零組件承認書 Component Approval Sheet

申請人	lynn[邱雅伶]	申請日期	2019/08/07
部門	前瞻技術技管部	部門主管	su[鄧素晴]

☐ 新承認 ☑ 承認修訂 ☐ 新臨、試承認 ☐ 臨、試承認修訂 (必勾選)

供應商 Supplier		製造商 Manufacturer	亞驪 (必填)
料號 Part Number	3452000000170P (必填)	原廠料號 Model No.	RFA-25-C2M2-U-M70 (必填)
產品概述 Description	品名: CBL,WIFI ANTENNA,ARISTOTLE,RFA-25-C2M2-U-M70 (必填)		
	規格: 111.7mm,SMA PLUG,BLACK,FOR IOT-800N (必填)		
測試機種	IOT-800N (必填)		

樣品數量: 1 PCS (必填)	樣品保管單位: ☐技管部 ☑品管 ☐無樣品保管 (必勾選)	樣品更新: ☐有 ☑無 (必勾選)

供參考照片	☑有 ☐候補 ☐其它 (必勾選)
貼紙BTW檔	☐有歸檔 ☐有更新 ☑非貼紙類不需要 (必勾選)

RD: PM: sonia[許慧芩] Sales:

備註 Remark	技管中心發行章/日期
	磐儀科技 2019.08.08 技管部

狀況	說明	姓名	日期時間	意見
申請	申請者	前瞻技術技管部 lynn[邱雅伶]	2019/8/7 下午 01:48:09	
處理	上一級主管	前瞻技術技管部 su[鄧素晴]	2019/8/7 下午 02:23:17	送件.
處理	技管中心-零組件承認書-01	前瞻技術技管部 lynn[邱雅伶]	2019/8/8 上午 09:57:50	送件.

承認書更新記錄

承認/修訂日期	承認/修訂內容摘要	登錄者
2019/07/08	新承認發行。	邱雅伶
2019/08/07	RD-張世揚於承認書加入效能數據(承認書P6~P.8)，主要為VSWR的值，並告知PM-許慧苓也經過同意，更新承認書。	邱雅伶

3452000000170P 承認樣品照片

圖片資料僅供參考，請依據廠商、**RD** 提供之工程圖、承認樣品及相關資訊為準

亞 驪 企 業 股 份 有 限 公 司
ARISTOTLE ENTERPRISES

承 認 申 請 書

ROHS COMPLIANCE

客戶名稱: Customer	磐儀科技股份有限公司
廠商料號: Part No.	RFA-25-C2M2-U-M70
品名: Description	Dual Band
圖號: Drawing No.	RFA-25-C2M2-U-M70.DWG
客戶料號: Drawing No.	3452000000170P

出廠簽章:

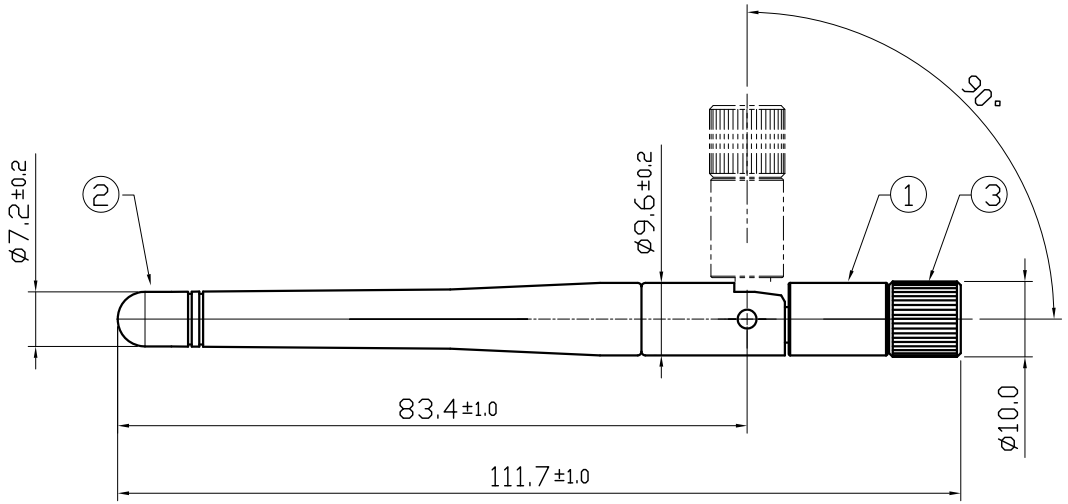
檢　　查 TEST BY	核　　對 CHECK BY	承　　認 APPROVE BY
周沂珮	黃秋芳	廖煥文

承認簽章:

檢　　查 TEST BY	核　　對 CHECK BY	承　　認 APPROVE BY

地址:新北市中和區莒光路 63 號 8 樓
電話:02-2225-8209
傳真:02-2225-7523

NO.	NAME	FINISH	MAT'L	Q'TY	MEMO
1.	Hinge	BLACK	ABS	1	
2.	Tube	BLACK	ABS	1	
3.	Connector	BLACK	BRASS	1	RP SMA PLUG



ARISTOTLE ENTERPRISES INC. 亞驪企業股份有限公司

REV	ECN	NAME	DATE
4.			
3.			
2.			
1.			

PROJECTION	UNITS	mm	TITLE: RFA-25-C2M2-U-M70
	SCALE	1/1	SHEET: 1/1
	PAPER	A4	
APPD.			DWG NO. RFA-25-C2M2-U-M70
CHKD			REV. A
DESIGN			
DRAW	J.W.Lee	2015/09/23	

ARISTOTLE ENTERPRISES INC.

Specifications

RFA-25-C2M2-U-M70

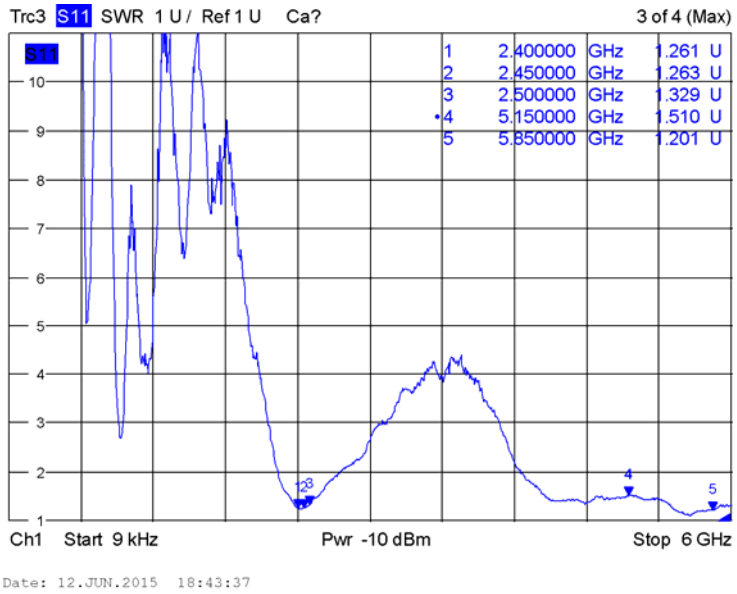
Specifications

Frequency range	2400 MHz – 2500 MHz	5150 MHz -5875 MHz
Peak gain	2.9 dBi	2.34 dBi
VSWR	2.0 : 1 Max.	2.0 : 1 Max.
Polarization	Linear, vertical	Linear, vertical
Power handling	2 W (cw)	2 W (cw)
Impedance	50 Ω	50 Ω
Connector	RP SMA PLUG	

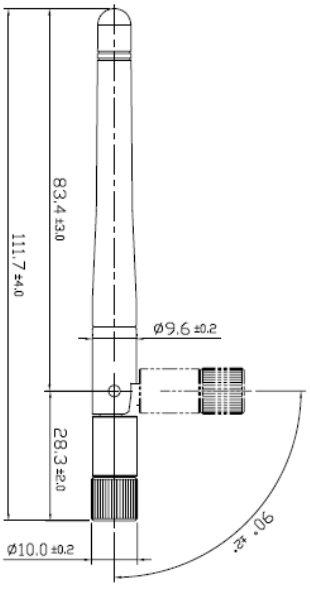
Environmental & Mechanical Characteristics

Temperature	-10℃ to +55℃
Humidity	95% @ 25℃
Radome color	Black

VSWR



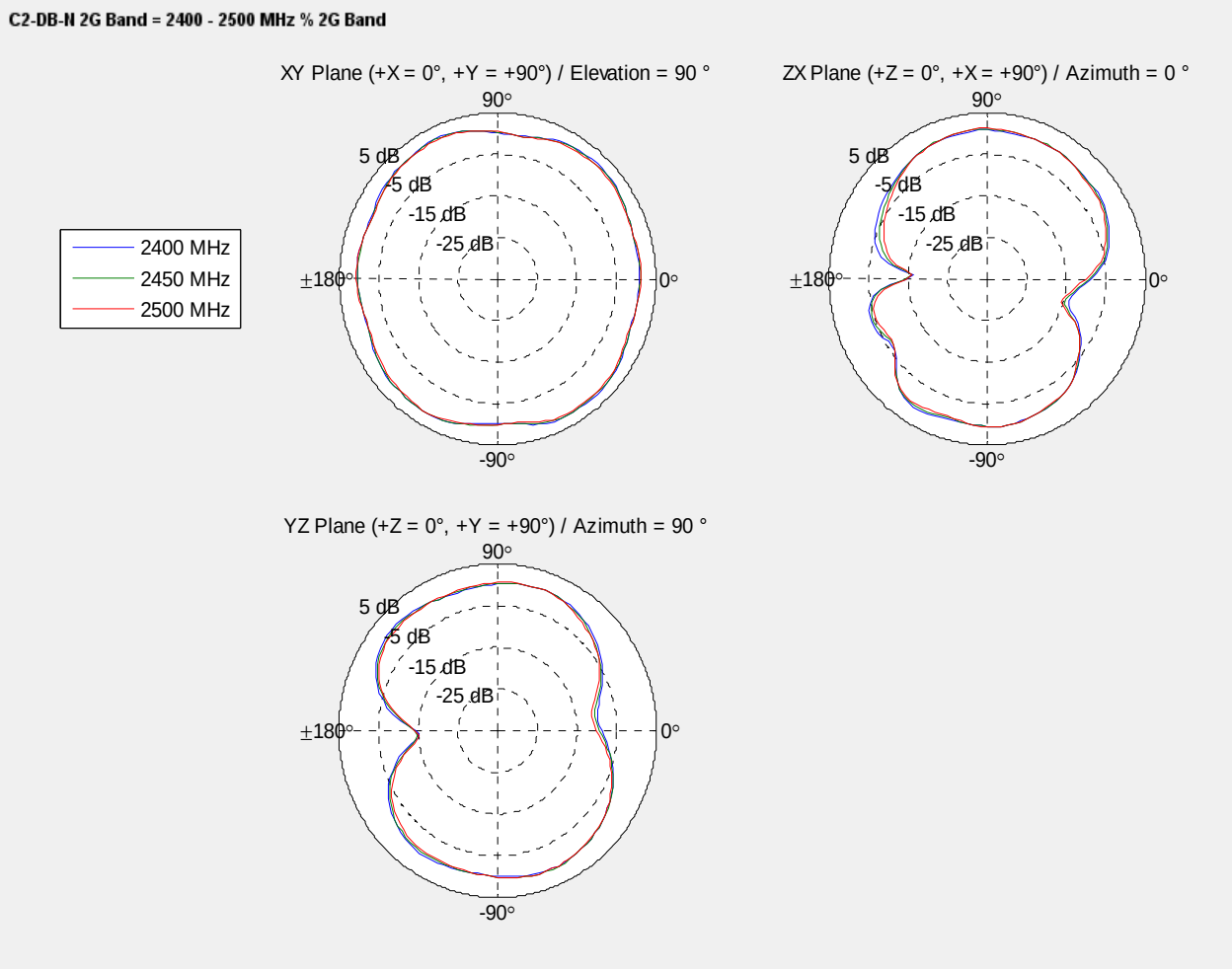
Date: 12.JUN.2015 18:43:37



ARISTOTLE

8F, No.63, Juguang Rd, Zhonghe Dist, New Taipei City 235, Taiwan, R.O.C.
Tel : +886-2-2225-8209 Fax: +886-2-2225-7523 www.aristotle.com.tw

Radiation Pattern



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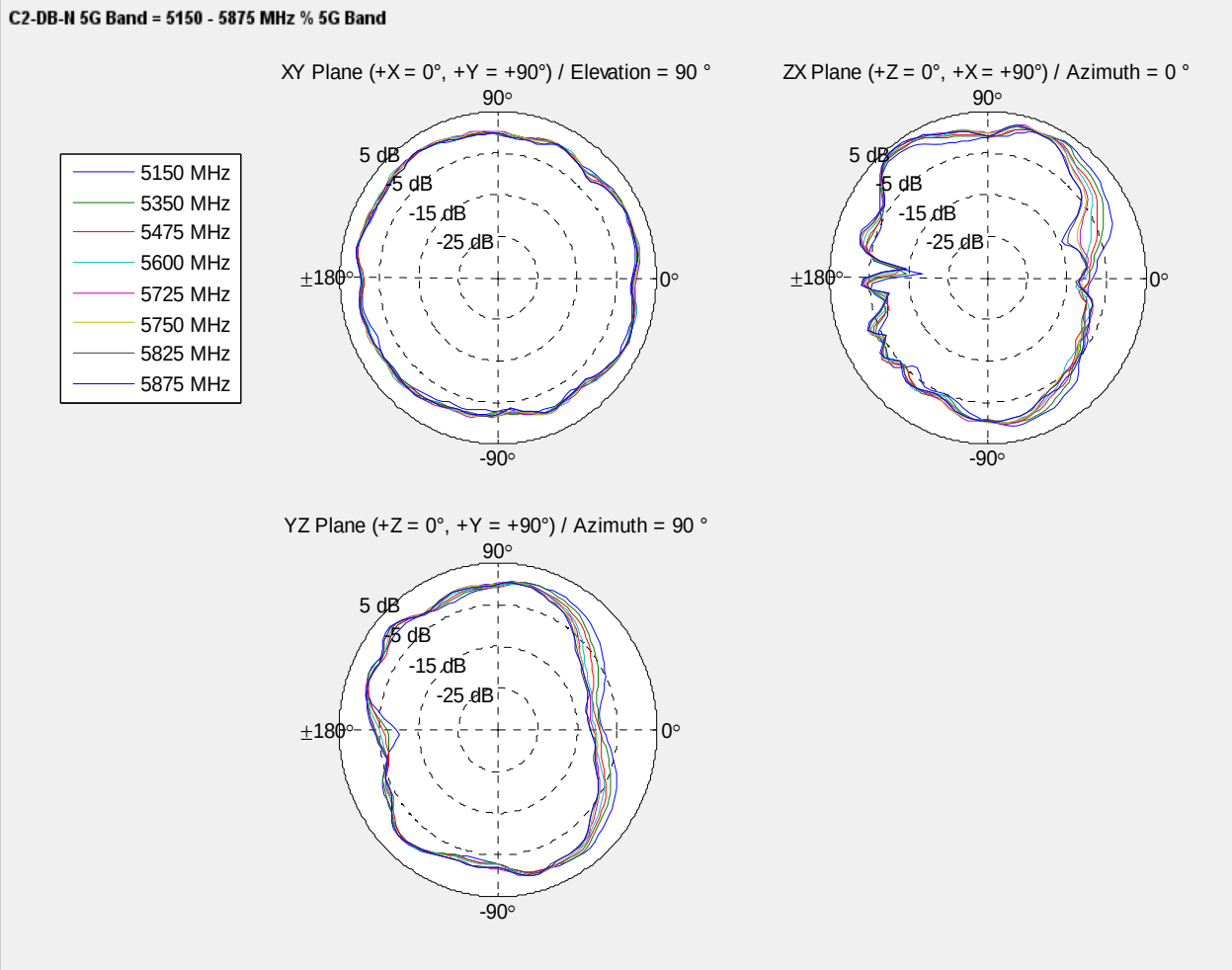
Radiation Pattern



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晟富金屬工業股份有限公司

CHENG FU METAL IND. CO., LTD.

新 北 市 泰 山 區 楓 江 路 4 6 巷 1 0 2 號

No. 102, Lane 46, Fongjiang Rd., Taishan Dist., New Taipei City 24343, TAIWAN

TEL: (02) 2296-6999 ; 2296-5999 FAX : (02)2900-3899

http://www.cf-metal.com E-Mail: chengfu.metal@msa.hinet.net

材質證明書 Certificate Of Analysis

客戶名稱 (Title of customer)			出貨日期 (Date of delivery)	
國際標準 International standard	材質名稱 (Spec.)	證明書號碼 (Certificate NO)	試材規格 (Size)	
JIS	**C3604 BD**		**R 7.0~7.5 m/m**	

化 學 分 析 (Chemical Analysis)

使用儀器 instrument	X 光 電 腦 分 析 儀 (VACUUM X RAY SPECTROGRAPH)								
元素名稱 Element	銅 (Cu)	鉛 (Pb)	鋅 (Zn)	鐵 (Fe)	鎘 (Cd)	矽 (Si)	鋁 (Al)	磷 (P)	鐵+錫 (Fe) +(Sn)
標準規範 % specification	57.0~61.0	1.8~3.7	REM	≦0.50	0.0075↓	—	—	—	≦1.0
實際含量 % Actual composition	58.4	3.3	REM	0.38	0.004	—	—	—	0.72

外觀及物理性質(Exteriority Check And Physical Properties)

外觀(Exteriority)	外觀檢驗(Exteriority Appear)	OK	直度檢驗(Camber)	OK

以上材質樣本經測試後核對無誤,符合標準規範.

The above material sample has been tested and check correct to comply with the specification.

