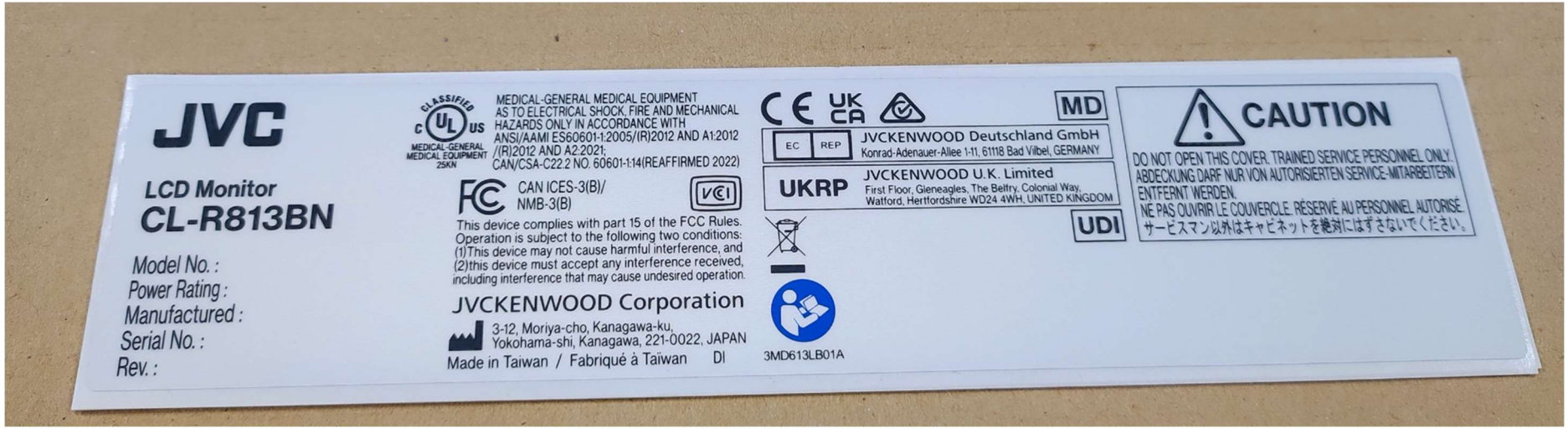


設計驗證
工程課
2024 -10- 30
發行
宏馨科技開發股份有限公司

承　　認　　書

客戶名稱：鈺緯科技開發股份有限公司

料　　號：3MD613LB01A(M3423)
DF-4324-0007

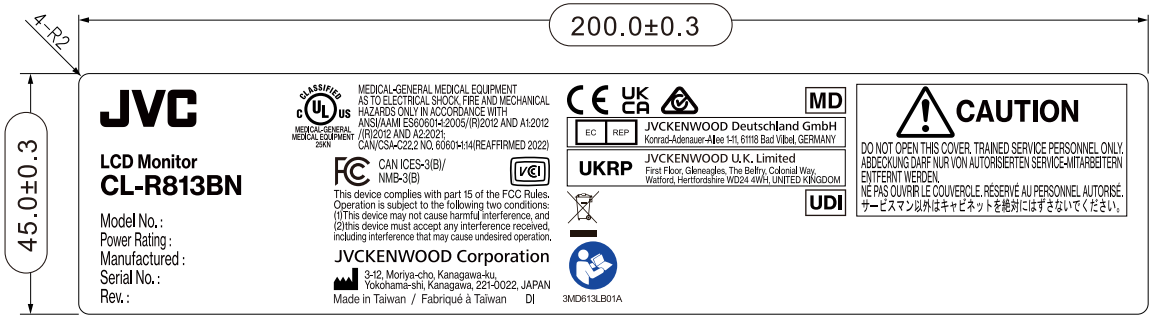
日　　期：2024-10-17

客戶承認單位用印	
主　管	擔當者
	設計驗證 工程課 2024-10-30 發行 鈺緯科技開發股份有限公司

承製廠商	主　管	業　務	制　作
東風印刷企業有限公司	周淑芳	王鈴雅	王鈴雅

東風印刷企業有限公司
DONG FENG PRINT CO.,LTD

REV.	DATE	DESCRIPTION	BY	APVD
0	20240517	change UL規格Add update model label	killy	
1	20241024	Manufacturer changes, add all manufacturers' UL file numbers, model numbers and other information changes Notes duplicate data	killy	Laglie



Meet UL second printing standard. Thermal transfer ribbon(*Ricoh #B110CR ribbon)

