfonates (PFOS) and its derivatives

Test Method : With reference to CEN/TS15968:2010, analysis was performed by LC-MS or LC-MS/MS.

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Test Item(s)	CAS NO.	Unit	MDL	002
Perfluorooctane sulfonates (PFOS) and its salts*	-	mg/kg	0.010	ND
Perfluorooctane Sulfonamide (PFOSA)	754-91-6	mg/kg	0.010	ND
N-methylperfluoro-1-octanesulfonamide(N-MeFOSA)	31506-32-8	mg/kg	0.010	ND
N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2	mg/kg	0.010	ND
2-(N-methylperfluoro-1-octanesulfonamido) -ethanol(N-MeFOSE)	24448-09-7	mg/kg	0.010	ND
2-(N-ethylperfluoro-1-octanesulfonamido) -ethanol(N-EtFOSE)	1691-99-2	mg/kg	0.010	ND
Perfluorooctane sulfonates (PFOS) and its derivatives	-	mg/kg	-	ND

Notes :

(1) PFOA and its salts* including PFOA (CAS No. 335-67-1), APFO (CAS No. 3825-26-1), PFOA-Na (CAS No. 335-95-5), PFOA-K (CAS No. 2395-00-8), PFOA-Ag (CAS No. 335-93-3) and PFOA-F (CAS No. 335-66-0). The result of PFOA is used to represent PFOA and its salts.

(2) PFOS and its salts* including PFOS (CAS No. 1763-23-1), POSF(CAS No. 307-35-7), PFOS-K (CAS No. 2795-39-3), PFOS-NH_4 (CAS No. 29081-56-9), PFOS-$N(C_{10}H_{21})_2(CH_3)_2$ (CAS No. 251099-16-8), PFOS-$NH_2(C_2H_4OH)_2$ (CAS No. 70225-14-8), PFOS-Li (CAS No. 29457-72-5), PFOS-$N(C_2H_5)_4$ (CAS No. 56773-42-3) and PFOS-Na (CAS No. 4021-47-0). The result of PFOS is used to represent PFOS and its salts.