原料成份表

一、物品名稱	低密度聚乙烯 (LDPE)
物品編號：	**NA207-66;NA112-27;NA205-15;NA208;**
	NA248;NA248A
製造商或供應商名稱：	台灣聚合化學品股份有限公司
地址及電話 / 傳真：	台北市內湖區基湖路37號12樓
	886-2-87516888 / 886-2-26599599
二、成分辨識資料	
中英文名稱：	低密度聚乙烯 (LDPE)
	LOW DENSITY POLYETHYLENE RESINS
化學文摘社登記號碼(CAS No.)：	09002-88-4
三、物質成分	成分百分比
乙烯 **(ETHYLENE)**：	99.70%
添加劑 **(ADDITIVE)**：	0.30%
製表單位	名稱： 台灣聚合化學品股份有限公司
	地址： 台北市內湖區基湖路37號12樓
製表日期	2007年11月27日

REPORT OF MATERIAL TEST
材料測試報告

)MINCHALI

DATE: OCT.13,2011

tomer 顧客名稱： 國慶精密股份有限公司
modity 商品名稱： C5210R PHOSPHOR BRONZE FOR SPRING (H)
lied Standard 引用標準： CNS 9503 Phosphor Bronze Sheets, Plates and Strips

ISO 9001
ISO/TS 16949
IECQ QC080000
ISO 14001
OHSAS 18001 & TOSHMS

est Item 試項目		Standard 標準值	Test Value 1 測試值一	Test Value 2 測試值二	Test Value 3 測試值三	Test Value 4 測試值四
ze of Product)	產品規格					
ufacture No.	銅捲編號		08M033A			
ckness (mm)	產品厚度		0.120			
th (mm)	產品寬度		621.000			
gth (mm)	產品長度					
emical Analysis Test)	化性測試					
)	磷	0.030 - 0.350	0.150			
%)	錫	7.000 - 9.000	8.022			
Sn+P(%)	銅錫磷	min. 99.700	99.943			
chanical & Physical Test)	物性測試					
ckness Test (mm)	厚度測試	-0.010 +0.005	0.122			
th Test (mm)	寬度測試	-0.10 +0.00	GOOD			
sile Strength (kgf/mm2)	抗拉強度	58.00 - 65.00	63.40			
ngation (%)	伸長率	25.00 - 999.00	28.10			
dness Test (Hv)	硬度	185.0 - 200.0	197.0 - 198.0			
in Size (mm)	結晶粒度	-	0.010			
ctric Conductivity (%)	導電率	-	11.80			
her Information)	其他資訊					
ivery No.	出貨單號		0A0279			

2843

名佳利金屬工業股份有限公司 品保室 100. 10. 13 合格

QA Supervisor: 周建偉

A780601 0A0437

MINCHALI METAL INDUSTRY CO.,LTD.
名佳利金屬工業股份有限公司
11,Pei Yuan Road, Chung Li City, Taiwan, R.O.C.
Tel : (03)4526141-5 (03)4526017-9
Fax : (03)4529112 (03)4629625

REPORT OF MATERIAL TEST
材料測試報告

ISO 9001
ISO/TS 16949
IECQ QC080000
ISO 14001
OHSAS 18001 & TOSHMS

No.: 131245 DATE: MAR.21,2012

Customer 顧客名稱 : 國慶精密股份有限公司
Commodity 商品名稱 : C5210R PHOSPHOR BRONZE FOR SPRING (H)
Applied Standard 引用標準 : CNS 9503 Phosphor Bronze Sheets, Plates and Strips

Manufacture No.	銅捲製號		12M027B	12M027A
(Specification)	產品規格	Standard		
Thickness (mm)	產品厚度		0.200	0.200
Width (mm)	產品寬度		305.000	305.000
Length (mm)	產品長度			
(Chemical Analysis Test)	化性測試			
P(%)	磷	0.030 - 0.350	0.132	0.132
Sn(%)	錫	7.000 - 9.000	7.616	7.616
Cu+Sn+P(%)	銅錫磷	min. 99.700	99.966	99.966
(Mechanical & Physical Test)	物性測試			
Thickness Test (mm)	厚度測試	-0.010 +0.000	0.199	0.199
Width Test (mm)	寬度測試	-0.10 +0.00	GOOD	GOOD
Tensile Strength (kgf/mm2)	抗拉強度	58.00 - 65.00	59.60	59.60
Elongation (%)	伸長率	25.00 - 999.00	35.92	35.92
Hardness Test (Hv)	硬度	185.0 - 195.0	185.0 - 187.0	185.0 - 187.0
Grain Size (mm)	結晶粒度	-	0.010	0.010
Electric Conductivity (%)	導電率	-	11.80	11.80
(Other Information)	其他資訊			
Delivery No.	出貨單號		130518	130518

QA Supervisor: 周建偉 A901005 R1215003MH

MINCHALI METAL INDUSTRY CO., LTD.
名佳利金屬工業股份有限公司
11,Pei Yuan Road, Chung Li City, Taiwan, R.O.C.
Tel : (03)4526141-5 (03)4526017-9
Fax : (03)4529112 (03)4629625

SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B007

STYLE： RG-178B/U

SIZE: 7/0.102 SCCS

RECOGNIZED: UL 1979

WONDERFUL HI-TECH CO.,LTD

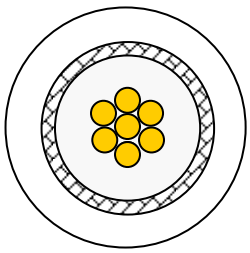
OFFICE：72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN,TAIWAN

TEL：(02)22988033
FAX：(02)22988031-2

FACTORY：17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

TEL：(03)4527777
FAX：(03)4517214

WONDERFUL HI-TECH CO., LTD
SPECIFICATION

STYLE	105℃ 30V UL1979		DOCUMENT NO : A30178B007
SIZE	RG-178B/U		ESTABLISHED DATE: 2008/11/18
STANDARD : MIL-C-17			
Conductor	Size	AWG	30
	Material	----	Silver-Coated Copper Clad Steel
	Conductors No.	----	7
	Conductors Size	mm	0.102
	O.D.	mm	0.31
Insulation	Average Thickness	mm	0.28
	Diameter	mm	0.86 ±0.03
	Material	----	FEP
	Color	----	Clear
Braid	Material	----	Tinned Copper
	Construction	mm	16 / 3 / 0.1
	Coverage	%	95.3
Jacket	Average Thickness	mm	0.25
	Diameter	mm	1.80 ±0.05
	Material	----	FEP
	Color	----	ACCORDING TO CUSTOM
Marking	Non		
Drawing			

MAKER : H. C. KUO CONFIRM : C. Y. Chen APPROVAL : W. J. Wang

WONDERFUL HI-TECH CO., LTD.
SPECIFICATION

Electrical & Physical Properties			
Item			RG-178B/U
Rating Temperature			105℃ 30V
Conductor Resistance			838 OHM/KM/20℃ MAX.
Insulation Resistance			3000 MEGA OHM-KM MIN.
Dielectric Strength			AC 1.0 KV/Minute
Spark Test			2.5 KV
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / ㎟)
		Elongation	200% MIN.
	Aged	Tensile Strength	UNAGED MIN 75%(168HRS×232℃)
		Elongation	UNAGED MIN 75%(168HRS×232℃)
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / ㎟)
		Elongation	200% MIN.
	Aged	Tensile Strength	UNAGED MIN.75%(168HRS×232℃)
		Elongation	UNAGED MIN.75%(168HRS×232℃)
Nom. Impedance			50±5 Ohms
Nom. Capacitance			95.8 pF/m
Nom. Vel. of Prop.			69.5%
VSWR (0 – 6 GHZ)			Max 1.3
THERMAL SHOCK			Max 1mm at 232℃/1HR
BEND RADIUS			Min 9mm

Attenuation (dB/1m)	1GHz	1.8GHz	2.4GHz	5.2GHz	6GHz
	1.8	2.6	2.9	4.5	4.9

MAKER : H. C. KUO CONFIRM : C. Y. Chen APPROVAL : W. J. Wang

CHIMEI
奇美實業股份有限公司
CHI MEI CORPORATION

No. 59-1, SAN CHIA, JEN TE DISTRICT, TAINAN CITY, TAIWAN
TEL: +886-6-266-5000 FAX:+886-6-266-5555~7

General ABS POLYLAC® Characteristics PA-757

特性 PROPERTIES	測試方法 ASTM TEST METHOD	測試條件 TEST CONDITION	單位 UNIT	通用級 GENERAL PA-757
熔融指數 Melt Flow Index	D1238	200 ℃, 5 Kg	g/10 min	1.6
		220 ℃, 10 Kg		-
比重 Mass Density	D792	23 ℃	-	1.05
硬度 Hardness	D785	-	R Scale	116
拉伸強度 (屈服) Tensile Strength (Yield)	D638	6 mm/min	Kg/cm^2	470
			lb/in^2	6660
延伸率 Tensile Elongation	D638	6 mm/min	%	25
彎曲強度 Flexural Strength	D790	2.8 mm/min	Kg/cm^2	790
			lb/in^2	11660
彎曲彈性模數 Flexural Modulus	D790	2.8 mm/min	10^4 Kg/cm^2	2.7
			10^5 lb/in^2	3.8
IZOD 衝擊強度 Izod Impact Strength	D256 (Notched)	6.4 mm, 23℃	Kg-cm/cm	20
			ft-lb/in	3.7
		3.2 mm, 23℃	Kg-cm/cm	21
			ft-lb/in	3.9
維氏軟化溫度 Vicat Softening Temp.	D1525	1 Kg,50 ℃/hr	℃	105
			℉	221
熱變形溫度 Heat Distortion Temp.	D648	1.8 MPa Annealed	℃	95
			℉	203
		1.8 MPa Unannealed	℃	85
			℉	186
UL 燃燒等級 UL Flammability	UL 94	-	-	1.5 mm HB

May 2, 2013

Notes：These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

供应商

東莞信泰隆五金制品有限公司

SHIN TAY LONG FIVEMETAL PRODUCT CO.,LTD.

產品質量證明書

客戶:			日期:		
品名	規格	狀態	制造方法	數量	
H65		H			
化學成份	銅(Cu)	鐵(Fe)	鉛(pb)	鋅(Zn)	雜質
	64.878%	0.012%	0.014%	35.093%	0.003%
機械性能	抗拉強度(不少于)	延伸率(不少于)	直徑公差	[illegible]	

主管: [illegible] 化驗員: [illegible]

RoHS REPORT INDEX

	NAME	供應商	RoHS report
1	Connector		
1-1	BRASS	晟富金屬工業股份有限公司	CE/2019/10644
1-2	LDPE	台灣聚合化學品股份有限公司	CE/2018/C1676
1-3	磷青銅	旺昱欣業股份有限公司	CE/2018/C4896
2	Cable-RG178		
2-1	外被	WONDERFUL HI-TECH CO., LTD.	TWNC00757359
2-2	金屬線	WONDERFUL HI-TECH CO., LTD.	TWNC00757370
2-3	FEP	大金氟化工（中国）有限公司	SHAEC1815670402
3	ABS-PA757	CHI MEI CORPORATION	0114084381d7 001
4	銅管	宜興震辰銅業有限公司	SHAEC1905253402

測試報告

號碼(No.) : CE/2019/10644　　日期(Date) : 2019/01/10　　頁數(Page): 1 of 6

Test Report

晟富金屬工業股份有限公司
CHENG FU METAL IND. CO., LTD.
新北市泰山區楓江路46巷102號
NO. 102, LANE 46, FONGJIANG RD., TAISHAN DIST., NEW TAIPEI CITY 24343, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By)	:	晟富金屬工業股份有限公司 (CHENG FU METAL IND. CO., LTD.)
樣品名稱(Sample Description)	:	FREE-CUTTING BRASS (一般環保黃銅)
樣品型號(Style/Item No.)	:	3604
收件日期(Sample Receiving Date)	:	2019/01/03
測試期間(Testing Period)	:	2019/01/03 to 2019/01/10

==========

測試需求(Test Requested) : 依據客戶指定，參考RoHS指令2011/65/EU Annex II測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚. (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample(s).)

測試方法(Test Method) : 請參閱下一頁 (Please refer to following pages).

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

Troy Chang / Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

測試報告
Test Report

晟富金屬工業股份有限公司
CHENG FU METAL IND. CO., LTD.
新北市泰山區楓江路46巷102號
NO. 102, LANE 46, FONGJIANG RD., TAISHAN DIST., NEW TAIPEI CITY 24343, TAIWAN

測試結果(Test Results)

測試部位(PART NAME)No.1 : 黃銅色金屬 (BRASS METAL)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	12.4
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	29300
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4 (2013) and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI)(#2)	$\mu g/cm^2$	參考IEC 62321-7-1 (2015), 以UV-VIS檢測. / With reference to IEC 62321-7-1 (2015) and performed by UV-VIS.	0.10	n.d.
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n.d.
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n.d.
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n.d.
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n.d.
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n.d.

測試報告
Test Report

晟富金屬工業股份有限公司
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NO. 102, LANE 46, FONGJIANG RD., TAISHAN DIST., NEW TAIPEI CITY 24343, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n.d.
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n.d.

備註(Note):

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm², 表示樣品表層含有六價鉻. / The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²), 表示表層不含六價鉻. / The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating.
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時, 無法確定塗層是否含有六價鉻. / The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.

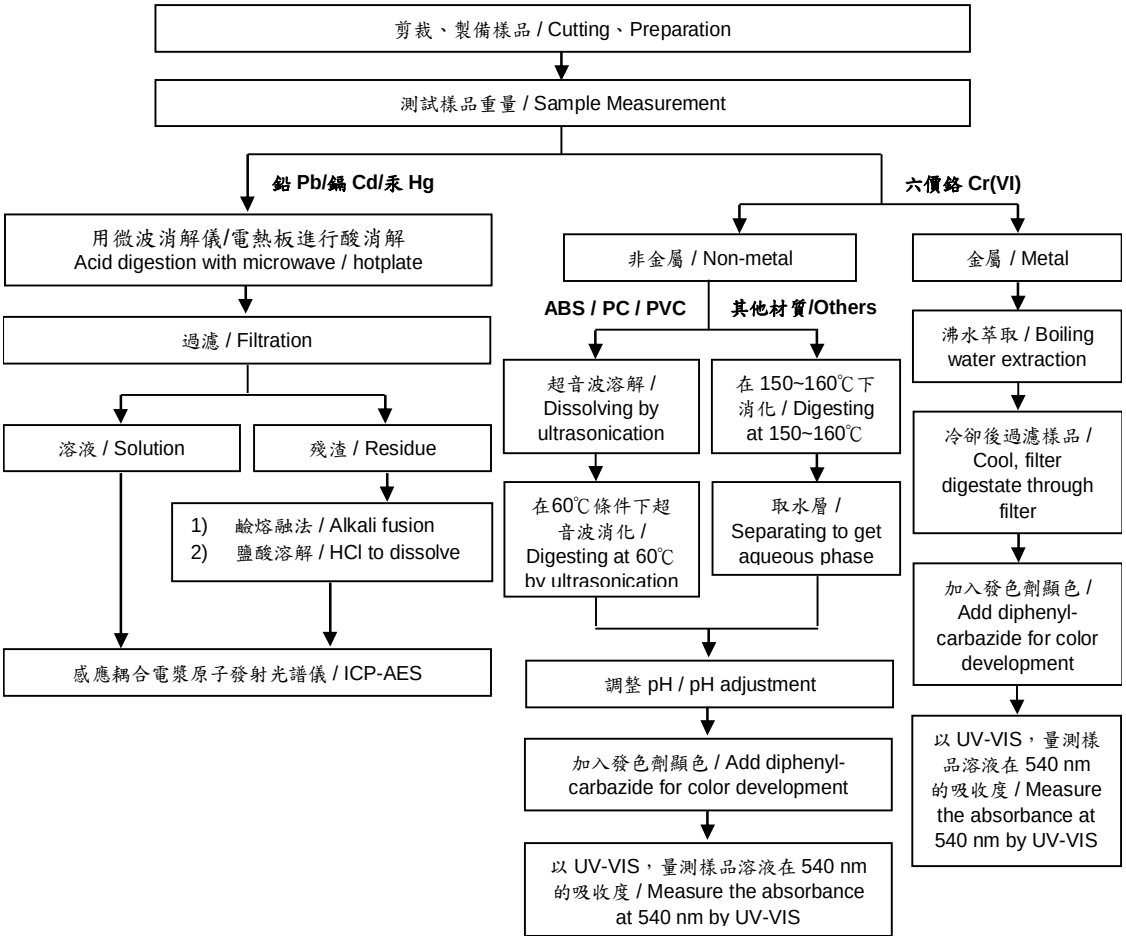
測試報告
Test Report

晟富金屬工業股份有限公司
CHENG FU METAL IND. CO., LTD.
新北市泰山區楓江路46巷102號
NO. 102, LANE 46, FONGJIANG RD., TAISHAN DIST., NEW TAIPEI CITY 24343, TAIWAN

重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）
These samples were dissolved totally by pre-conditioning method according to below flow chart.（Cr^{6+} test method excluded）

- 測試人員：陳恩臻 / Technician : Rita Chen
- 測試負責人：張啟興 / Supervisor: Troy Chang

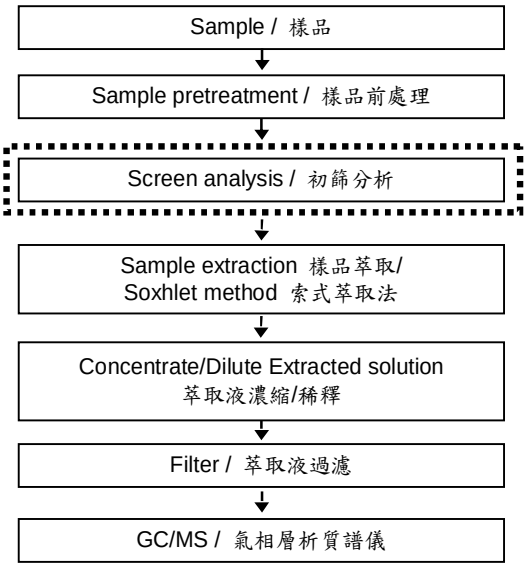


晟富金屬工業股份有限公司
CHENG FU METAL IND. CO., LTD.
新北市泰山區楓江路46巷102號
NO. 102, LANE 46, FONGJIANG RD., TAISHAN DIST., NEW TAIPEI CITY 24343, TAIWAN

多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor: Troy Chang

初次測試程序 / First testing process
選擇性篩檢程序 / Optional screen process
確認程序 / Confirmation process



測試報告
Test Report

晟富金屬工業股份有限公司
CHENG FU METAL IND. CO., LTD.
新北市泰山區楓江路46巷102號
NO. 102, LANE 46, FONGJIANG RD., TAISHAN DIST., NEW TAIPEI CITY 24343, TAIWAN

＊ 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ＊
(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2019/10644

** 報告結尾 (End of Report) **

測試報告
Test Report

號碼(No.) : CE/2018/C1676　日期(Date) : 2018/12/19　　頁數 (Page) : 1 of 8

台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By)	:	台灣聚合化學品股份有限公司 (USI CORPORATION)
樣品名稱(Sample Description)	:	LOW DENSITY POLYETHYLENE RESINS (LDPE)(低密度聚乙烯樹脂 (LDPE))
樣品型號(Style/Item No.)	:	NA112-27;NA205-15;NA208;NA248;NA207-66
收件日期(Sample Receiving Date)	:	2018/12/11
測試期間(Testing Period)	:	2018/12/11 TO 2018/12/19

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測試需求(Test Requested)	:	依據客戶指定，參考RoHS2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP. (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
測試方法(Test Method)	:	請參閱下一頁 (Please refer to following pages).
測試結果(Test Results)	:	請參閱下一頁 (Please refer to following pages).
結　　論(Conclusion)	:	根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚, DBP, BBP, DEHP, DIBP的測試結果符合RoHS指令暨(EU) 2015/863之限值要求. (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS and amending Directive (EU) 2015/863.)