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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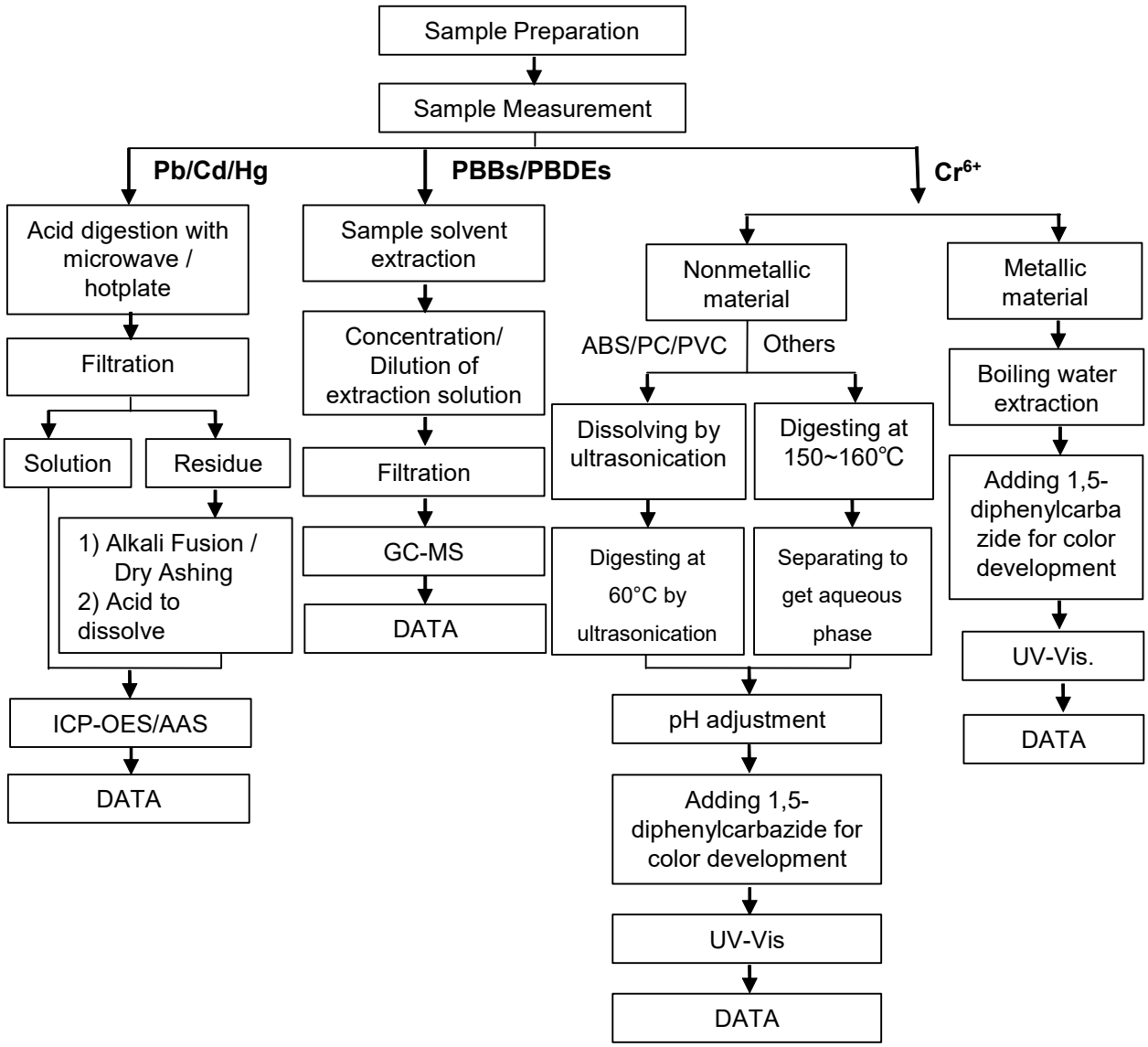
Pb/Cd/Hg/Cr^{6+}/PBBs/PBDEs Testing Flow Chart

1) These samples were dissolved totally by pre -conditioning method according to below flow chart. (Cr^{6+} and PBBs/PBDEs test method excluded).



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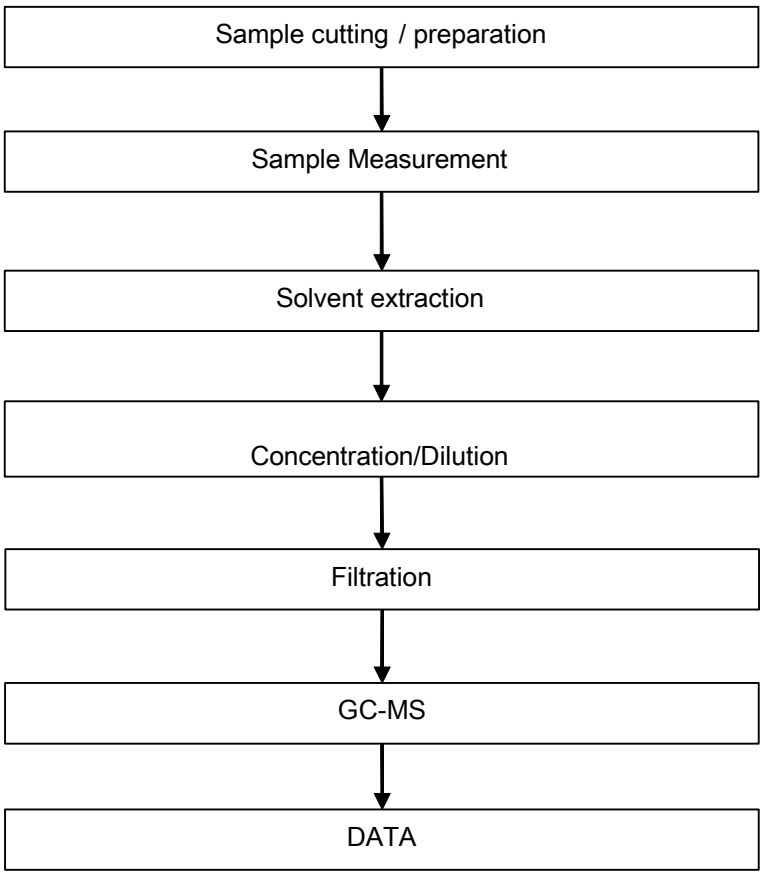
Phthalates Testing Flow Chart