SGS TAIWAN LTD
Troy Chang / Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

測試報告
Test Report

台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

測試結果(Test Results)

測試部位(PART NAME)No.1 : 半透明塑膠粒 (TRANSLUCENT PLASTIC PELLETS)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg		2	n.d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4 (2013) and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI) (◆)	mg/kg	參考IEC 62321-7-2 (2017)，以UV-VIS檢測；參考IEC 62321-5 (2013)，以ICP-AES檢測. / With reference to IEC 62321-7-2 (2017) and performed by UV-VIS. ；With reference to IEC 62321-5 (2013) and performed by ICP-AES.	8	n.d.	1000
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.	1000
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n.d.	-
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n.d.	-
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n.d.	-
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n.d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.	-
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.	-
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n.d.	-

測試報告
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台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n.d.	-
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n.d.	-
鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg	參考IEC 62321-8 (2017), 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8 (2017). Analysis was performed by GC/MS.	50	n.d.	1000
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n.d.	1000
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg		50	n.d.	1000
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n.d.	1000

台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

備註(Note)：

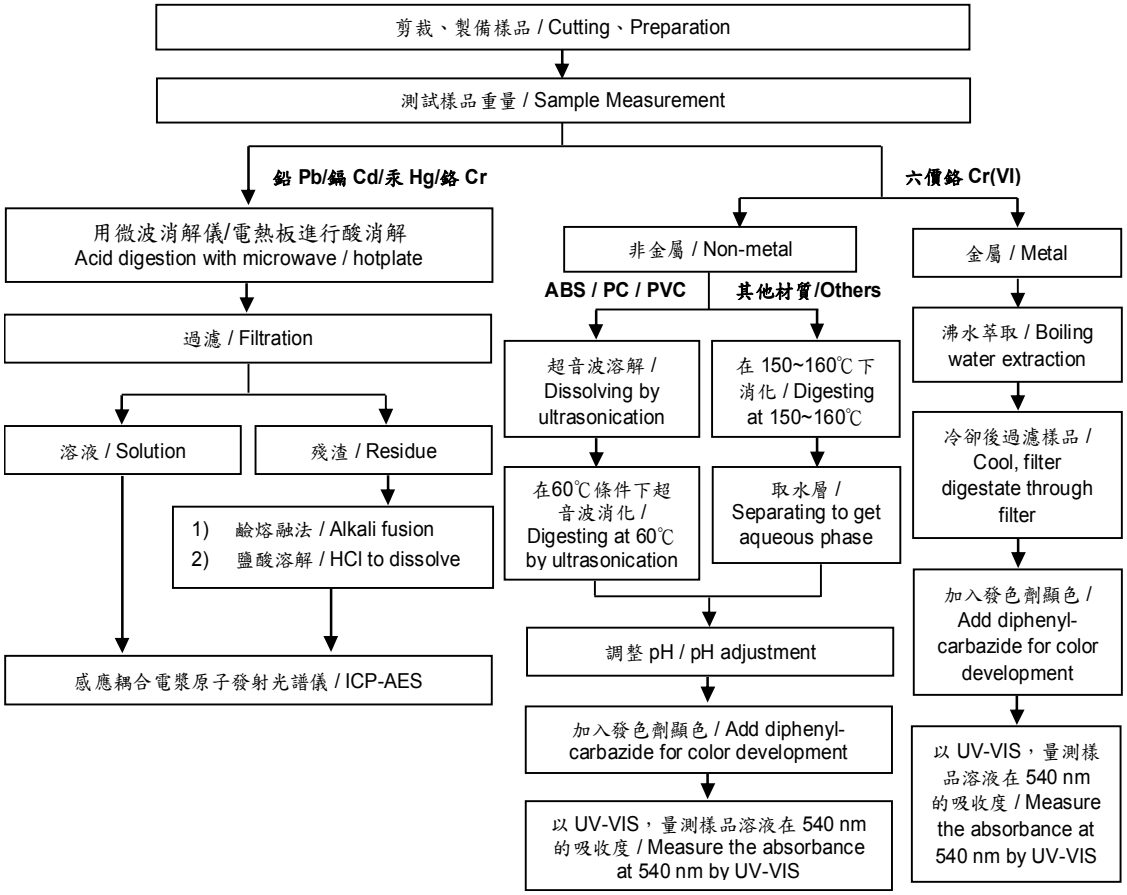
1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. (◆)：
   若鉻含量小於六價鉻之方法偵測極限值，則六價鉻為n.d.，不須再測試六價鉻。
   The result of Cr(VI) is "n.d." as the result of Chromium (Cr) is less than the MDL of Cr(VI), and confirmation test of Cr(VI) is not required.
   若鉻含量未小於六價鉻之方法偵測極限值，需進行六價鉻測試。
   If the Chromium (Cr) content is not less than the MDL of Cr(VI), confirmation test of Cr(VI) is required.

台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）
These samples were dissolved totally by pre-conditioning method according to below flow chart.（Cr^{6+} test method excluded）

- 測試人員：陳恩臻 / Technician : Rita Chen
- 測試負責人：張啟興 / Supervisor: Troy Chang

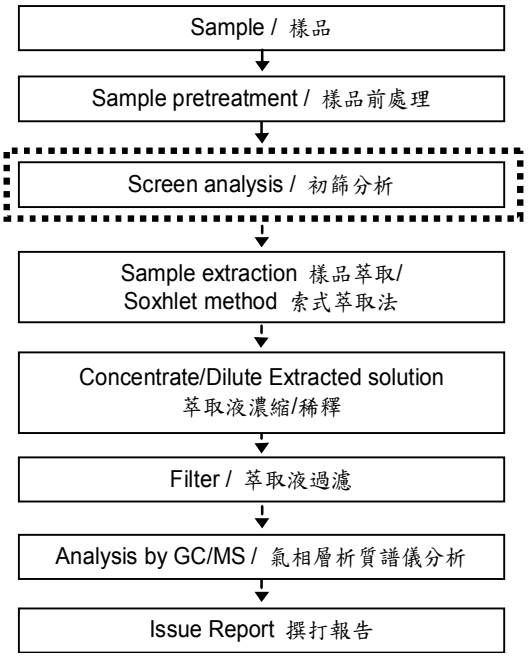


台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor: Troy Chang

初次測試程序 / First testing process
選擇性篩檢程序 / Optional screen process
確認程序 / Confirmation process

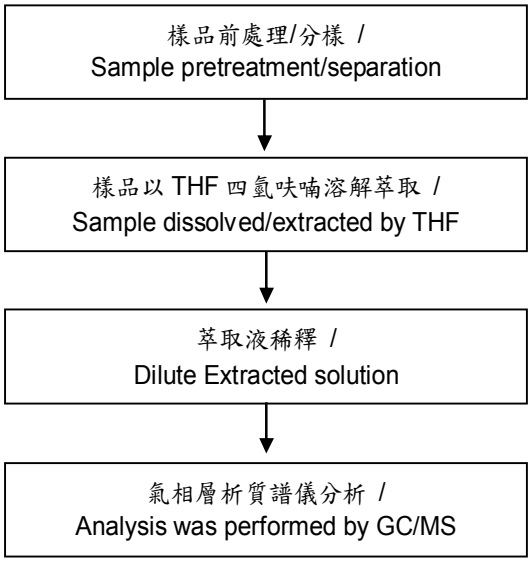


台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

可塑劑分析流程圖 / Analytical flow chart - Phthalate

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor : Troy Chang

【測試方法/Test method: IEC 62321-8】



測試報告
Test Report

號碼(No.) : CE/2018/C1676　日期(Date) : 2018/12/19　

台灣聚合化學品股份有限公司
USI CORPORATION
高雄市仁武區後安里鳳仁路330號
NO.330, FENGREN RD., RENWU DIST., KAOHSIUNG, TAIWAN

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2018/C1676

** 報告結尾 (End of Report) **

測試報告
Test Report

號碼(No.) : CE/2018/C4896　　日期(Date) : 2019/01/03　　頁數(Page): 1 of 6

旺昱欣業股份有限公司
WANG YU MANUFACTURING CO., LTD.
桃園市蘆竹區海山路598號
NO. 598, HAISAN RD., LUZHU DIST., TAOYUAN CITY, TAIWAN (R. O. C.)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By)	:	鋒鎂工業股份有限公司 (F-MAGNESIUM INDUSTRY CO., LTD.)
樣品名稱(Sample Description)	:	PHOSPHOR BRONZE (磷青銅)
樣品型號(Style/Item No.)	:	C5210
收件日期(Sample Receiving Date)	:	2018/12/25
測試期間(Testing Period)	:	2018/12/25 to 2019/01/03

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測試需求(Test Requested) : 依據客戶指定，參考RoHS指令2011/65/EU Annex II測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚. (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample(s).)

測試方法(Test Method) : 請參閱下一頁 (Please refer to following pages).

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

結論(Conclusion) : 根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚的測試結果符合RoHS 2011/65/EU Annex II之限值要求. (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II.)

Troy Chang / Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

測試報告
Test Report

旺昱欣業股份有限公司
WANG YU MANUFACTURING CO., LTD.
桃園市蘆竹區海山路598號
NO. 598, HAISAN RD., LUZHU DIST., TAOYUAN CITY, TAIWAN (R. O. C.)

測試結果(Test Results)

測試部位(PART NAME)No.1 : 銅色金屬片 (COPPER COLORED METAL SHEET)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg		2	11.5	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4 (2013), 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4 (2013) and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)(#2)	$\mu g/cm^2$	參考IEC 62321-7-1 (2015), 以UV-VIS檢測. / With reference to IEC 62321-7-1 (2015) and performed by UV-VIS.	0.10	n.d.	-
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.	1000
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n.d.	-
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n.d.	-
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n.d.	-
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n.d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n.d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n.d.	-
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n.d.	-
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n.d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n.d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n.d.	-

測試報告
Test Report

旺昱欣業股份有限公司
WANG YU MANUFACTURING CO., LTD.
桃園市蘆竹區海山路598號
NO. 598, HAISAN RD., LUZHU DIST., TAOYUAN CITY, TAIWAN (R. O. C.)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	限值 (Limit)
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析/質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n.d.	-
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n.d.	-

備註(Note):

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. (#2) =
   a. 當六價鉻結果大於0.13 μg/cm², 表示樣品表層含有六價鉻. / The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm². The sample coating is considered to contain Cr(VI).
   b. 當六價鉻結果為n.d. (濃度小於0.10 μg/cm²), 表示表層不含六價鉻. / The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than 0.10 μg/cm²). The coating is considered a non-Cr(VI) based coating.
   c. 當六價鉻結果介於 0.10 及 0.13 μg/cm² 時, 無法確定塗層是否含有六價鉻. / The result between 0.10 μg/cm² and 0.13 μg/cm² is considered to be inconclusive - unavoidable coating variations may influence the determination.

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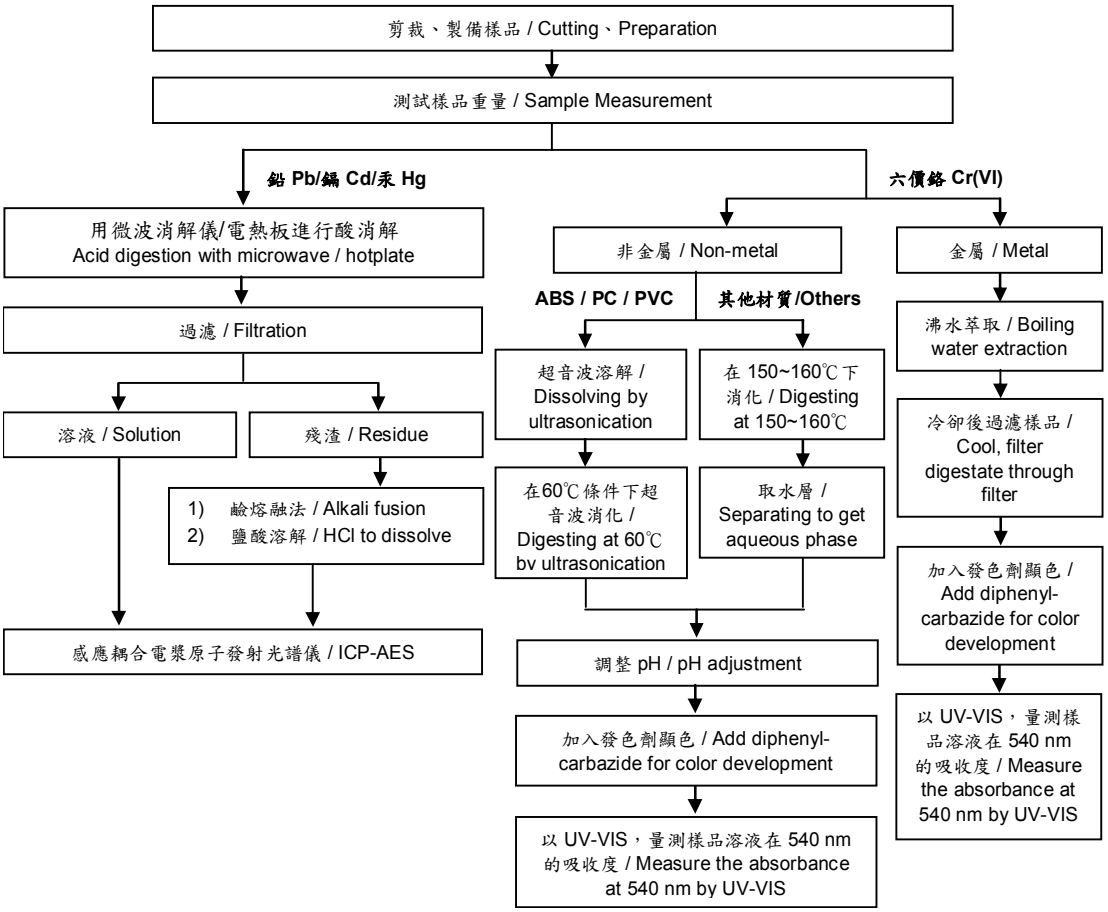
重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。（六價鉻測試方法除外）
These samples were dissolved totally by pre-conditioning method according to below flow chart.（Cr^{6+} test method excluded）

- 測試人員：陳恩臻 / Technician : Rita Chen
- 測試負責人：張啟興 / Supervisor: Troy Chang



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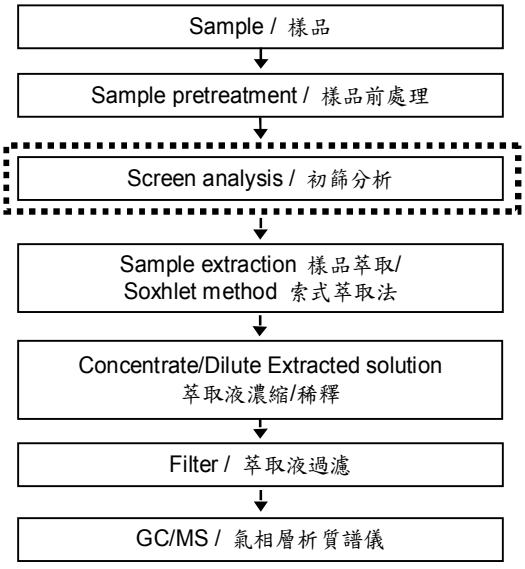
多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor: Troy Chang

初次測試程序 / First testing process
選擇性篩檢程序 / Optional screen process
確認程序 / Confirmation process



測試報告
Test Report

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＊ 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ＊
(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2018/C4896

** 報告結尾 (End of Report) **

Test Report 測試報告

Number : TWNC00757359
報告號碼

Applicant 申請廠商: WONDERFUL HI-TECH CO., LTD.
No.17, Beiyuan Rd., Zhongli Dist.,
Taoyuan City 320, Taiwan (R.O.C.)

Date 日期 : Jan 09, 2019

Sample Description 樣品敘述:

One (1) group of submitted samples said to be :
以下測試樣品乃供應商所提供及確認:

Sample Submitted By 送樣廠商	: WONDERFUL HI-TECH CO., LTD. 萬泰科技股份有限公司
Sample Description 樣品名稱	: RF COAXIAL CABLE RG-178 B/U, RG-179/U, RG-316U, RG-58A/U, MINI 0.8mm, 0.98mm, 1.13mm, 1.27mm, 1.32mm, 1.37mm, 1.48mm, RF405A, UL 1330, 1331, 1332, 1333, 1726, 1727, 1867, 1979, 10231, 10064, 10362
Style / Item No. 產品型號	: BLACK, BROWN, RED, ORANGE, YELLOW, GREEN, BLUE, PURPLE, GRAY, WHITE
Date Sample Received 收件日期	: Dec 26, 2018
Date Test Started 開始測試日期	: Dec 26, 2018

Test Conducted 測試執行:

As requested by the applicant, for details please refer to attached pages.
依申請商之要求, 細節請參考附頁.

Conclusion 結論 :

請見第二頁.

Test Components 測試元件 :

(1) Black plastic pellets
(2) Brown plastic pellets
(3) Red plastic pellets
(4) Orange plastic pellets
(5) Yellow plastic pellets
(6) Green plastic pellets
(7) Blue plastic pellets
(8) Purple plastic pellets
(9) Grey plastic pellets
(10) White plastic pellets

Authorized By:
On behalf of Intertek Testing Services Taiwan Limited

Matt Wang
Sr. Manager

Signed by:

Thomas Chou
Manager

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Test Report 測試報告

Number : TWNC00757359
報告號碼

Conclusion 結論：

Tested Sample 測試樣品	Standard 標準	Result 結果
Submitted Samples 送檢樣品	Restriction of Hazardous Substances (RoHS) 危害物質限制 －As per applicant's request with reference to 2011/65/EU and Amendment (EU) 2015/863 依據客戶要求參考歐盟指令 2011/65/EU 及其更新指令(EU) 2015/863	Pass 合格
	As per applicant's request 依據客戶要求	
	－Antimony (Sb) Content 銻含量	See Test Conducted 請見測試內容
	－Phthalates Content 鄰苯二甲酸酯含量	See Test Conducted 請見測試內容
	－Halogen Content 鹵素含量	See Test Conducted 請見測試內容
	－Perfluorooctane Sulfonates (PFOS) Content 全氟辛磺酸含量	See Test Conducted 請見測試內容
	－Perfluorooctanoic Acid (PFOA) Content 全氟辛酸含量	See Test Conducted 請見測試內容

Authorized By:
On behalf of Intertek Testing Services Taiwan Limited

Matt Wang
Sr. Manager

Signed by:

Thomas Chou
Manager

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Number : TWNC00757359
報告號碼

Test Conducted 測試內容：

Test Result Summary 測試結果：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (1)	Result 結果 (2)	Result 結果 (3)	RL
Heavy Metal 重金屬						
Cadmium (Cd) Content 鎘含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Lead (Pb) Content 鉛含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Mercury (Hg) Content 汞含量	ppm	With reference to IEC 62321-4:2013+AMD1:2017, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-4:2013+AMD 1:2017，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Antimony (Sb) Content 銻含量	ppm	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES. 參考 USEPA 3052，以微波消化法並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Chromium VI (Cr^{6+}) Content 六價鉻含量	ppm	With reference to IEC 62321-7-2: 2017, organic solvent was used to dissolve or swell sample matrix, followed by alkaline digestion and determined by UV-Vis Spectrophotometer. 參考 IEC 62321-7-2:2017，以有機溶劑溶解或使樣品基質膨脹，再進行鹼液消化，用紫外光-可見光分光光度計分析。	ND	ND	ND	8

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (1)	Result 結果 (2)	Result 結果 (3)	RL
Polybrominated Biphenyls (PBBs) 多溴聯苯						
Monobrominated Biphenyls (MonoBB) 單溴聯苯	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary. 參考 IEC 62321-6: 2015，以溶劑萃取並用氣相層析質譜儀分析，必要時會以高效液相層析儀光二極體陣列偵測儀進行確認。	ND	ND	ND	5
Dibrominated Biphenyls (DiBB) 二溴聯苯	ppm		ND	ND	ND	5
Tribrominated Biphenyls (TriBB) 三溴聯苯	ppm		ND	ND	ND	5
Tetrabrominated Biphenyls (TetraBB) 四溴聯苯	ppm		ND	ND	ND	5
Pentabrominated Biphenyls (PentaBB) 五溴聯苯	ppm		ND	ND	ND	5
Hexabrominated Biphenyls (HexaBB) 六溴聯苯	ppm		ND	ND	ND	5
Heptabrominated Biphenyls (HeptaBB) 七溴聯苯	ppm		ND	ND	ND	5
Octabrominated Biphenyls (OctaBB) 八溴聯苯	ppm		ND	ND	ND	5
Nonabrominated Biphenyls (NonaBB) 九溴聯苯	ppm		ND	ND	ND	5
Decabrominated Biphenyl (DecaBB) 十溴聯苯	ppm		ND	ND	ND	5
Polybrominated Diphenyl Ethers (PBDEs) 多溴聯苯醚						
Monobrominated Diphenyl Ethers (MonoBDE) 單溴聯苯醚	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary. 參考 IEC 62321-6: 2015，以溶劑萃取並用氣相層析質譜儀分析，必要時會以高效液相層析儀光二極體陣列偵測儀進行確認。	ND	ND	ND	5
Dibrominated Diphenyl Ethers (DiBDE) 二溴聯苯醚	ppm		ND	ND	ND	5
Tribrominated Diphenyl Ethers (TriBDE) 三溴聯苯醚	ppm		ND	ND	ND	5
Tetrabrominated Diphenyl Ethers (TetraBDE) 四溴聯苯醚	ppm		ND	ND	ND	5
Pentabrominated Diphenyl Ethers (PentaBDE) 五溴聯苯醚	ppm		ND	ND	ND	5
Hexabrominated Diphenyl Ethers (HexaBDE) 六溴聯苯醚	ppm		ND	ND	ND	5
Heptabrominated Diphenyl Ethers (HeptaBDE) 七溴聯苯醚	ppm		ND	ND	ND	5
Octabrominated Diphenyl Ethers (OctaBDE) 八溴聯苯醚	ppm		ND	ND	ND	5
Nonabrominated Diphenyl Ethers (NonaBDE) 九溴聯苯醚	ppm		ND	ND	ND	5
Decabrominated Diphenyl Ether (DecaBDE) 十溴聯苯醚	ppm		ND	ND	ND	5

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (1)	Result 結果 (2)	Result 結果 (3)	RL
Phthalates 鄰苯二甲酸酯						
Di(2-ethylhexyl) Phthalate (DEHP) 鄰苯二甲酸二(2-乙基己基)酯	ppm	With reference to IEC 62321-8:2017, by solvent extraction and determined by GC-MS. 參考 IEC 62321-8:2017，以溶劑萃取並用氣相層析質譜儀分析。	ND	ND	ND	50
Dibutyl Phthalate (DBP) 鄰苯二甲酸二丁酯	ppm		ND	ND	ND	50
Benzyl Butyl Phthalate (BBP) 鄰苯二甲酸苯基丁酯	ppm		ND	ND	ND	50
Di-(Iso-Nonyl) Phthalate (DINP) 鄰苯二甲酸二異壬酯	ppm		ND	ND	ND	50
Di-(Iso-Decyl) Phthalate (DIDP) 鄰苯二甲酸二異癸酯	ppm		ND	ND	ND	50
Di-(N-Octyl) Phthalate (DNOP) 鄰苯二甲酸二辛酯	ppm		ND	ND	ND	50
Diisobutyl Phthalate (DIBP) 鄰苯二甲酸二異丁酯	ppm		ND	ND	ND	50
Di-n-hexyl phthalate (DNHP) 鄰苯二甲酸二正己酯	ppm		ND	ND	ND	50
Halogen Content 鹵素含量						
Fluorine (F) 氟	ppm	With reference to EN 14582:2016 by combustion bomb with oxygen and determined by Ion Chromatography. 參考 EN 14582:2016，以氧彈燃燒集氣法並用離子層析儀分析。	517552	464865	548226	50
Chlorine (Cl) 氯	ppm		ND	ND	ND	50
Bromine (Br) 溴	ppm		ND	ND	ND	50
Iodine (I) 碘	ppm		ND	ND	ND	50

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (1)	Result 結果 (2)	Result 結果 (3)	RL
Others 其他						
Perfluorooctane Sulfonates Including PFOS, PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSE, N-Et-FOSE 全氟辛磺酸含 PFOS, PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSE, N-Et-FOSE	ppm	With reference to CEN/TS 15968:2010, by solvent extraction and determined by LC-MS-MS. 參考 CEN/TS 15968:2010，以溶劑萃取並用液相層析串聯質譜儀分析。	ND	ND	ND	0.01
Perfluorooctanoic Acid (PFOA) 全氟辛酸	ppm	With reference to CEN/TS 15968:2010, by solvent extraction and determined by LC-MS-MS. 參考 CEN/TS 15968:2010，以溶劑萃取並用液相層析串聯質譜儀分析。	ND	ND	ND	0.01

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (4)	Result 結果 (5)	Result 結果 (6)	RL
Heavy Metal 重金屬						
Cadmium (Cd) Content 鎘含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Lead (Pb) Content 鉛含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Mercury (Hg) Content 汞含量	ppm	With reference to IEC 62321-4:2013+AMD1:2017, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-4:2013+AMD 1:2017，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Antimony (Sb) Content 銻含量	ppm	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES. 參考 USEPA 3052，以微波消化法並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	2
Chromium VI (Cr^{6+}) Content 六價鉻含量	ppm	With reference to IEC 62321-7-2: 2017, organic solvent was used to dissolve or swell sample matrix, followed by alkaline digestion and determined by UV-Vis Spectrophotometer. 參考 IEC 62321-7-2:2017，以有機溶劑溶解或使樣品基質膨脹，再進行鹼液消化，用紫外光-可見光分光光度計分析。	ND	ND	ND	8

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (4)	Result 結果 (5)	Result 結果 (6)	RL
Polybrominated Biphenyls (PBBs) 多溴聯苯						
Monobrominated Biphenyls (MonoBB) 單溴聯苯	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary. 參考 IEC 62321-6: 2015，以溶劑萃取並用氣相層析質譜儀分析，必要時會以高效液相層析儀光二極體陣列偵測儀進行確認。	ND	ND	ND	5
Dibrominated Biphenyls (DiBB) 二溴聯苯	ppm		ND	ND	ND	5
Tribrominated Biphenyls (TriBB) 三溴聯苯	ppm		ND	ND	ND	5
Tetrabrominated Biphenyls (TetraBB) 四溴聯苯	ppm		ND	ND	ND	5
Pentabrominated Biphenyls (PentaBB) 五溴聯苯	ppm		ND	ND	ND	5
Hexabrominated Biphenyls (HexaBB) 六溴聯苯	ppm		ND	ND	ND	5
Heptabrominated Biphenyls (HeptaBB) 七溴聯苯	ppm		ND	ND	ND	5
Octabrominated Biphenyls (OctaBB) 八溴聯苯	ppm		ND	ND	ND	5
Nonabrominated Biphenyls (NonaBB) 九溴聯苯	ppm		ND	ND	ND	5
Decabrominated Biphenyl (DecaBB) 十溴聯苯	ppm		ND	ND	ND	5
Polybrominated Diphenyl Ethers (PBDEs) 多溴聯苯醚						
Monobrominated Diphenyl Ethers (MonoBDE) 單溴聯苯醚	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary. 參考 IEC 62321-6: 2015，以溶劑萃取並用氣相層析質譜儀分析，必要時會以高效液相層析儀光二極體陣列偵測儀進行確認。	ND	ND	ND	5
Dibrominated Diphenyl Ethers (DiBDE) 二溴聯苯醚	ppm		ND	ND	ND	5
Tribrominated Diphenyl Ethers (TriBDE) 三溴聯苯醚	ppm		ND	ND	ND	5
Tetrabrominated Diphenyl Ethers (TetraBDE) 四溴聯苯醚	ppm		ND	ND	ND	5
Pentabrominated Diphenyl Ethers (PentaBDE) 五溴聯苯醚	ppm		ND	ND	ND	5
Hexabrominated Diphenyl Ethers (HexaBDE) 六溴聯苯醚	ppm		ND	ND	ND	5
Heptabrominated Diphenyl Ethers (HeptaBDE) 七溴聯苯醚	ppm		ND	ND	ND	5
Octabrominated Diphenyl Ethers (OctaBDE) 八溴聯苯醚	ppm		ND	ND	ND	5
Nonabrominated Diphenyl Ethers (NonaBDE) 九溴聯苯醚	ppm		ND	ND	ND	5
Decabrominated Diphenyl Ether (DecaBDE) 十溴聯苯醚	ppm		ND	ND	ND	5

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (4)	Result 結果 (5)	Result 結果 (6)	RL
Phthalates 鄰苯二甲酸酯						
Di(2-ethylhexyl) Phthalate (DEHP) 鄰苯二甲酸二(2-乙基己基)酯	ppm	With reference to IEC 62321-8:2017, by solvent extraction and determined by GC-MS. 參考 IEC 62321-8:2017，以溶劑萃取並用氣相層析質譜儀分析。	ND	ND	ND	50
Dibutyl Phthalate (DBP) 鄰苯二甲酸二丁酯	ppm		ND	ND	ND	50
Benzyl Butyl Phthalate (BBP) 鄰苯二甲酸苯基丁酯	ppm		ND	ND	ND	50
Di-(Iso-Nonyl) Phthalate (DINP) 鄰苯二甲酸二異壬酯	ppm		ND	ND	ND	50
Di-(Iso-Decyl) Phthalate (DIDP) 鄰苯二甲酸二異癸酯	ppm		ND	ND	ND	50
Di-(N-Octyl) Phthalate (DNOP) 鄰苯二甲酸二辛酯	ppm		ND	ND	ND	50
Diisobutyl Phthalate (DIBP) 鄰苯二甲酸二異丁酯	ppm		ND	ND	ND	50
Di-n-hexyl phthalate (DNHP) 鄰苯二甲酸二正己酯	ppm		ND	ND	ND	50
Halogen Content 鹵素含量						
Fluorine (F) 氟	ppm	With reference to EN 14582:2016 by combustion bomb with oxygen and determined by Ion Chromatography. 參考 EN 14582:2016，以氧彈燃燒集氣法並用離子層析儀分析。	533514	556951	453758	50
Chlorine (Cl) 氯	ppm		ND	ND	ND	50
Bromine (Br) 溴	ppm		ND	ND	ND	50
Iodine (I) 碘	ppm		ND	ND	ND	50

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (4)	Result 結果 (5)	Result 結果 (6)	RL
Others 其他						
Perfluorooctane Sulfonates Including PFOS, PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSE, N-Et-FOSE 全氟辛磺酸含 PFOS, PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSE, N-Et-FOSE	ppm	With reference to CEN/TS 15968:2010, by solvent extraction and determined by LC-MS-MS. 參考 CEN/TS 15968:2010，以溶劑萃取並用液相層析串聯質譜儀分析。	ND	ND	ND	0.01
Perfluorooctanoic Acid (PFOA) 全氟辛酸	ppm	With reference to CEN/TS 15968:2010, by solvent extraction and determined by LC-MS-MS. 參考 CEN/TS 15968:2010，以溶劑萃取並用液相層析串聯質譜儀分析。	ND	ND	ND	0.01

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (7)	(8)	(9)	(10)	RL
Heavy Metal 重金屬							
Cadmium (Cd) Content 鎘含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Lead (Pb) Content 鉛含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Mercury (Hg) Content 汞含量	ppm	With reference to IEC 62321-4:2013+AMD1:2017, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-4:2013+AMD 1:2017，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Antimony (Sb) Content 銻含量	ppm	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES. 參考 USEPA 3052，以微波消化法並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Chromium VI (Cr^{6+}) Content 六價鉻含量	ppm	With reference to IEC 62321-7-2: 2017, organic solvent was used to dissolve or swell sample matrix, followed by alkaline digestion and determined by UV-Vis Spectrophotometer. 參考 IEC 62321-7-2:2017，以有機溶劑溶解或使樣品基質膨脹，再進行鹼液消化，用紫外光-可見光分光光度計分析。	ND	ND	ND	ND	8

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (7)	(8)	(9)	(10)	RL
Polybrominated Biphenyls (PBBs) 多溴聯苯							
Monobrominated Biphenyls (MonoBB) 單溴聯苯	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary. 參考 IEC 62321-6: 2015，以溶劑萃取並用氣相層析質譜儀分析，必要時會以高效液相層析儀光二極體陣列偵測儀進行確認。	ND	ND	ND	ND	5
Dibrominated Biphenyls (DiBB) 二溴聯苯	ppm		ND	ND	ND	ND	5
Tribrominated Biphenyls (TriBB) 三溴聯苯	ppm		ND	ND	ND	ND	5
Tetrabrominated Biphenyls (TetraBB) 四溴聯苯	ppm		ND	ND	ND	ND	5
Pentabrominated Biphenyls (PentaBB) 五溴聯苯	ppm		ND	ND	ND	ND	5
Hexabrominated Biphenyls (HexaBB) 六溴聯苯	ppm		ND	ND	ND	ND	5
Heptabrominated Biphenyls (HeptaBB) 七溴聯苯	ppm		ND	ND	ND	ND	5
Octabrominated Biphenyls (OctaBB) 八溴聯苯	ppm		ND	ND	ND	ND	5
Nonabrominated Biphenyls (NonaBB) 九溴聯苯	ppm		ND	ND	ND	ND	5
Decabrominated Biphenyl (DecaBB) 十溴聯苯	ppm		ND	ND	ND	ND	5
Polybrominated Diphenyl Ethers (PBDEs) 多溴聯苯醚							
Monobrominated Diphenyl Ethers (MonoBDE) 單溴聯苯醚	ppm	With reference to IEC 62321-6: 2015, by solvent extraction and determined by GC-MS and further HPLC-DAD confirmation when necessary. 參考 IEC 62321-6: 2015，以溶劑萃取並用氣相層析質譜儀分析，必要時會以高效液相層析儀光二極體陣列偵測儀進行確認。	ND	ND	ND	ND	5
Dibrominated Diphenyl Ethers (DiBDE) 二溴聯苯醚	ppm		ND	ND	ND	ND	5
Tribrominated Diphenyl Ethers (TriBDE) 三溴聯苯醚	ppm		ND	ND	ND	ND	5
Tetrabrominated Diphenyl Ethers (TetraBDE) 四溴聯苯醚	ppm		ND	ND	ND	ND	5
Pentabrominated Diphenyl Ethers (PentaBDE) 五溴聯苯醚	ppm		ND	ND	ND	ND	5
Hexabrominated Diphenyl Ethers (HexaBDE) 六溴聯苯醚	ppm		ND	ND	ND	ND	5
Heptabrominated Diphenyl Ethers (HeptaBDE) 七溴聯苯醚	ppm		ND	ND	ND	ND	5
Octabrominated Diphenyl Ethers (OctaBDE) 八溴聯苯醚	ppm		ND	ND	ND	ND	5
Nonabrominated Diphenyl Ethers (NonaBDE) 九溴聯苯醚	ppm		ND	ND	ND	ND	5
Decabrominated Diphenyl Ether (DecaBDE) 十溴聯苯醚	ppm		ND	ND	ND	ND	5

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (7)	(8)	(9)	(10)	RL
Phthalates 鄰苯二甲酸酯							
Di(2-ethylhexyl) Phthalate (DEHP)鄰苯二甲酸二(2-乙基己基)酯	ppm	With reference to IEC 62321-8:2017, by solvent extraction and determined by GC-MS. 參考 IEC 62321-8:2017，以溶劑萃取並用氣相層析質譜儀分析。	ND	ND	ND	ND	50
Dibutyl Phthalate (DBP) 鄰苯二甲酸二丁酯	ppm		ND	ND	ND	ND	50
Benzyl Butyl Phthalate (BBP) 鄰苯二甲酸苯基丁酯	ppm		ND	ND	ND	ND	50
Di-(Iso-Nonyl) Phthalate (DINP) 鄰苯二甲酸二異壬酯	ppm		ND	ND	ND	ND	50
Di-(Iso-Decyl) Phthalate (DIDP) 鄰苯二甲酸二異癸酯	ppm		ND	ND	ND	ND	50
Di-(N-Octyl) Phthalate (DNOP) 鄰苯二甲酸二辛酯	ppm		ND	ND	ND	ND	50
Diisobutyl Phthalate (DIBP) 鄰苯二甲酸二異丁酯	ppm		ND	ND	ND	ND	50
Di-n-hexyl phthalate (DNHP) 鄰苯二甲酸二正己酯	ppm		ND	ND	ND	ND	50
Halogen Content 鹵素含量							
Fluorine (F) 氟	ppm	With reference to EN 14582:2016 by combustion bomb with oxygen and determined by Ion Chromatography. 參考 EN 14582:2016，以氧彈燃燒集氣法並用離子層析儀分析。	400077	420833	550909	509544	50
Chlorine (Cl) 氯	ppm		ND	ND	ND	ND	50
Bromine (Br) 溴	ppm		ND	ND	ND	ND	50
Iodine (I) 碘	ppm		ND	ND	ND	ND	50

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Test Conducted 測試內容：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (7)	(8)	(9)	(10)	RL
Others 其他							
Perfluorooctane Sulfonates Including PFOS, PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSE, N-Et-FOSE 全氟辛磺酸含 PFOS, PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSE, N-Et-FOSE	ppm	With reference to CEN/TS 15968:2010, by solvent extraction and determined by LC-MS-MS. 參考 CEN/TS 15968:2010，以溶劑萃取並用液相層析串聯質譜儀分析。	ND	ND	ND	ND	0.01
Perfluorooctanoic Acid (PFOA) 全氟辛酸	ppm	With reference to CEN/TS 15968:2010, by solvent extraction and determined by LC-MS-MS. 參考 CEN/TS 15968:2010，以溶劑萃取並用液相層析串聯質譜儀分析。	ND	ND	ND	ND	0.01

Remarks: 備註
ppm = Parts per million based on weight of tested sample = mg/kg
百萬分之一，依據測試樣品重量計算 = 毫克/公斤
ND = Not detected 未檢測出
RL = Reporting limit, quantitation limit of analyte in sample
報告極限，測試樣品之定量偵測極限

Responsibility of Chemist 分析人員 : Pelny Hsiao/ Vita Fu

Date Sample Received 樣品收件日期 : Dec 26, 2018
Test Period 樣品測試期間 : Dec 26, 2018 to Jan 04, 2019

RoHS Limit RoHS 限值

Restricted Substances 限用物質	Limits 限值
Cadmium (Cd) content 鎘含量	0.01% (100ppm)
Lead (Pb) content 鉛含量	0.1% (1000ppm)
Mercury (Hg) content 汞含量	0.1% (1000ppm)
Chromium VI (Cr^{6+}) content 六價鉻含量	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs) 多溴聯苯	0.1% (1000ppm)
Polybrominated Diphenyl Ethers (PBDEs) 多溴聯苯醚	0.1% (1000ppm)
Di(2-ethylhexyl) Phthalate (DEHP) 鄰苯二甲酸二(2-乙基己基)酯	0.1% (1000ppm)
Dibutyl Phthalate (DBP) 鄰苯二甲酸二丁酯	0.1% (1000ppm)
Benzyl Butyl Phthalate (BBP) 鄰苯二甲酸苯基丁酯	0.1% (1000ppm)
Diisobutyl Phthalate (DIBP) 鄰苯二甲酸二異丁酯	0.1% (1000ppm)

The limits were quoted from Annex II of 2011/65/EU and Amendment (EU) 2015/863 for homogeneous material.
本限值是依據歐盟指令 2011/65/EU 及其更新指令(EU) 2015/863 之附錄二針對均質材質所訂定。