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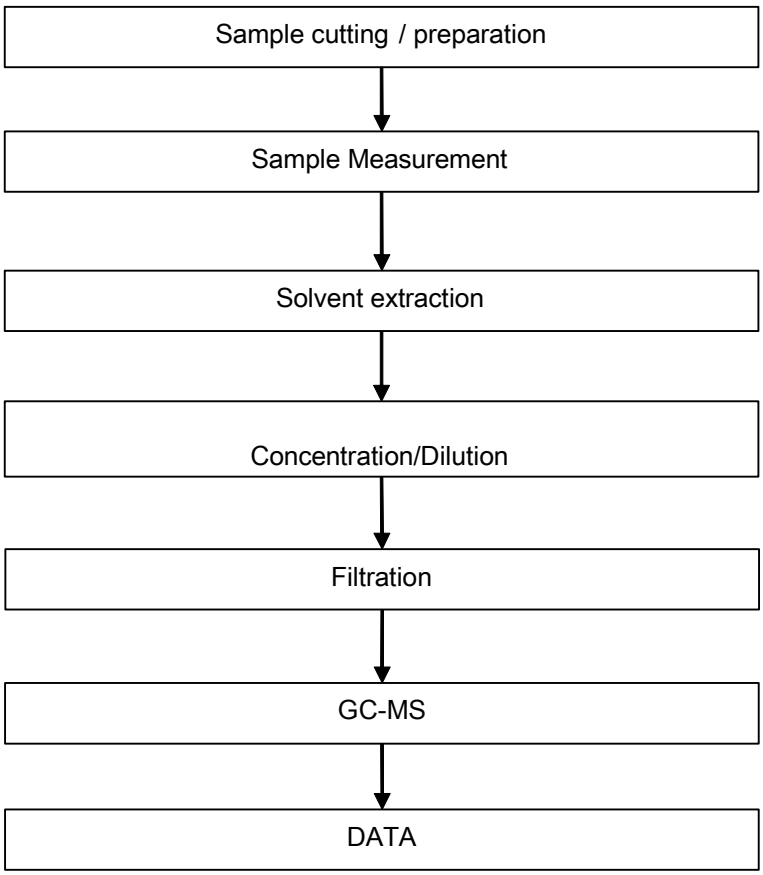
PAHs Testing Flow Chart



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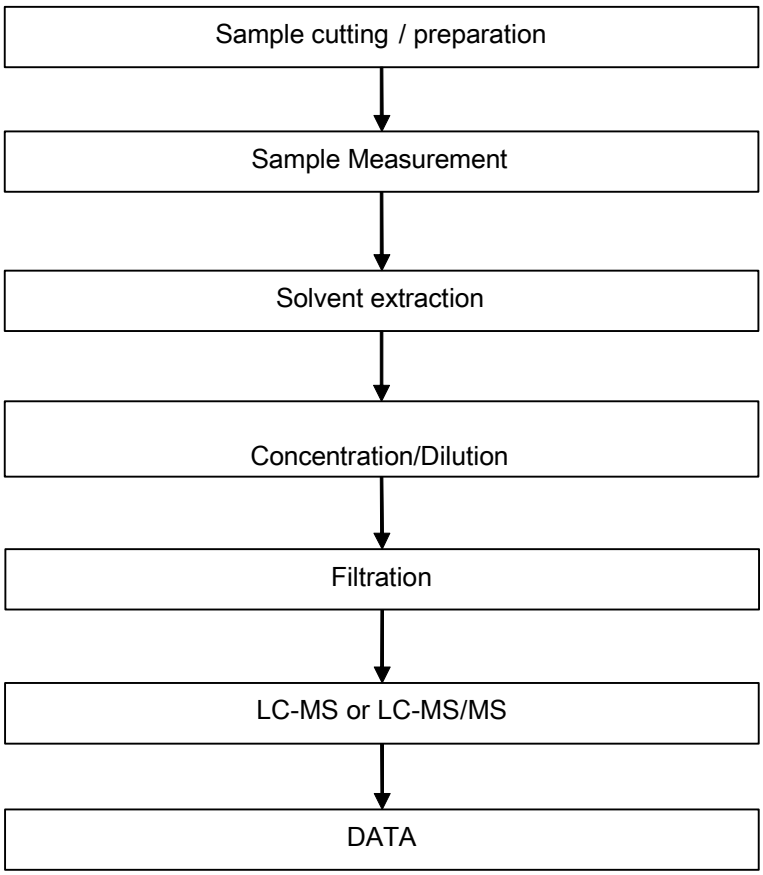
Testing Flow Chart