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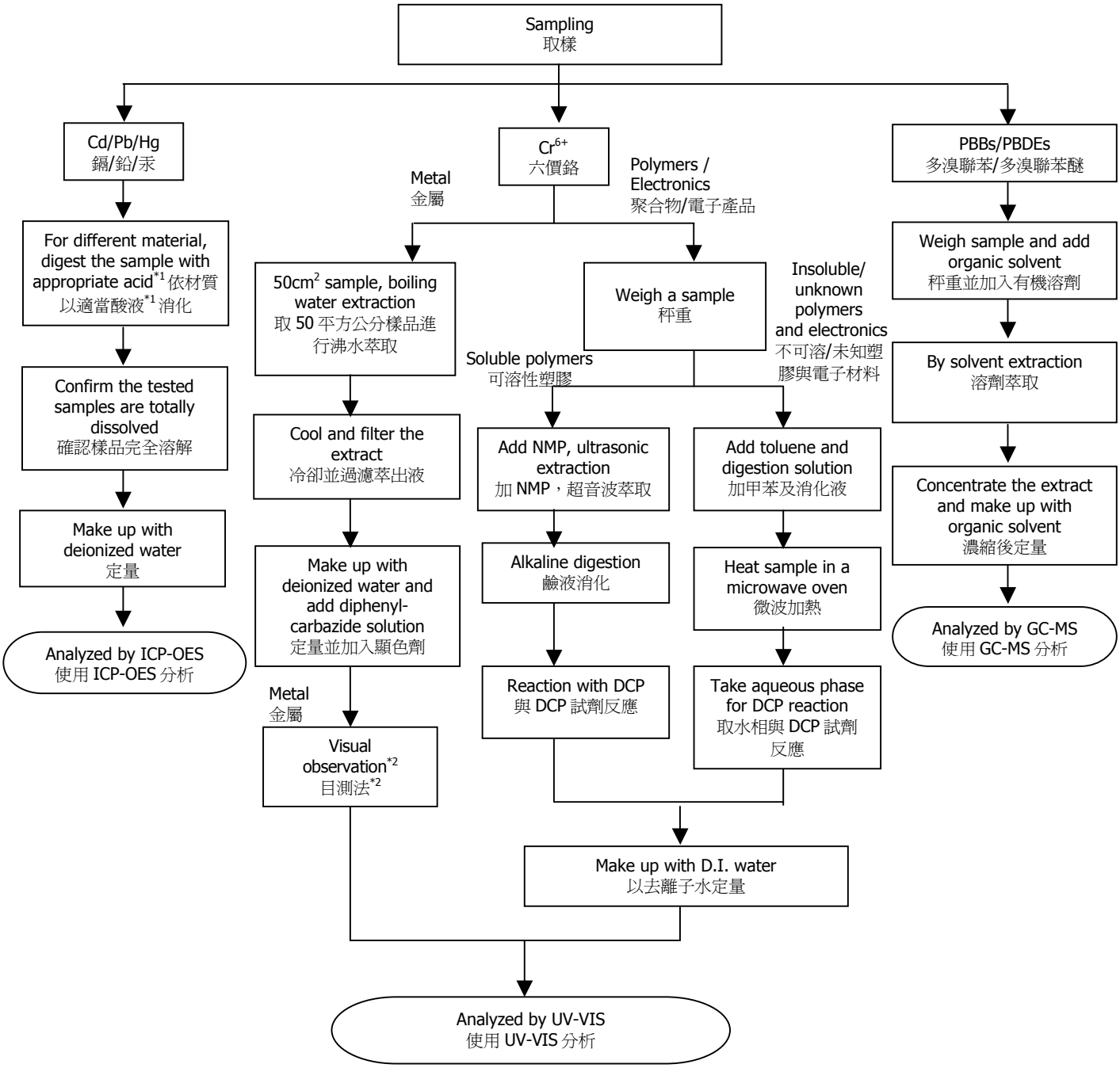
Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test for Cd/Pb/Hg/Chromium (VI)/PBBs/PBDEs Content RoHS 六項測試
Reference Method 參考方法: Cd/Pb: IEC 62321-5:2013; Hg: IEC 62321-4:2013+AMD1:2017;
Chromium (VI): IEC 62321-7-1:2015 (boiling water extraction);
Chromium (VI): IEC 62321-7-2:2017 (solvent and alkaline extraction);
PBBs/PBDEs: IEC 62321-6:2015



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Test Conducted 測試內容：

Remark 備註:

*1: List of Appropriate Acid 各材質添加酸液如下表：

Material 材質	Acid Added for Digestion 添加酸液種類
Polymers 聚合物	HNO_3,HCl,HF,H_2O_2,H_3BO_3 硝酸、鹽酸、氫氟酸、雙氧水、硼酸
Metals 金屬	HNO_3,HCl,HF 硝酸、鹽酸、氫氟酸
Electronics 電子產品	HNO_3,HCl,H_2O_2,HBF_4 硝酸、鹽酸、雙氧水、氟硼酸

*2: If sample solution is significantly more intense than 0.13 μg/cm^2 equivalent comparison standard, Chromium VI would be determined as detected, the result of visual observation is positive.
當待測樣品溶液顏色明顯比 0.13 μg/cm^2 深，採用目測法判定六價鉻結果爲陽性。

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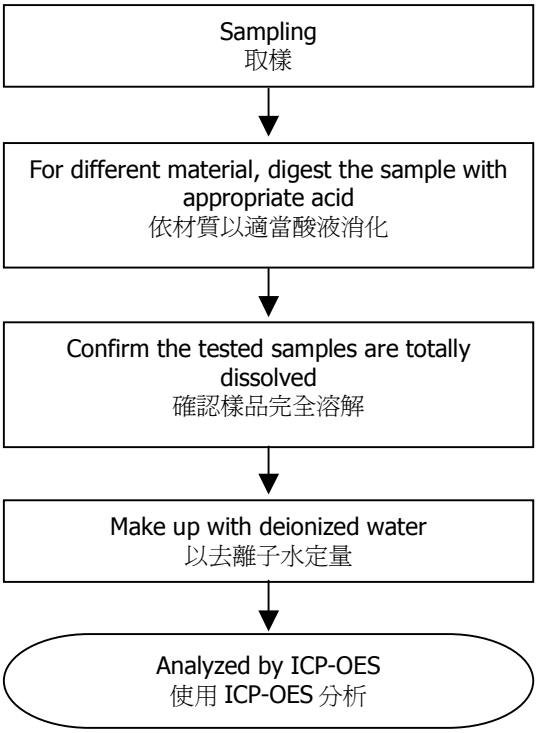
Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test for Heavy Metal (Sb) Content 重金屬(銻)
Reference Method 參考方法：USEPA 3052



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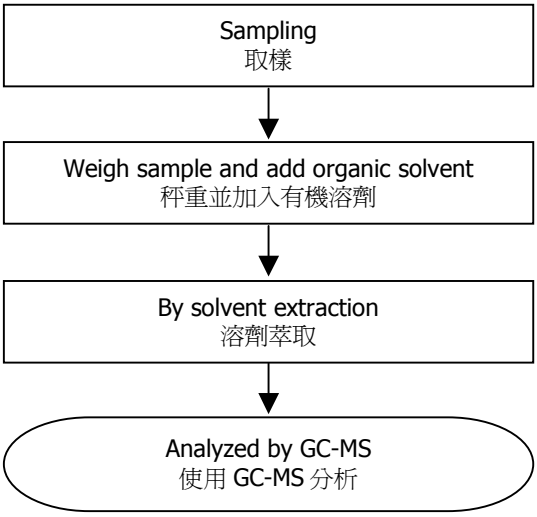
Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test for Phthalates Content 鄰苯二甲酸酯測試
Reference Method 參考方法: IEC 62321-8:2017



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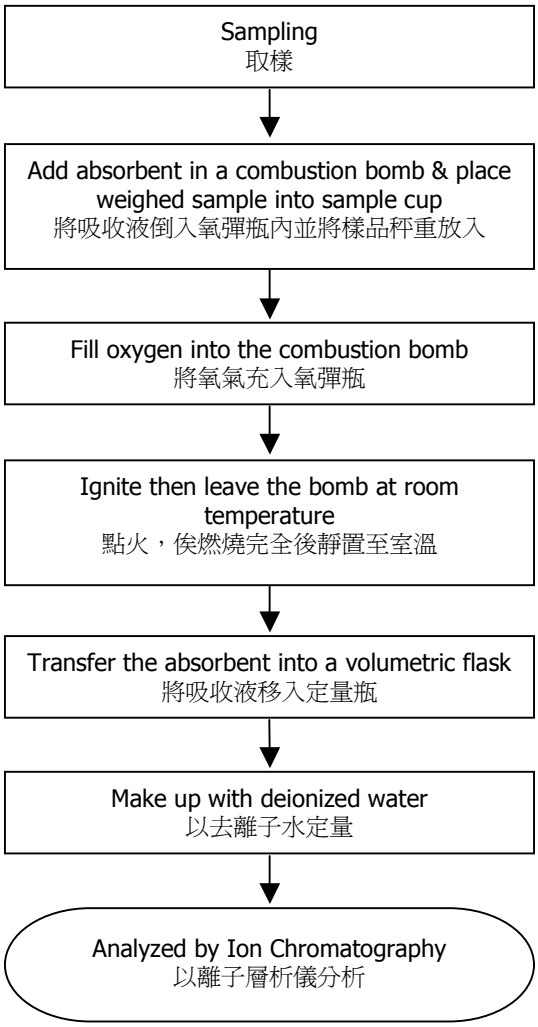
Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test for Halogen Content 鹵素測試
Reference Method 參考方法：EN 14582



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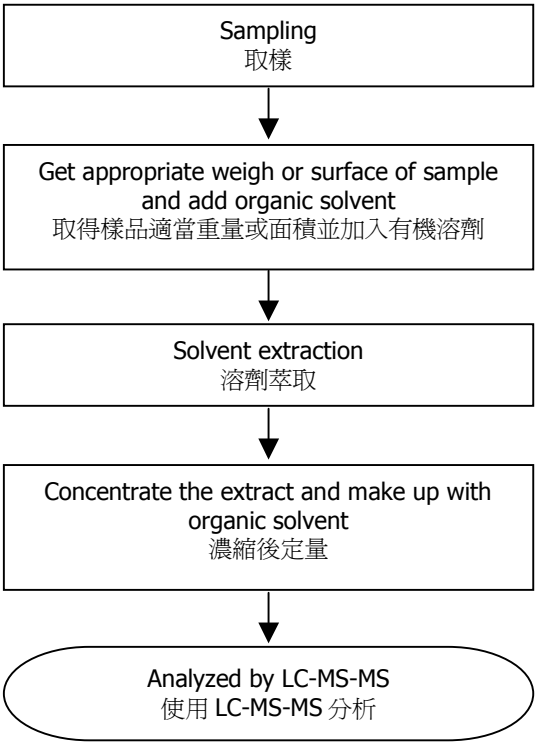
Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test for Perfluorooctane Sulfonates (PFOS) / Perfluorooctanoic Acid (PFOA) Content 全氟辛磺酸 /全氟辛酸測試
Reference Method 參考方法: CEN/TS 15968:2010



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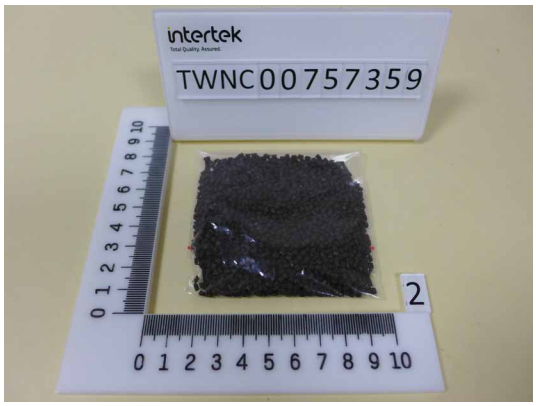
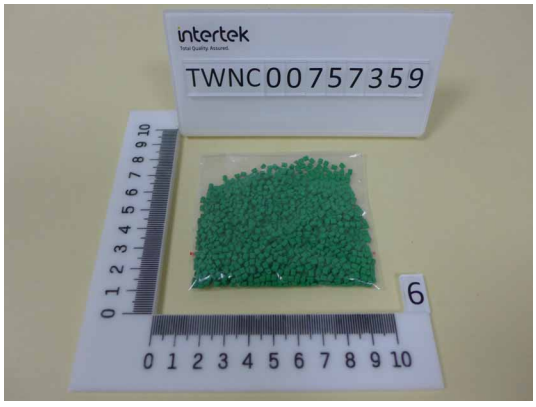
Sample photo 樣品照片：





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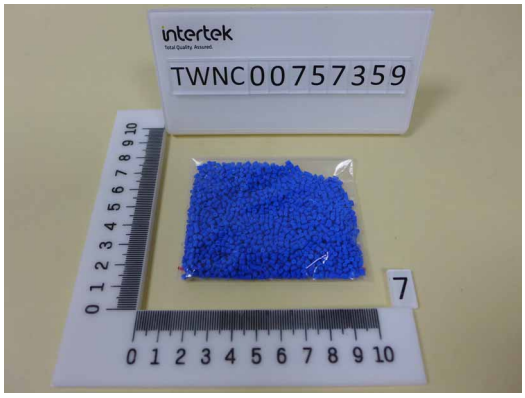
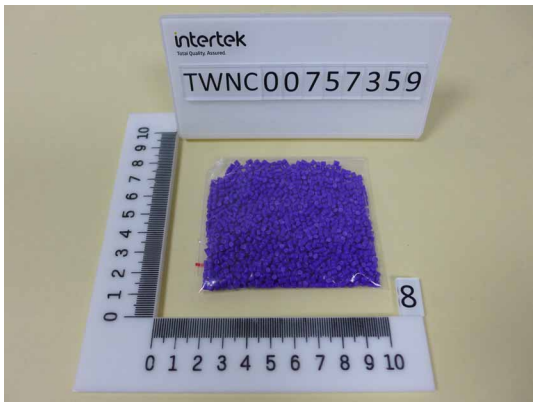
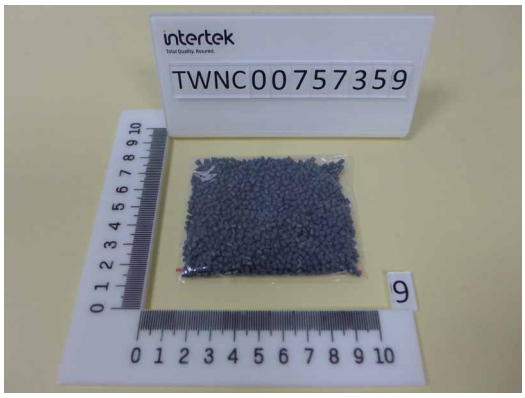
Sample photo 樣品照片：







End of Report

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Test Report 測試報告

Number 報告號碼 : TWNC00757370

Date 日期 : Jan 09, 2019

Applicant 申請廠商: WONDERFUL HI-TECH CO., LTD.
萬泰科技股份有限公司
No.17, Beiyuan Rd., Zhongli Dist.,
Taoyuan City 320, Taiwan (R.O.C.)
桃園市中壢區北園路 17 號

Sample Description 樣品敘述:

One (1) group of submitted samples said to be :
以下測試樣品乃供應商所提供及確認：

Sample Submitted By 送樣廠商	:	WONDERFUL HI-TECH CO., LTD. 萬泰科技股份有限公司
Sample Description 樣品名稱	:	鍍銀銅包鋼線, 鍍銀銅線, 鍍錫銅線 (SILVER-PLATED COPPER CLAD STEEL WIRE, SILVER-PLATED COPPER WIRE, TIN-PLATED COPPER WIRE)
Style / Item No. 產品型號	:	裸銅 COPPER/銅包鋼 SILVER-PLATED COPPER CLAD STEEL/鍍銀層 SILVER-PLATED/ 鍍錫層 TIN-PLATED
Date Sample Received 收件日期	:	Dec 26, 2018
Date Test Started 開始測試日期	:	Dec 26, 2018

Test Conducted 測試執行：

As requested by the applicant, for details please refer to attached pages.
依申請商之要求，細節請參考附頁．

Conclusion 結論：

Tested Sample 測試樣品	Standard 標準	Result 結果
Submitted Samples 送檢樣品	Restriction of Hazardous Substances (RoHS) 危害物質限制測試 – As per applicant's request with reference to 2011/65/EU 依據客戶要求參考歐盟指令 2011/65/EU	Pass 合格

Tested Components 測試元件：

(1) Coppery metal (Copper)
(2) Silvery metal (Silver-plated copper clad steel)
(3) Silvery metal (Silver-plated)
(4) Silvery metal wire (Tin-plated)

Authorized By:
On behalf of Intertek Testing Services Taiwan Limited

Matt Wang
Sr. Manager

Signed by:

Thomas Chou
Manager

Intertek Testing Services Taiwan Ltd.
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Test Conducted 測試內容：

Test Result Summary 測試結果：

Test Item 測試項目	Unit 單位	Test Method 測試方法	Result 結果 (1)	(2)	(3)	(4)	RL
Heavy Metal 重金屬							
Cadmium (Cd) Content 鎘含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Lead (Pb) Content 鉛含量	ppm	With reference to IEC 62321-5: 2013, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-5: 2013，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Mercury (Hg) Content 汞含量	ppm	With reference to IEC 62321-4: 2013+AMD1: 2017, by microwave or acid digestion and determined by ICP-OES. 參考 IEC 62321-4: 2013+AMD1: 2017，以微波或酸液消化法消化樣品並用感應耦合電漿原子發射光譜儀分析。	ND	ND	ND	ND	2
Chromium VI (Cr^{6+}) Content 六價鉻含量 @	μg/ cm^2	With reference to IEC 62321-7-1: 2015, by boiling water extraction and determined by UV-Vis Spectrophotometer or visual observation. 參考 IEC 62321-7-1: 2015，以沸水萃取並用紫外光-可見光分光光度計分析或目測法判定。	Negative	Negative (#)	Negative	Negative	0.10

Remarks: 備註
- ppm = Parts per million based on weight of tested sample = mg/kg 百萬分之一，依據測試樣品重量計算 = 毫克/公斤
- ND = Not detected 未檢測出
- RL = Reporting limit, quantitation limit of analyte in sample 報告極限，測試樣品之定量偵測極限
- # = Due to insufficient sample area, a reduced total sample surface was used and the ratio of total sample surface to extraction volume was kept at 1 cm^2 : 1 ml. 樣品面積不足，減少測試取樣面積，並調整萃取液比例爲 1 平方公分 : 1 毫升。

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Test Conducted 測試內容：

@ The explanation of Chromium VI (Cr^{6+}) analysis results 六價鉻分析結果說明

Colorimetric result 比色結果	Qualitative Result 定性結果	Explanation 說明
< 0.10 μg/cm^2	Negative 陰性	The result of sample is negative for Cr(VI). The sample coating is considered a non-Cr(VI) based coating. 六價鉻結果爲陰性。樣品之鍍層可視爲不含六價鉻。
≥ 0.10 μg/cm^2 and ≤ 0.13 μg/cm^2	Inconclusive 不確定	The result of sample is considered to be inconclusive. If addition samples are available, recommend to add trials and get the average result for the final determination. 六價鉻結果爲不確定。若可取得較多樣品，建議增加測試次數並取得其平均值，以評估最後結果。
> 0.13 μg/cm^2	Positive 陽性	The result of sample is positive for Cr(VI). The sample coating is considered to contain Cr(VI). 六價鉻結果爲陽性。樣品之鍍層可視爲含有六價鉻。 A result expresses as Positive, while not an actual value, which indicates a visual observation was used. 當結果以陽性表示，而非數值時，爲使用目測法判定。

Responsibility of Chemist 分析人員 : Pelny Hsiao

Date Sample Received 樣品收件日期 : Dec 26, 2018
Test Period 樣品測試期間 : Dec 26, 2018 to Jan 02, 2019

RoHS Limit RoHS 限值:

Restricted Substances 限用物質	Limits 限值
Cadmium (Cd) content 鎘含量	0.01% (100ppm)
Lead (Pb) content 鉛含量	0.1% (1000ppm)
Mercury (Hg) content 汞含量	0.1% (1000ppm)
Chromium VI (Cr^{6+}) content 六價鉻含量	0.1% (1000ppm)

The above limits were quoted from Annex II of 2011/65/EU for homogeneous material.
本限值是依據歐盟指令 2011/65/EU 附錄二針對均質材質所訂定。

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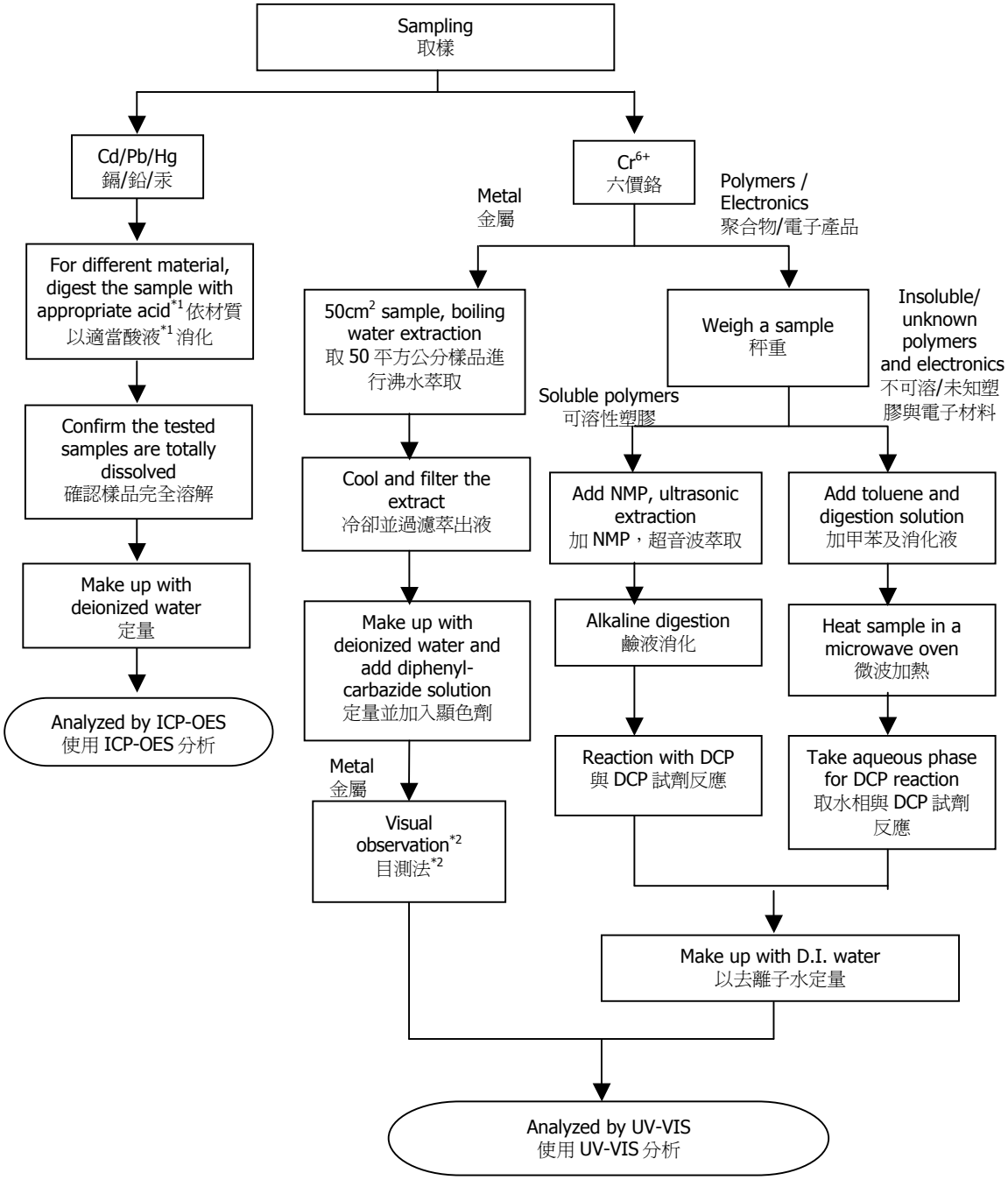
Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test For Cd/Pb/Hg/Chromium (VI) Content RoHS 四項測試
Reference Method 參考方法：Cd/Pb: IEC 62321-5:2013; Hg: IEC 62321-4:2013+AMD1:2017;
Chromium (VI): IEC 62321-7-1:2015 (boiling water extraction);
Chromium (VI): IEC 62321-7-2:2017 (solvent and alkaline extraction)



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Test Conducted 測試內容：

Remarks 備註:

*1: List of Appropriate Acid 各材質添加酸液如下表：

Material 材質	Acid Added for Digestion 添加酸液種類
Polymers 聚合物	HNO_3,HCl,HF,H_2O_2,H_3BO_3 硝酸、鹽酸、氫氟酸、雙氧水、硼酸
Metals 金屬	HNO_3,HCl,HF 硝酸、鹽酸、氫氟酸
Electronics 電子產品	HNO_3,HCl,H_2O_2,HBF_4 硝酸、鹽酸、雙氧水、氟硼酸

*2: If sample solution is significantly more intense than 0.13 μg/cm^2 equivalent comparison standard, Chromium VI would be determined as detected, the result of visual observation is positive.
當待測樣品溶液顏色明顯比 0.13 μg/cm^2 深，採用目測法判定六價鉻結果爲陽性。

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Sample photo 樣品照片：

End of Report

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测试报告

No. SHAEC1815670402 日期: 2018年07月24日

大金氟化工(中国)有限公司

中国江苏省常熟市新材料产业园西金虞路8号

以下测试之样品是由申请者所提供及确认 : NEOFLON FEP

SGS工作编号 :	SP18-023980 - SH
型号 :	NP-3180
样品接收日期 :	2018年07月16日
测试周期 :	2018年07月16日 - 2018年07月24日
测试要求 :	根据客户要求测试
测试方法 :	请参见下一页
测试结果 :	请参见下一页
结论 :	基于所送样品进行的测试，镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基已基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务（上海）有限公司
授权签名

Serena Wang王璟
批准签署人

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测试结果 :

测试样品描述 :

样品编号	SGS样品ID	描述
SN1	SHA18-156704.001	透明固体颗粒

备注 :

(1) 1 mg/kg = 0.0001%

(2) MDL = 方法检测限

(3) ND = 未检出 (< MDL)

(4) "-" = 未规定

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法 : 参考IEC 62321-4:2013+AMD1:2017， IEC 62321-5:2013，IEC 62321-7-2:2017，IEC 62321-6:2015和IEC 62321-8:2017，采用ICP-OES，UV-Vis和GC-MS进行分析。

测试项目	限值	单位	MDL	*001*
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	ND
汞(Hg)	1000	mg/kg	2	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND

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测试项目	限值	单位	MDL	*001*
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

备注 :

(1) 最大允许极限值引用自RoHS指令(EU) 2015/863 。
IEC 62321系列等同于 EN 62321系列
http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25

(2) 2015年6月4号发表在欧盟官方杂志（官方公报）上的RoHS指令(EU) 2015/863附录II限值中还包括邻苯二甲酸酯BBP，DBP，DEHP和DIBP。新的指令限制了电子电器产品的每一个均一材质中邻苯二甲酸酯含量不得超过0.1%。

(3) 2021年7月22号开始，DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械，包括体外医疗器械，监控仪表，包括工业监测和控制仪器。

(4) DEHP, BBP, DBP 和 DIBP的限制不适用于2019年7月22日前投放市场的电缆及电子电气产品中用于维修、重复利用、功能更新及容量提升的备用配件以及2021年7月22日前投放市场的医疗器械，包括体外医疗器械，监控仪表，包括工业监测和控制仪器。

(5) DEHP、BBP 和 DBP的限制不适用于玩具产品，因为No.1907/2006附录XVII第51条已对玩具产品中的DEHP、BBP 和 DBP含量进行了限制。

元素

测试方法 : 参照ASTM D 4004-06(2012). 采用ICP-OES进行分析.

测试项目	单位	MDL	*001*
锑 (Sb)	mg/kg	50	ND

六溴环十二烷 (HBCDD/HBCD)

测试方法 : 参照US EPA 3550C: 2007 方法测定, 采用GC-MS进行分析.

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测试项目	单位	MDL	*001*
六溴环十二烷 (HBCDD/HBCD)	mg/kg	10	ND

短链氯化石蜡(SCCP)(C_{10}-C_{13})

测试方法 : 参照ISO 18219: 2015 方法测定, 采用GC-NCI-MS进行分析.

测试项目	单位	MDL	*001*
短链氯化石蜡(SCCP) (C_{10}-C_{13})	mg/kg	50	ND

全氟辛烷磺酸 (PFOS)和全氟辛酸(PFOA)

测试方法 : 参照US EPA 3550C: 2007. 采用HPLC-MS测试.

测试项目	限值	单位	MDL	001
全氟辛烷磺酸(PFOS)及衍生物^	1000	mg/kg	10	ND
全氟辛酸 (PFOA)	-	mg/kg	10	ND

备注 :

(1) 最大允许限制引用自(EC) No. 850/2004 的修订指令欧盟决议(EU) No. 757/2010.
(2) ^= PFOS包含全氟辛烷磺酸(PFOS), 全氟辛基磺酰胺(PFOSA), 2-(N-乙基全氟辛基磺酰胺)乙醇(EtFOSE), N-甲基全氟辛烷磺酰胺(MeFOSA), N-乙基全氟辛烷磺酰胺(EtFOSA)和2-(N-甲基全氟辛基磺酰胺)乙醇(MeFOSE)。
检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的，仅供内部参考。

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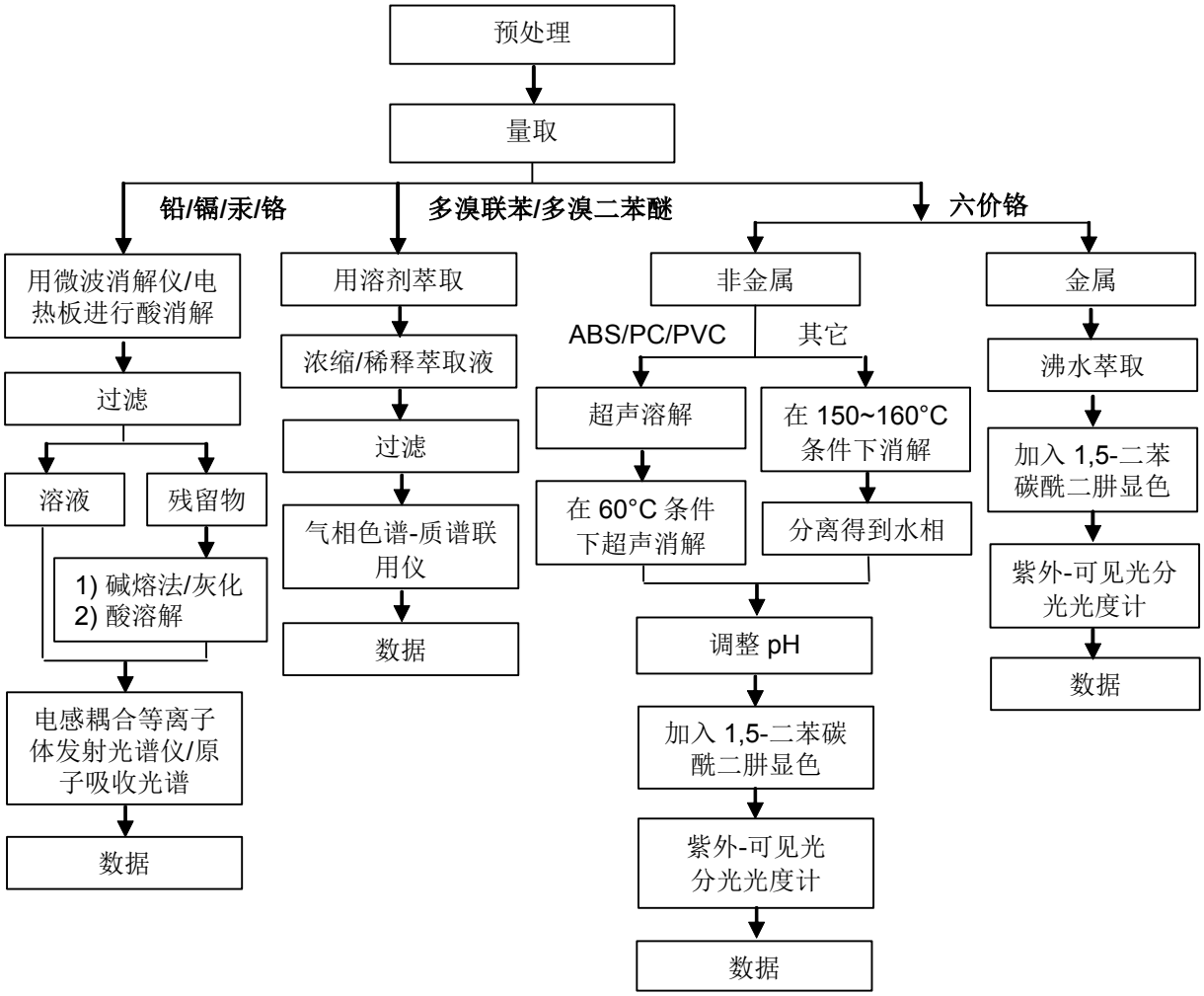
附件

Pb/Cd/Hg/Cr^{6+}/PBBs/PBDEs 测试流程图

1) 分析人员：金叶/徐刚/杨小龙 /宋珂静
2) 项目负责人：施青/马永存/徐亮/王晓艳
3) 样品按照下述流程被完全消解（六价铬和多溴联苯/多溴二苯醚测试除外）。



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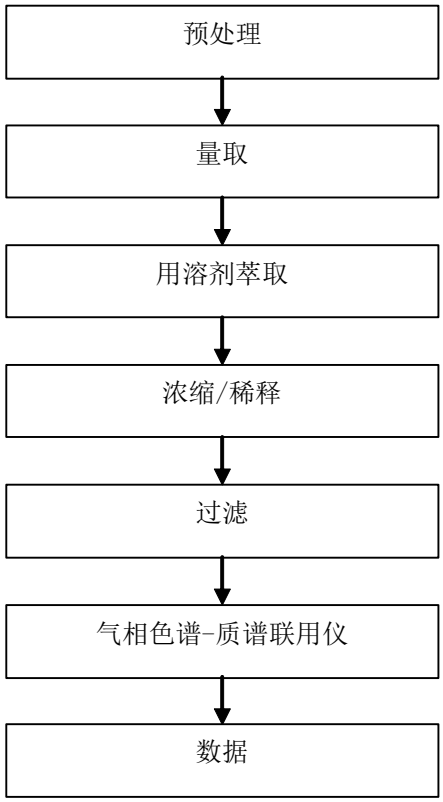
附件

Phthalates 测试流程图

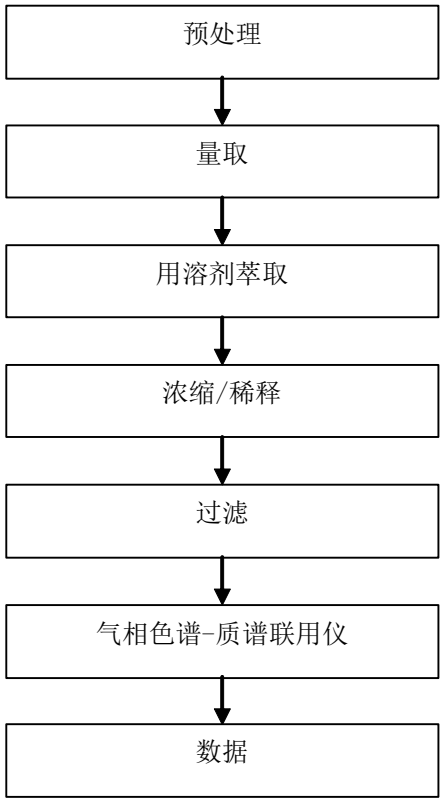
1) 分析人员: 高仰景
2) 项目负责人: 黄婷



附件

HBCDD 测试流程图

1) 分析人员: 徐刚
2) 项目负责人: 马永存



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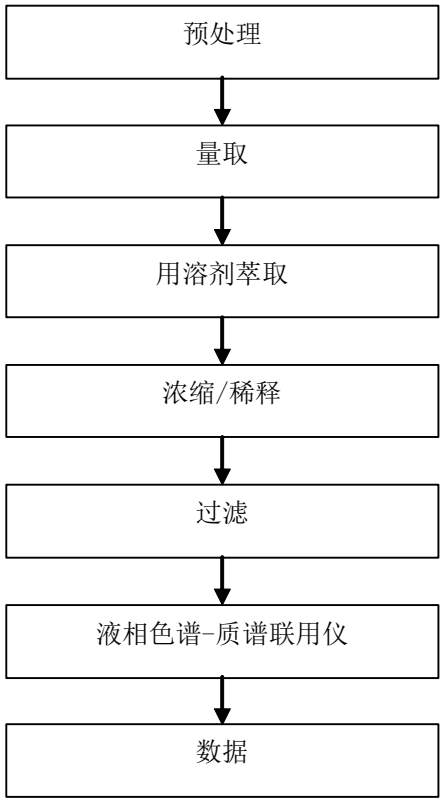
附件

PFOS/PFOA 测试流程图

1) 分析人员: 于日臣
2) 项目负责人: 黄婷



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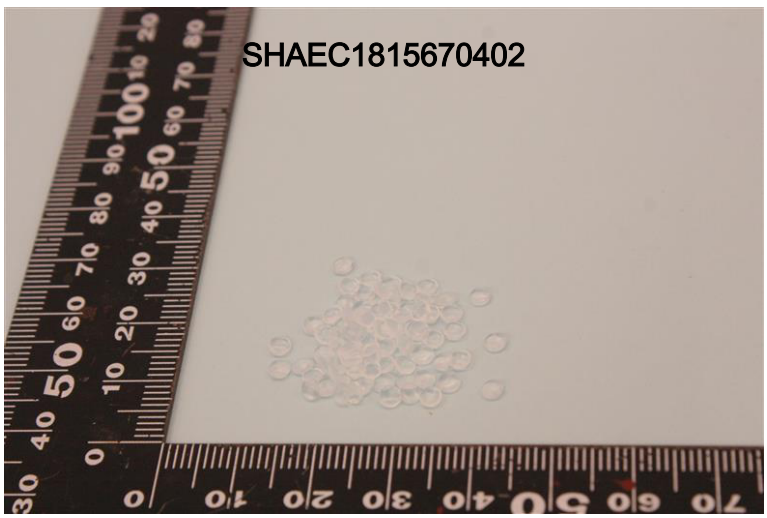
样品照片:



SHA18-156704.001

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TÜVRheinland®

Prüfbericht - Nr.: *Test Report No.:*	**0114084381d7 001**	**Seite 1 von 6** *Page 1 of 6*
Auftraggeber: *Client:*	Chi Mei Corporation No.59-1, Sanjiazi, Rende Dist., Tainan City 71702, Taiwan, R.O.C.	
Gegenstand der Prüfung: *Test Item:*	ACRYLONITRILE-BUTADIENE-STYRENE COPOLYMER	
Bezeichnung: *Identification:*	POLYLAC® PA-757 J01	
Anlieferungszustand: *Delivery condition:*	apparent good	**Eingangsdatum:** *Date of Receipt:* 2018-11-29
Prüfort: *Testing location:*	TÜV Rheinland (Shanghai) Co. Ltd.	
Prüfgrundlage: *Test specification:*	According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU last amended by (EU) 2015/863: Total Content of Lead, Cadmium, Mercury, Chromium VI, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers; and Benzylbutyl phthalate (BBP), Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Diisobutyl phthalate (DIBP) and Halogen (Fluorine, Chlorine, Bromine, Iodine)	
Prüfergebnis: *Test result:*	The test results are the measurements, stated in the test report.	

geprüft: *tested by:*

2019-01-02 Fanny Lin /Project Coordinator

Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

kontrolliert: *checked by:*

2019-01-02 Tammy Wang /Assistant Manager

Datum *Date*	**Name/Stellung** *Name/Position*	**Unterschrift** *Signature*

Sonstiges/ *Other Aspects:*

Test period: 2018-11-29 – 2019-01-02

Abkürzungen:	***ok / P***	***=***	***entspricht Prüfgrundlage***	***Abbreviations:***	***ok / P***	***=***	***passed***
	fail / F	***=***	***entspricht nicht Prüfgrundlage***		***fail / F***	***=***	***failed***
	n.a. / N	***=***	***nicht anwendbar***		***n.a. / N***	***=***	***not applicable***

Test Report No. : 0114084381d7 001 2019-01-02
Customer : Chi Mei Corporation
Test Method : Total Cadmium, Lead, Mercury, Chromium
- Ref. to IEC 62321-4:2013 and IEC 62321-5:2013
Chromium (VI)
- For Metal material - Ref. to IEC 62321-7-1:2015
- For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017
- For Leather material - Ref. to EN ISO 17075-1:2017
PBBs, PBDEs - Ref. to IEC 62321-6:2015

Sample Material Lab.-No.		LoD	POLYLAC® PA-757 J01 plastic/black TCL181129-38
Cadmium (Cd)	mg/kg	2	n.d.
Lead (Pb)	mg/kg	2	n.d.
Mercury (Hg)	mg/kg	2	n.d.
Chromium VI (Cr VI)**	mg/kg	8*	n.d.
Sum of Polybrominated biphenyls (PBBs)	mg/kg	-	n.d.
Monobromobiphenyl	mg/kg	5	n.d.
Dibromobiphenyl	mg/kg	5	n.d.
Tribromobiphenyl	mg/kg	5	n.d.
Tetrabromobiphenyl	mg/kg	5	n.d.
Pentabromobiphenyl	mg/kg	5	n.d.
Hexabromobiphenyl	mg/kg	5	n.d.
Heptabromobiphenyl	mg/kg	5	n.d.
Octabromobiphenyl	mg/kg	5	n.d.
Nonabromobiphenyl	mg/kg	5	n.d.
Decabromobiphenyl	mg/kg	5	n.d.
Sum of Polybrominated diphenyl ethers (PBDEs)	mg/kg	-	n.d.
Monobromodiphenyl ether	mg/kg	5	n.d.
Dibromodiphenyl ether	mg/kg	5	n.d.
Tribromodiphenyl ether	mg/kg	5	n.d.
Tetrabromodiphenyl ether	mg/kg	5	n.d.
Pentabromodiphenyl ether	mg/kg	5	n.d.
Hexabromodiphenyl ether	mg/kg	5	n.d.
Heptabromodiphenyl ether	mg/kg	5	n.d.
Octabromodiphenyl ether	mg/kg	5	n.d.
Nonabromodiphenyl ether	mg/kg	5	n.d.
Decabromodiphenyl ether	mg/kg	5	n.d.