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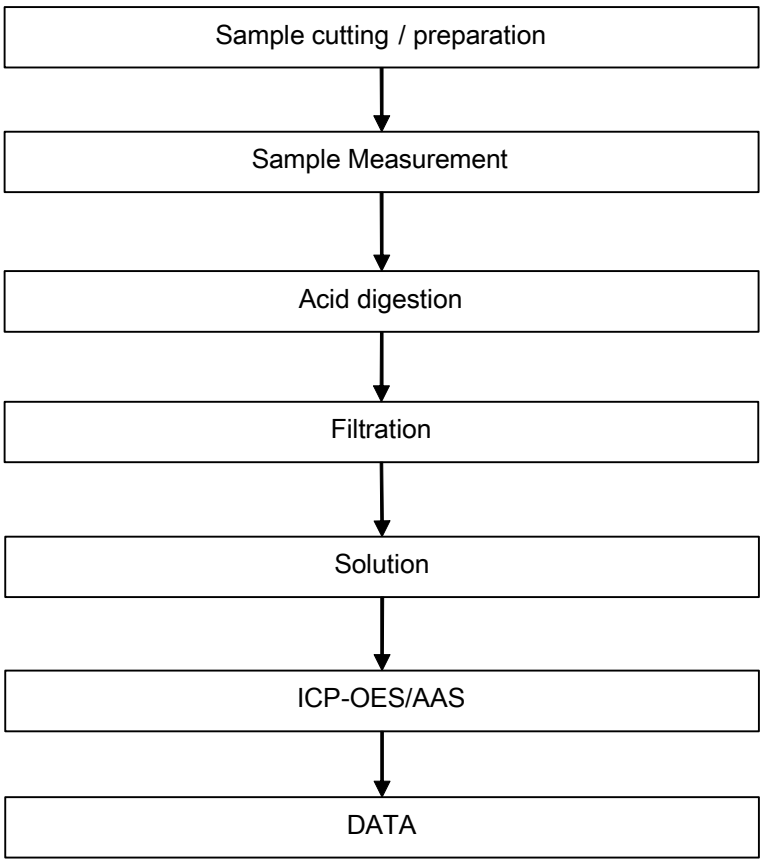
Elementary Testing Flow Chart



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Test Report

No.: CANEC23001447709_1 **Date:** Apr 18, 2023

Client Name: SINWA LASER TECHNOLOGY CO.,LTD

Client Address: 50.WU KONG 5 TH RD,.WU KU INDUSTRIAL PARK .TAIPEI TAIWAN CHINA

Sample Name: INK WHITE FOR WIRE &CABLE PRINTING

Model No.: I-PVC-01

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

THIS REPORT IS TO SUPERSEDE TEST REPORT NO.CANEC23001447709, DATE: Apr 11, 2023.