Notes:
- n.d. - not detected
- n.a. - not applicable
- LoD - Limit of Detection
- mg/kg is equal to ppm (parts per million)
- * method detection limit according to IEC 62321-7-2
- **Once the total Cr content in metal/ plastic or electronic sample is found to be exceeded the limit, the Cr (VI) content will be confirmed with reference to IEC 62321-7-1:2015/ IEC 62321-7-2:2017

	Cd	Cr(VI)	Pb	Hg	PBBs	PBDEs
Maximum permissible Limit acc. to 2011/65/EU (mg/kg)	100	1000	1000	1000	1000	1000

Test Report No. : 0114084381d7 001 2019-01-02
Customer : Chi Mei Corporation
Test Method : BBP/DBP/DEHP/DIBP - Ref. to IEC 62321-8:2017
Halogen - Following EN 14582; determination by I.C.

Sample Material Lab.-No.		LoD	POLYLAC® PA-757 J01 plastic/black TCL181129-38
Benzylbutylphthalate (BBP)	mg/kg	50	n.d.
Dibutylphthalate (DBP)	mg/kg	50	n.d.
Diethylhexylphthalate (DEHP)	mg/kg	50	n.d.
Diisobutylphthalate (DIBP)	mg/kg	50	n.d.

	BBP	**DBP**	**DEHP**	**DIBP**
Maximum permissible Limit acc. to (EU) 2015/863 (mg/kg)	1000	1000	1000	1000

Sample Material Lab.-No.		LoD	POLYLAC® PA-757 J01 plastic/black TCL181129-38
Halogen	**Unit**	**LoD**	**Result**
Fluorine (F)	mg/kg	50	n.d.
Chlorine (Cl)	mg/kg	50	n.d.
Bromine (Br)	mg/kg	50	n.d.
Iodine (I)	mg/kg	50	n.d.

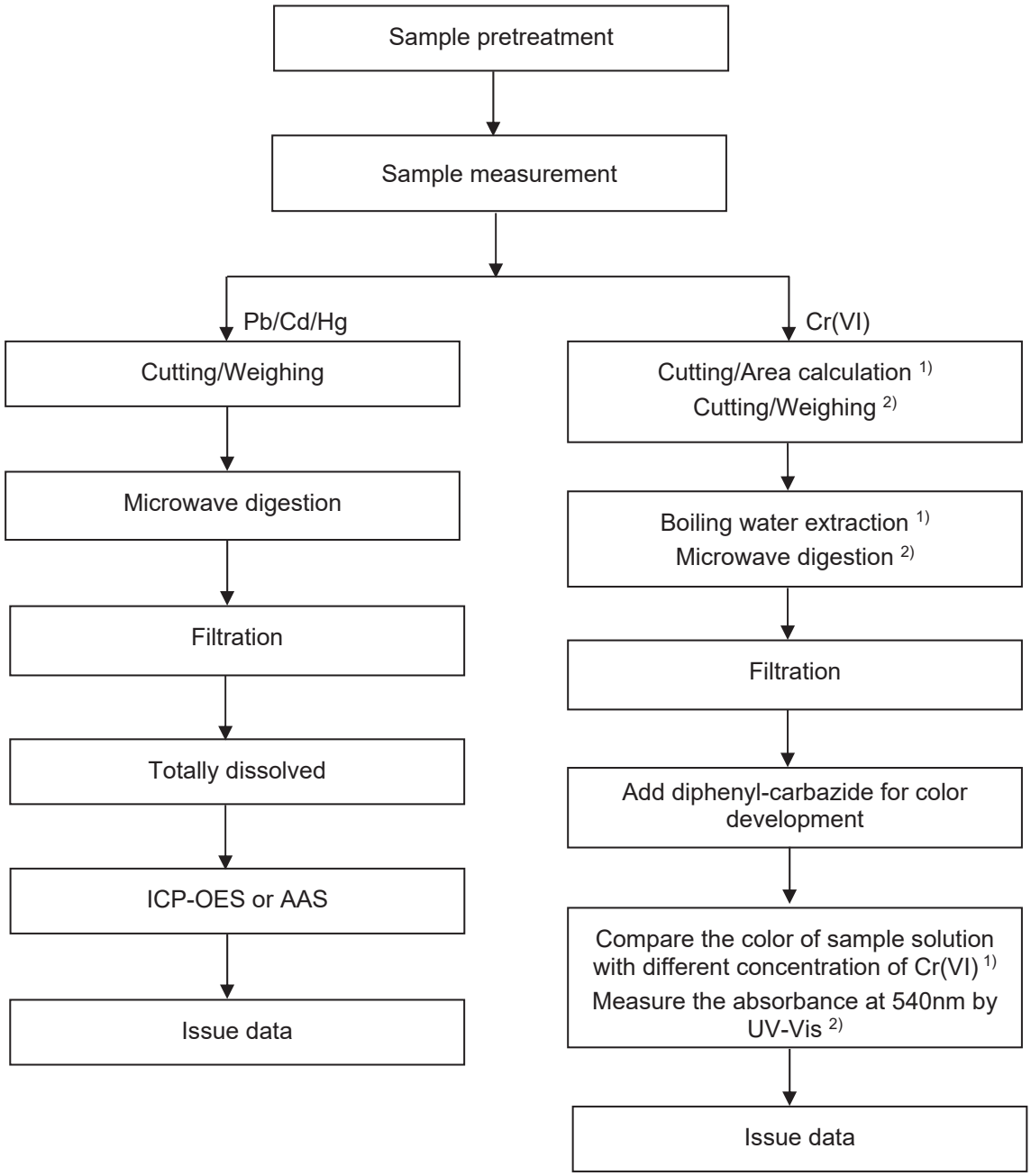
- n.d. - not detected
- n.a. - not applicable
- LoD - Limit of Detection
- mg/kg is equal to ppm (parts per million)

Test Sample

Test Report No. : 0114084381d7 001 2019-01-02
Customer : Chi Mei Corporation

Testing procedure:

RoHS (Pb, Cd, Hg, Cr(VI))

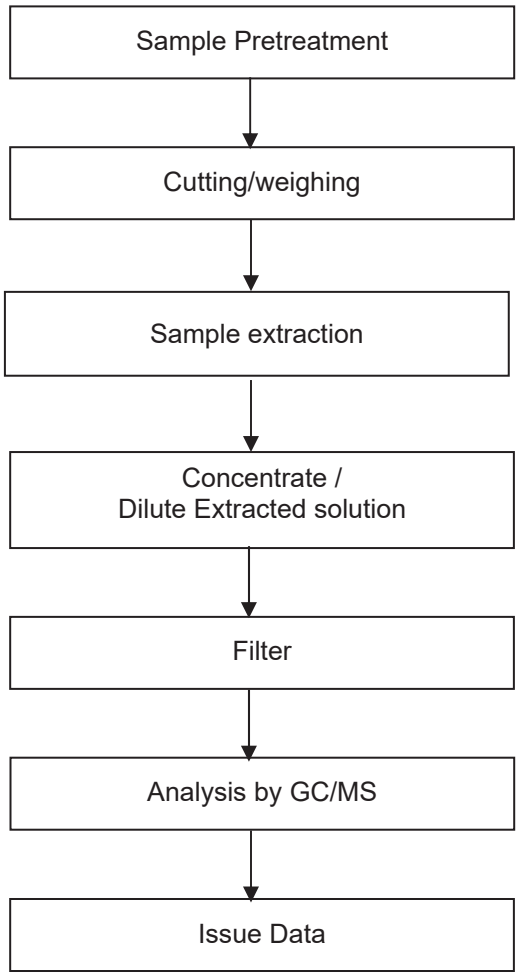


Notes: 1) For metallic material
2) For non-metallic material

Test Report No. : 0114084381d7 001 2019-01-02
Customer : Chi Mei Corporation

Testing procedure:

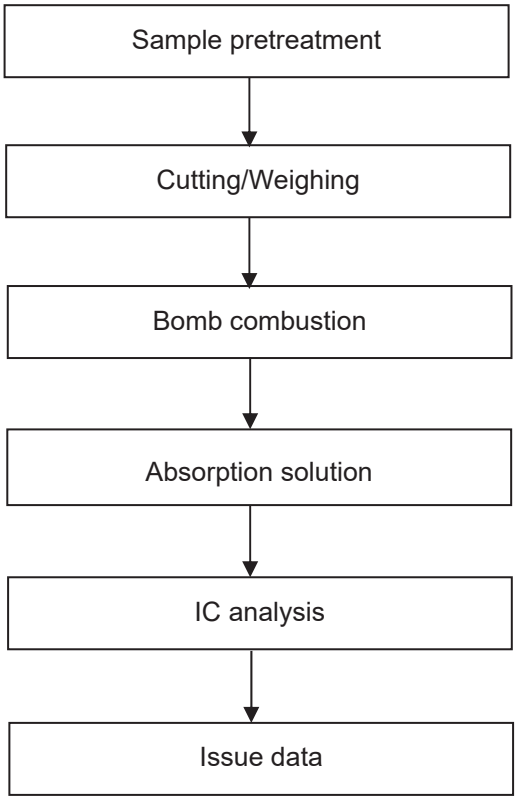
RoHS (PBBs/PBDEs, DEHP/DBP/BBP/DIBP)



Test Report No. : 0114084381d7 001 2019-01-02
Customer : Chi Mei Corporation

Testing procedure:

Halogen



--- End of Test-Report ---

测试报告

No. SHAEC1905253402　　日期: 2019年03月26日　第1页,共6页

宜兴震辰铜业有限公司
宜兴市湖父镇

以下测试之样品是由申请者所提供及确认：黄铜管

SGS工作编号：	SP19-009086 - SH
样品接收日期：	2019年03月22日
测试周期：	2019年03月22日 - 2019年03月26日
测试要求：	根据客户要求测试
测试方法：	请参见下一页
测试结果：	请参见下一页
结论：	基于所送样品进行的测试，镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基已基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的测试结果符合欧盟RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863的限值要求。

通标标准技术服务（上海）有限公司
授权签名

Dora Hu胡敏
批准签署人

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测试结果 :

测试样品描述 :

样品编号	SGS样品ID	描述
SN1	SHA19-052534.001	金色金属

备注 :

(1) 1 mg/kg = 0.0001%

(2) MDL = 方法检测限

(3) ND = 未检出 (< MDL)

(4) "-" = 未规定

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法 : 参考IEC 62321-4:2013+AMD1:2017，IEC 62321-5:2013，IEC 62321-7-1:2015，IEC 62321-6:2015和IEC 62321-8:2017，采用ICP-OES，UV-Vis和GC-MS进行分析。

测试项目	限值	单位	MDL	*001*
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	10
汞 (Hg)	1000	mg/kg	2	ND
六价铬(Cr(VI))▾	-	μg/cm²	0.10	ND
多溴联苯之和(PBBs)	1000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND

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测试项目	限值	单位	MDL	*001*
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1000	mg/kg	50	ND

备注：

(1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
IEC 62321系列等同于 EN 62321系列
http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25

(2) ▼ = a. 当六价铬的浓度高于0.13 μg/cm²时，样品为阳性，即含有六价铬；
b. 当六价铬的浓度为ND(低于0.10 μg/cm²)时，样品为阴性，即未检测到六价铬；
c. 当六价铬的浓度介于0.10 μg/cm²与0.13 μg/cm²之间时，无法直接判定是否检测到六价铬，因不同个体的样品表面差异可能会影响测定结果；
由于未获知样品的存储条件和生产日期，样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。
检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的，仅供内部参考。

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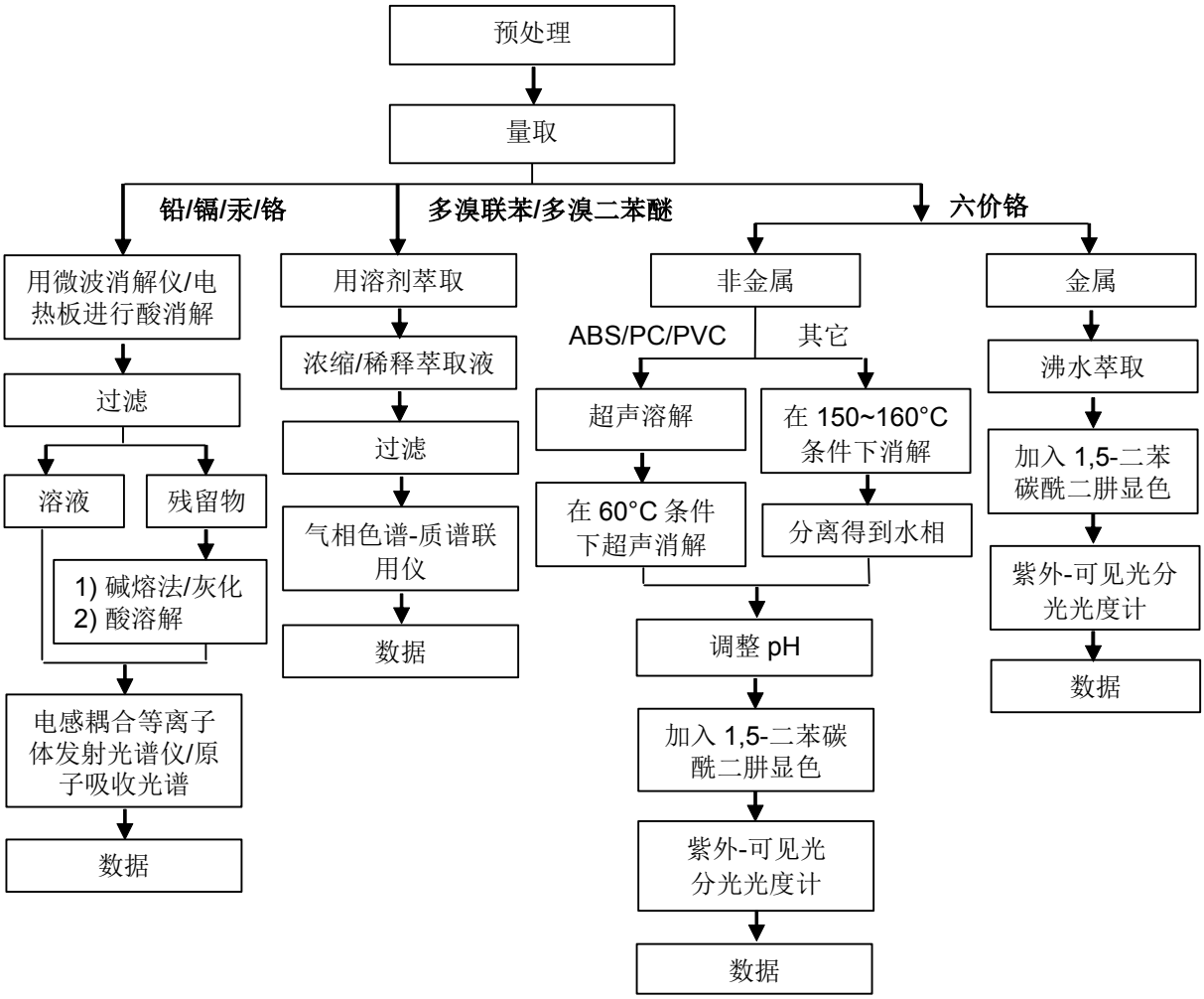
附件

Pb/Cd/Hg/Cr^{6+}/PBBs/PBDEs 测试流程图

1)样品按照下述流程被完全消解（六价铬和多溴联苯/多溴二苯醚测试除外）。



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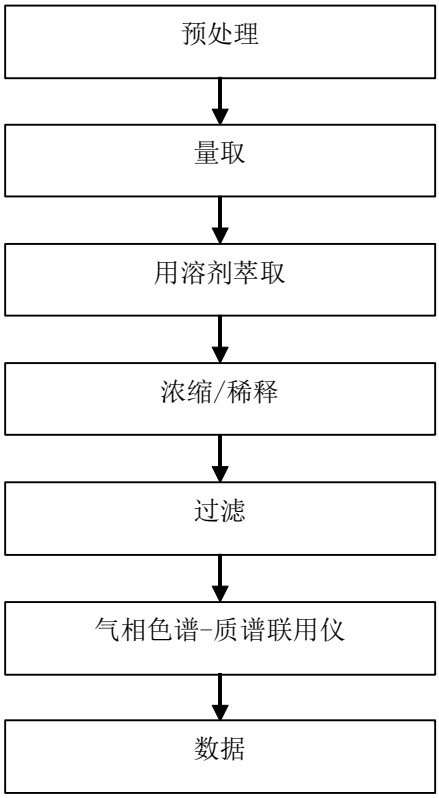
附件

Phthalates 测试流程图



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样品照片:

SHA19-052534.001

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自我宣告書

此致 磐儀科技股份有限公司:

聲明售予磐儀之產品，符合歐盟 RoHS2.0 指令(2011/65/EU 和(EU) 2015/863)十項禁用物質含量標準(如下)。

鎘及其化合物 (Cd)	<100 ppm
鉛及其化合物 (Pb)	<1000 ppm
汞及其化合物 (Hg)	<1000 ppm
六價鉻及其化合物 (Cr^{6+})	<1000 ppm
多溴聯苯 (PBBs)	<1000 ppm
多溴聯苯醚 (PBDEs)	<1000 ppm
鄰苯二甲酸二(2-乙基己基)酯（DEHP）	<1000 ppm
鄰苯二甲酸丁酯苯甲酯（BBP）	<1000 ppm
鄰苯二甲酸二丁酯（DBP）	<1000 ppm
鄰苯二甲酸二異丁酯（DIBP）	<1000 ppm

※銅合金(包含黃銅及磷青銅)中的鉛允許濃度需在 4%以下,此為 ROHS 排外條款。

公司名稱 ： 亞驪企業股份有限公司

公司代表人 ： 陳惠珠

公司代表人職稱 ： 董事長

日期: 2019 年 08 月 06 日

(Company Stamp/公司官印)

ARISTOTLE ENTERPRISES INC.

CERTIFICATE OF COMPLIANCE

Company: ARISTOTLE ENTERPRISES INC.
Address: 8F., No.63, Jiu Guang Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)

Contact person: Frank
Title: Sales
E-mail: frank@aristotle.com.tw
Telephone: 2225-8209#16

This letter is to assure that the above-mentioned product(s) made from the above-mentioned company **meet the requirements** of the REACH-SVHC (Substances of Very High Concern), as specified in the table below according to the Candidate list published by ECHA (European Chemical Agency).

#	Substance Name	CAS #	Concentration Threshold (PPM)	Date of inclusion
1	Anthracene	120-12-7	1000	2008.10.28
2	4,4'- Diaminodiphenylmethane	101-77-9	1000	2008.10.28
3	Dibutyl phthalate	84-74-2	1000	2008.10.28
4	Cobalt dichloride	7646-79-9	1000	2008.10.28
5	Diarsenic pentaoxide	1303-28-2	1000	2008.10.28
6	Diarsenic trioxide	1327-53-3	1000	2008.10.28
7	Sodium dichromate, dihydrate	10588-01-9	1000	2008.10.28
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	1000	2008.10.28
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	1000	2008.10.28
10	Hexabromocyclododecane (HBCDD)	3194-55-6	1000	2008.10.28
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	1000	2008.10.28
12	Bis(tributyltin) oxide,hexabutyldistannoxane	56-35-9	1000	2008.10.28
13	Lead hydrogen arsenate	7784-40-9	1000	2008.10.28
14	Triethyl arsenate	15606-95-8	1000	2008.10.28
15	Benzyl butyl phthalate	85-68-7	1000	2008.10.28
16	2,4-Dinitrotoluene	121-14-2	1000	2010.1.13
17	Anthracene oil	90640-80-5	1000	2010.1.13
18	Anthracene oil, anthracene paste	90640-81-6	1000	2010.1.13
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	1000	2010.1.13

20	Anthracene oil, anthracene paste,distn. lights	91995-17-4	1000	2010.1.13
21	Anthracene oil, anthracene-low	90640-82-7	1000	2010.1.13
22	Diisobutyl phthalate	84-69-5	1000	2010.1.13
23	Lead chromate	7758-97-6	1000	2010.1.13
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	1000	2010.1.13
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	1000	2010.1.13
26	Pitch, coal tar, high temp.	65996-93-2	1000	2010.1.13
27	Tris(2-chloroethyl)phosphate	115-96-8	1000	2010.1.13
28	Acrylamide	79-06-1	1000	2010.3.30
29	Trichloroethylene	79-01-6	1000	2010.6.18
30	Boric acid	10043-35-3	1000	2010.6.18
31	Disodium tetraborate, anhydrous	1330-43-4	1000	2010.6.18
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1	1000	2010.6.18
33	Sodium chromate	7775-11-3	1000	2010.6.18
34	Potassium chromate	7789-00-6	1000	2010.6.18
35	Ammonium dichromate	7789-09-5	1000	2010.6.18
36	Potassium dichromate	7778-50-9	1000	2010.6.18
37	2-Ethoxyethanol	110-80-5	1000	2010.12.15
38	2-Methoxyethanol	109-86-4	1000	2010.12.15
39	Chromic acid	7738-94-5	1000	2010.12.15
40	Chromium trioxide	1333-82-0	1000	2010.12.15
41	Cobalt(II) carbonate	513-79-1	1000	2010.12.15
42	Cobalt(II) diacetate	71-48-7	1000	2010.12.15
43	Cobalt(II) dinitrate	10141-05-6	1000	2010.12.15
44	Cobalt(II) sulphate	10124-43-3	1000	2010.12.15
45	1,2,3-Trichloropropane	96-18-4	1000	2011.6.20
46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	1000	2011.6.20
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	1000	2011.6.20
48	1-Methyl-2-pyrrolidone	872-50-4	1000	2011.6.20
49	2-Ethoxyethyl acetate	111-15-9	1000	2011.6.20
50	Hydrazine	302-01-2 / 7803-57-8	1000	2011.6.20
51	Strontium chromate	7789-06-2	1000	2011.6.20
52	Dichromium tris(chromate)	24613-89-6	1000	2011.12.19
53	Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9	1000	2011.12.19
54	Pentazinc chromate octahydroxide	49663-84-5	1000	2011.12.19
55	Aluminosilicate Refractory Ceramic Fibres (RCF)	-	1000	2011.12.19
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	-	1000	2011.12.19

57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	1000	2011.12.19
58	Bis(2-methoxyethyl) phthalate	117-82-8	1000	2011.12.19
59	2-Methoxyaniline; o-Anisidine	90-04-0	1000	2011.12.19
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	1000	2011.12.19
61	1,2-Dichloroethane	107-06-2	1000	2011.12.19
62	Bis(2-methoxyethyl) ether	111-96-6	1000	2011.12.19
63	Arsenic acid	7778-39-4	1000	2011.12.19
64	Calcium arsenate	7778-44-1	1000	2011.12.19
65	Trilead diarsenate	3687-31-8	1000	2011.12.19
66	N,N-dimethylacetamide (DMAC)	127-19-5	1000	2011.12.19
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	1000	2011.12.19
68	Phenolphthalein	77-09-8	1000	2011.12.19
69	Lead azide Lead diazide	13424-46-9	1000	2011.12.19
70	Lead styphnate	15245-44-0	1000	2011.12.19
71	Lead dipicrate	6477-64-1	1000	2011.12.19
72	α,α.Bis[4.(dimethylamino)phenyl].4 (phenylamino)naphthalene.1.methanol (C.I. Solvent Blue 4) *[with ≥ 0.1% of Michler's ketone (EC No. 202.027.5) or Michler's base (EC No. 202.959.2)]*	6786-83-0	1000	2012.6.18
73	N,N,N',N'.tetramethyl.4,4'.methylenedianiline (Michler's base)	101-61-1	1000	2012.6.18
74	1,3,5.tris[(2S and 2R).2,3.epoxypropyl].1,3,5.triazine.2,4,6.(1H,3H,5H).trione (β.TGIC)	59653-74-6	1000	2012.6.18
75	Diboron trioxide	1303-86-2	1000	2012.6.18
76	1,2.bis(2.methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	1000	2012.6.18
77	4,4'.bis(dimethylamino).4''.(methylamino)trityl alcohol *[with ≥ 0.1% of Michler's ketone (EC No. 202.027.5) or Michler's base (EC No. 202.959.2)]*	561-41-1	1000	2012.6.18
78	Lead(II) bis(methanesulfonate)	17570-76-2	1000	2012.6.18
79	Formamide	75-12-7	1000	2012.6.18
80	[4.[4,4'.bis(dimethylamino) benzhydrylidene]cyclohexa.2,5.dien.1.ylidene]dimethyl ammonium chloride (C.I. Basic Violet 3) *[with ≥ 0.1% of Michler's ketone (EC No. 202.027.5) or Michler's base (EC No. 202.959.2)]*	548-62-9	1000	2012.6.18
81	1,2.dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	1000	2012.6.18
82	[4.[[4.anilino.1.naphthyl][4.(dimethylamino)phenyl]methylene]cyclohexa.2,5.dien.1.ylidene] dimethylammonium chloride (C.I. Basic Blue 26) *[with ≥*	2580-56-5	1000	2012.6.18

	0.1% of Michler's ketone (EC No. 202.027.5) or Michler's base (EC No. 202.959.2)]			
83	1,3,5.Tris(oxiran.2.ylmethyl).1,3,5.triazinane.2,4,6.trione (TGIC)	2451-62-9	1000	2012.6.18
84	4,4'.bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	1000	2012.6.18
85	Pyrochlore, antimony lead yellow	8012-00-8	1000	2012.12.19
86	6-methoxy-m-toluidine (p-cresidine)	120-71-8	1000	2012.12.19
87	Henicosafluoroundecanoic acid	2058-94-8	1000	2012.12.19
88	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	1000	2012.12.19
89	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3]	85-42-7, 13149-00-3, 14166-21-3	1000	2012.12.19
90	Dibutyltin dichloride (DBTC)	683-18-1	1000	2012.12.19
91	Lead bis(tetrafluoroborate)	13814-96-5	1000	2012.12.19
92	Lead dinitrate	10099-74-8	1000	2012.12.19
93	Silicic acid, lead salt	11120-22-2	1000	2012.12.19
94	4-Aminoazobenzene	60-09-3	1000	2012.12.19
95	Lead titanium zirconium oxide	12626-81-2	1000	2012.12.19
96	Lead monoxide (lead oxide)	1317-36-8	1000	2012.12.19
97	o-Toluidine	95-53-4	1000	2012.12.19
98	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	1000	2012.12.19
99	Silicic acid (H2Si2O5), barium salt (1:1), lead-doped	68784-75-8	1000	2012.12.19
100	Trilead bis(carbonate)dihydroxide	1319-46-6	1000	2012.12.19
101	Furan	110-00-9	1000	2012.12.19
102	N,N-dimethylformamide	68-12-2	1000	2012.12.19
103	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	1000	2012.12.19
104	4-Nonylphenol, branched and linear	-	1000	2012.12.19
105	4,4'-methylenedi-o-toluidine	838-88-0	1000	2012.12.19
106	Diethyl sulphate	64-67-5	1000	2012.12.19
107	Dimethyl sulphate	77-78-1	1000	2012.12.19
108	Lead oxide sulfate	12036-76-9	1000	2012.12.19
109	Lead titanium trioxide	12060-00-3	1000	2012.12.19
110	Acetic acid, lead salt, basic	51404-69-4	1000	2012.12.19
111	[Phthalato(2-)]dioxotrilead	69011-06-9	1000	2012.12.19
112	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	1000	2012.12.19
113	N-methylacetamide	79-16-3	1000	2012.12.19

114	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	1000	2012.12.19
115	1,2-Diethoxyethane	629-14-1	1000	2012.12.19
116	Tetralead trioxide sulphate	12202-17-4	1000	2012.12.19
117	N-pentyl-isopentylphthalate	776297-69-9	1000	2012.12.19
118	Dioxobis(stearato)trilead	12578-12-0	1000	2012.12.19
119	Tetraethyllead	78-00-2	1000	2012.12.19
120	Pentalead tetraoxide sulphate	12065-90-6	1000	2012.12.19
121	Pentacosafluorotridecanoic acid	72629-94-8	1000	2012.12.19
122	Tricosafluorododecanoic acid	307-55-1	1000	2012.12.19
123	Heptacosafluorotetradecanoic acid	376-06-7	1000	2012.12.19
124	1-bromopropane (n-propyl bromide)	106-94-5	1000	2012.12.19
125	Methoxyacetic acid	625-45-6	1000	2012.12.19
126	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	1000	2012.12.19
127	Methyloxirane (Propylene oxide)	75-56-9	1000	2012.12.19
128	Trilead dioxide phosphonate	12141-20-7	1000	2012.12.19
129	o-aminoazotoluene	97-56-3	1000	2012.12.19
130	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	1000	2012.12.19
131	4,4'-oxydianiline and its salts	101-80-4	1000	2012.12.19
132	Orange lead (lead tetroxide)	1314-41-6	1000	2012.12.19
133	Biphenyl-4-ylamine	92-67-1	1000	2012.12.19
134	Diisopentylphthalate	605-50-5	1000	2012.12.19
135	Fatty acids, C16-18, lead salts	91031-62-8	1000	2012.12.19
136	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	1000	2012.12.19
137	Sulfurous acid, lead salt, dibasic	62229-08-7	1000	2012.12.19
138	Lead cyanamidate	20837-86-9	1000	2012.12.19
139	Cadmium	7440-43-9	1000	2013.6.20
140	Cadmium oxide	1306-19-0	1000	2013.6.20
141	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	1000	2013.6.20
142	Pentadecafluorooctanoic acid (PFOA)	335-67-1	1000	2013.6.20
143	Dipentyl phthalate (DPP)	131-18-0	1000	2013.6.20
144	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-	1000	2013.6.20
145	Cadmium sulphide	1306-23-6	1000	2013.12.16
146	Dihexyl phthalate	84-75-3	1000	2013.12.16

147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	1000	2013.12.16
148	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	1000	2013.12.16
149	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	1000	2013.12.16
150	Lead di(acetate)	301-04-2	1000	2013.12.16
151	Trixylyl phosphate	25155-23-1	1000	2013.12.16
152	Cadmium chloride	10108-64-2	1000	2014.06.16
153	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	1000	2014.06.16
154	Sodium peroxometaborate	7632-04-4	1000	2014.06.16
155	Sodium perborate; perboric acid, sodium salt	-	1000	2014.06.16
156	Cadmium fluoride	7790-79-6	1000	2014.12.17
157	Cadmium sulphate	10124-36-4, 31119-53-6	1000	2014.12.17
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol(UV-320)	3846-71-7	1000	2014.12.17
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	1000	2014.12.17
160	2-ethylhexyl10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE)	15571-58-1	1000	2014.12.17
161	Reaction mass of 2-ethylhexyl10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxo	-	1000	2014.12.17
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5 68648-93-1	1000	2015.6.15
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	-	1000	2015.6.15
164	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	1000	2015.12.17
165	Nitrobenzene	98-95-3	1000	2015.12.17
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	1000	2015.12.17
167	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	1000	2015.12.17
168	1,3-propanesultone	1120-71-4	1000	2015.12.17
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	1000	2016.06.20
170	4,4’-isopropylidenediphenol (bisphenol A)	80-05-7	1000	2016.12.19
171	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the		1000	2016.12.19

	individual isomers or a combination thereof]			
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	1000	2016.12.19
173	p-(1,1-dimethylpropyl)phenol	201-280-9	1000	2017.1.12
174	Perfluorohexane-1-sulphonic acid and its salts	-	1000	2017.7.7
175	Chrysene	218-01-9	1000	2018.1.15
176	Benz[a]anthracene	56-55-3	1000	2018.1.15
177	Cadmium nitrate	10325-94-7	1000	2018.1.15
178	Cadmium hydroxide	21041-95-2	1000	2018.1.15
179	Cadmium carbonate	513-78-0	1000	2018.1.15
180	Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	13560-89-9 135821-74-8 135821-03-3	1000	2018.1.15
181	Reaction products of 1,3,4-thiadiazolidine- 2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	1000	2018.1.15
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride; TMA)	552-30-7	1000	2018.6.27
183	Benzo[ghi]perylene	191-24-2	1000	2018.6.27
184	Decamethylcyclopentasiloxane (D5)	541-02-6	1000	2018.6.27
185	Dicyclohexyl phthalate (DCHP)	84-61-7	1000	2018.6.27
186	Disodium octaborate	12008-41-2	1000	2018.6.27
187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	1000	2018.6.27
188	Ethylenediamine (EDA)	107-15-3	1000	2018.6.27
189	Lead	7439-92-1	1000	2018.6.27
190	Octamethylcyclotetrasiloxane (D4)	556-67-2	1000	2018.6.27
191	Terphenyl, hydrogenated	61788-32-7	1000	2018.6.27
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	1000	2019.01.15
193	Benzo[k]fluoranthene	207-08-9	1000	2019.01.15
194	Fluoranthene	206-44-0	1000	2019.01.15
195	Phenanthrene	85-01-8	1000	2019.01.15
196	Pyrene	129-00-0	1000	2019.01.15
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]hepta n-2-one	15087-24-8	1000	2019.01.15

Signature: _____ Date: 2019.08.06

但目前只能符合 SVHC 共 196 項，

其中一項因為 RF Connector 主體材質為銅，

成份中含有鉛(Lead)， 無法符合 CAS. 7439-92-1。

寄件者: Aristotle-Frank [frank@aristotle.com.tw]
寄件日期: 2019年7月8日星期一 下午 4:32
收件者: lynn[邱雅伶]
副本: 'Aristotle-Ivy'; jeffchen[陳冠宇]; lusia[潘瑋君]; brianjiang[江旻憲]; jstsai[蔡建信]; sonia[許慧苓]
主旨: RE: IOT-800N 4款天線承認書，麻煩請協助---再新增一款GPS ANTENNA

Hi Lynn,

不好意思,這三款都為天線成品,不會有單獨的connector圖面,請悉知,謝謝

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From: lynn[邱雅伶] <lynn@arbor.com.tw>
Sent: Monday, July 8, 2019 4:21 PM
To: Aristotle-Frank <frank@aristotle.com.tw>
Cc: Aristotle-Ivy <sales@aristotle.com.tw>; jeffchen[陳冠宇] <jeffchen@arbor.com.tw>; lusia[潘瑋君] <lusia@arbor.com.tw>; brianjiang[江旻憲] <brianjiang@arbor.com.tw>; jstsai[蔡建信] <jstsai@arbor.com.tw>; sonia[許慧苓] <sonia@arbor.com.tw>
Subject: RE: IOT-800N 4款天線承認書，麻煩請協助---再新增一款GPS ANTENNA

Dear Frank:

收到貴司提供承認書，請問3452000000170P、3452000000180P、3452292000010P
可以提供相關CONNECTOR圖面，如下敘述，若有問題煩請告知，謝謝。

1.3452000000170P(RFA-25-C2M2-U-M70)
1-1.請協助提供RP SMA PLUG CONNECTOR圖面。

2.3452000000180P(RFA-LTE-C55-U-B70-5)
2-1. 請協助提供SMA PLUG CONNECTOR圖面。

3. 3452292000010P(RFA-01-GPS-29-1.6M)
3-1. 請協助提供SMA PLUG CONNECTOR圖面。

Best Regards

ARBOR Technology Corp.
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From: Aristotle-Frank [mailto:frank@aristotle.com.tw]
Sent: Monday, July 01, 2019 9:08 PM
To: sonia[許慧苓]
Cc: 'Aristotle-Ivy'; jeffchen[陳冠宇]; lusia[潘瑋君]; lynn[邱雅伶]; brianjiang[江旻憲]; jstsai[蔡建信]
Subject: RE: IOT-800N 4款天線承認書，麻煩請協助---再新增一款GPS ANTENNA

Hi Sonia,

煩請下載承認書,謝謝
http://ftp.aristotle.com.tw/C391/Approval--RFA-01-GPS-29-1.6M.rar
http://ftp.aristotle.com.tw/C391/Approval--RFA-25-C2M2-U-M70.rar
http://ftp.aristotle.com.tw/C391/Approval--RFA-LTE-C55-U-B70-5.rar

Aristotle
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From: Sonia <sonia@arbor.com.tw>
Sent: Friday, June 14, 2019 2:01 PM
To: Aristotle-Frank <frank@aristotle.com.tw>
Cc: Aristotle-Ivy <sales@aristotle.com.tw>; jeffchen[陳冠宇] <jeffchen@arbor.com.tw>; lusia[潘瑋君]

下午 01:58

你好~

可以問一下我有收到3452000000170P(RFA-25-C2M2-U-M70)承認書

其中RP SMA PLUG CONNECTOR這個會有相關圖面嗎?

下午 02:25

還有3452000000180P(RFA-LTE-C55-U-B70-5)
其中SMA PLUG CONNECTOR這個會有相關圖面嗎?

下午 04:06

需要寄信給你嗎?

Aristotle-Frank，下午 04:07

好的,麻煩您,謝謝

下午 04:36

請問有相關connector原廠料號嗎?

未讀訊息

Aristotle-Frank，下午 04:47

沒有,我們自家車的