SGS Job No.: CP23-015924

Sample Receiving Date: Apr 04, 2023

Testing Period: Apr 04, 2023 ~ Apr 11, 2023

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 (PBBs), Polybrominated diphenyl ethers (PBDEs), 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

Zm Guan
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	A2	CAN23-0014477-0001.C002	White liquid

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 (PBBs), Polybrominated diphenyl ethers (PBDEs), 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, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A2
Cadmium(Cd)	100	mg/kg	2	ND
Lead(Pb)	1000	mg/kg	2	ND
Mercury(Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
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
Dibutyl Phthalate(DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate(BBP)	1000	mg/kg	50	ND

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检验检测专用章 Inspection & Testing Services

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Test Item(s)	Limit	Unit(s)	MDL	A2
Bis-(2-ethylhexyl) Phthalate(DEHP)	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.

Remark: The result(s) shown is/are of the total weight of dried sample.
This report updates Test Part Description.
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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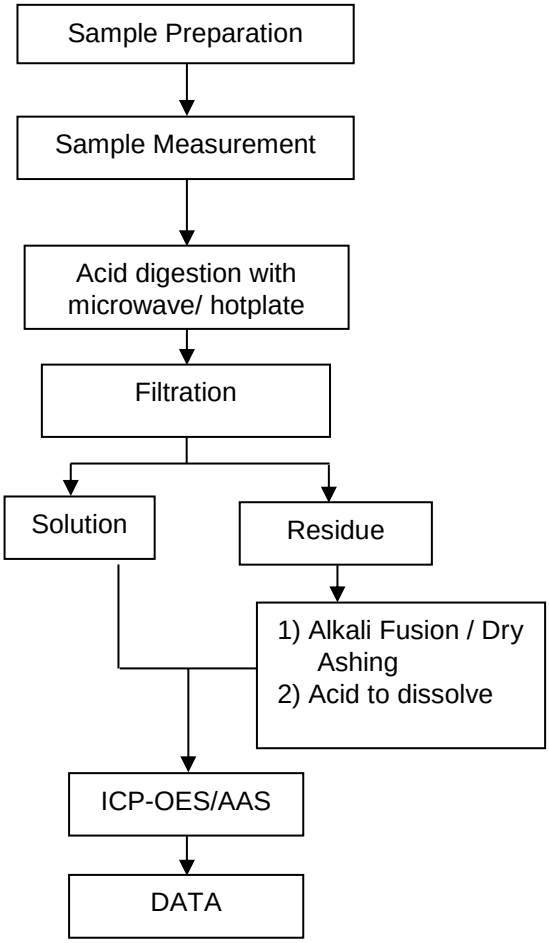
Elements Testing Flow Chart

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



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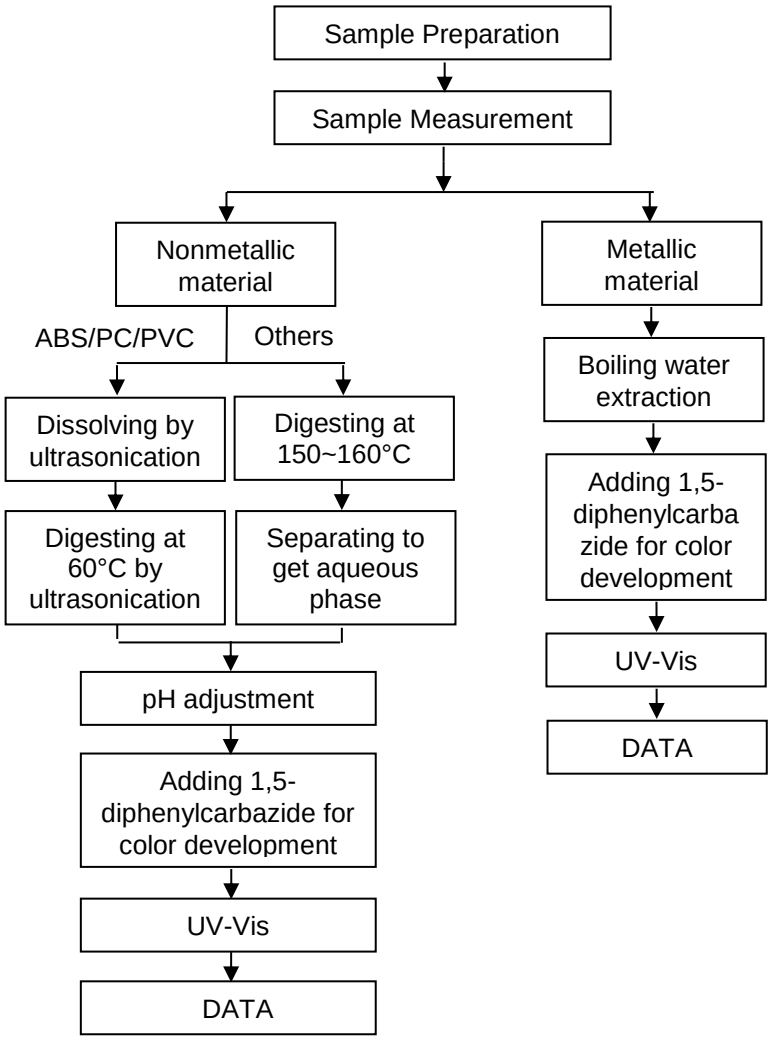
Hexavalent Chromium (Cr(VI)) Testing Flow Chart



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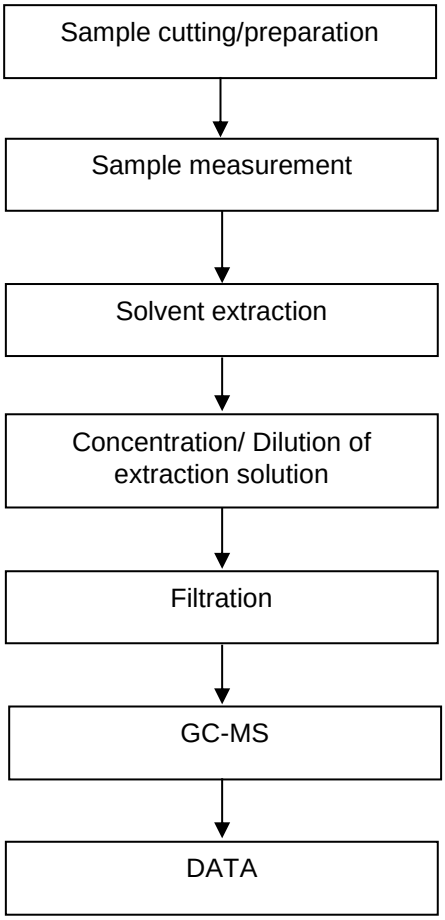
PBBs/PBDEs Testing Flow Chart



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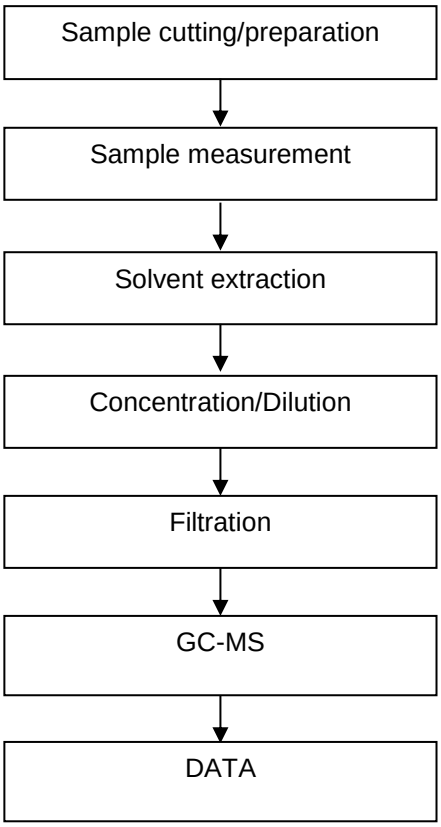
Phthalates Testing Flow Chart



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Sample Photo:



CAN23-0014477-0001.C002

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