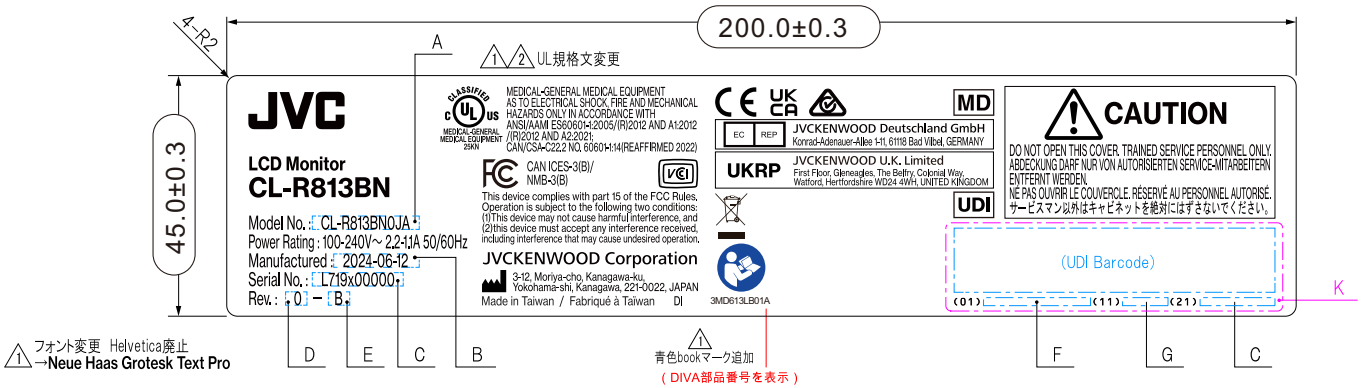
Manufacturer	Type	UL file number	Product category CCN
MING MEI PRINTING CO LTD	MM-001 , MM-003	MH26040 , MH46413	PGDQ2 , PGJI2
WAI GHA INDUSTRIAL CO LTD	WG-PCGE-MP	MH28926	PGDQ2
WAI GHA INDUSTRIAL CO LTD	WG-7818-MS	MH25635	PGJI2
3M CHINA CO LTD	57817, 57817XX	MH45276	PGJI2
3M COMPANY	3M Brand 7818	MH16411	PGJI2
DONG FENG PRINTING ENTERPRISE CO LTD	DF-A01, XF-A01	MH26473	PGJI2

Notes:
1.Material: Electroplating Matt Silver PET Film
Acrylic Adhesive
White Art Paper Release Liner
2.Coated: Polyester film transparent label.
3.Color: background: silver matt.Character: Black.
4.Material need to meet UL requirements.
5.Meet UL second printing standard.
*Anti Scratch Protective tape.
6.Material + Adhesive Thickness = 0.1mm±0.05mm
7.Customer provide Serial No.
8.Color: PANTONE 2945C Blue
9.顏色、尺寸參照承認樣品
10.檢驗規範文件編號：QWI-016

設計驗證
工程課
2024-10-30
發行
鈺鏞科技開發股份有限公司

PM / SALES	THIRD ANGLE PROJECTION	UNITS: mm	SCALE: 1/1	SHEET: 1/1	MODEL NO.: CL-R813
		MATERIAL: SEE NOTES		TREATMENT: SEE NOTES	
ENG.DEPT	SAFETY	DSGD by Killy	2024/10/24	PART NAME:MODEL LABEL	
		APVD by Laglie	2024/10/30	PART NO.:3MD613LB01A	VER. 1
		APVD NO.: (M3423)	FILE NAME: CL-R813.cdr	DIVA Laboratories, Ltd.	

REV.	DATE	DESCRIPTION	BY	APVD
0	20240517	change UL規格Add update model label	killy	



1. A : Modelを表示する
2. B : 製造日付とし、YYYY-MM-DDの形式で表示する
   例）2022年06月12日→ 2022-06-12
3. C : Serial No.を表示する。→ L719A00001～連番
4. D : Rev.①（数字表記）0～ 別途指示による
5. E : Rev.②（英字表記）A～ 別途指示による
6. F : POS codeを表示する（OCR文字）
7. G : 製造日付とし、yymmddで表示する
   例）2022年06月12日→ 220612（OCR文字）
8.
9. A～J 文字高さは 1.5mm とする。
10. K : (UDI Barcode)は、シンボルGS1-128 で、F,G,Cを表示する。
11. L : (POS Barcode)は、シンボルEANで、Jを表示する。
12. ロゴ・文字など詳細はaiデータによる。
13. 印刷の欠け・かすれ、ラミネートの気泡・シワ等無きこと。

14. Material need to meet UL requirements.
    Meet UL second printing standard.
    Only use PGJI2 printed label : MING MEI, type : MM-001
    Anti Scratch Protective tape. Richo #B110CR ribbon.
    Material + adhesive thickness = 0.1mm±0.05mm

A: Model	CL-R813BN0JA	CL-R813BN0UA	CL-R813BN0EA
B: Date	yyyy-mm-dd	yyyy-mm-dd	yyyy-mm-dd
C: Serial No.	L719A#####	L719A#####	L719A#####
F: POS code	04975769021473	00046838002687	04975769021480
G: Date	yymmdd	yymmdd	yymmdd
J: POS code	(none)	(none)	4975769021480
area L	(none)	(none)	EAN
area K	ME Barcode	UDI	UDI
D: Rev	0	0	0
E: Rev	B	B	B

Note:
1. Material: polyester film silver matt label (50#)
   Coated: polyester film transparent label
2. Color: background: silver matt.
   Character: Black
3. Adhesive: acrylic adhesive
4. Material need to meet UL requirements
5. Meet UL second printing standard.
   Only use PGJI2 printed label: MING MEI, type: MM-001
   Anti Scratch Protective tape. Ricoh #B110CR ribbon.
6. Material + adhesive thickness = 0.1mm±0.05mm
7. Customer provide Serial No.
8. ■Color: PANTONE 2945C Blue
9. 顏色、尺寸參照承認樣品
10. 檢驗規範文件編號：QWI-016

設計驗證
工程課
2024-10-30
發行
鈺鐘科技開發股份有限公司

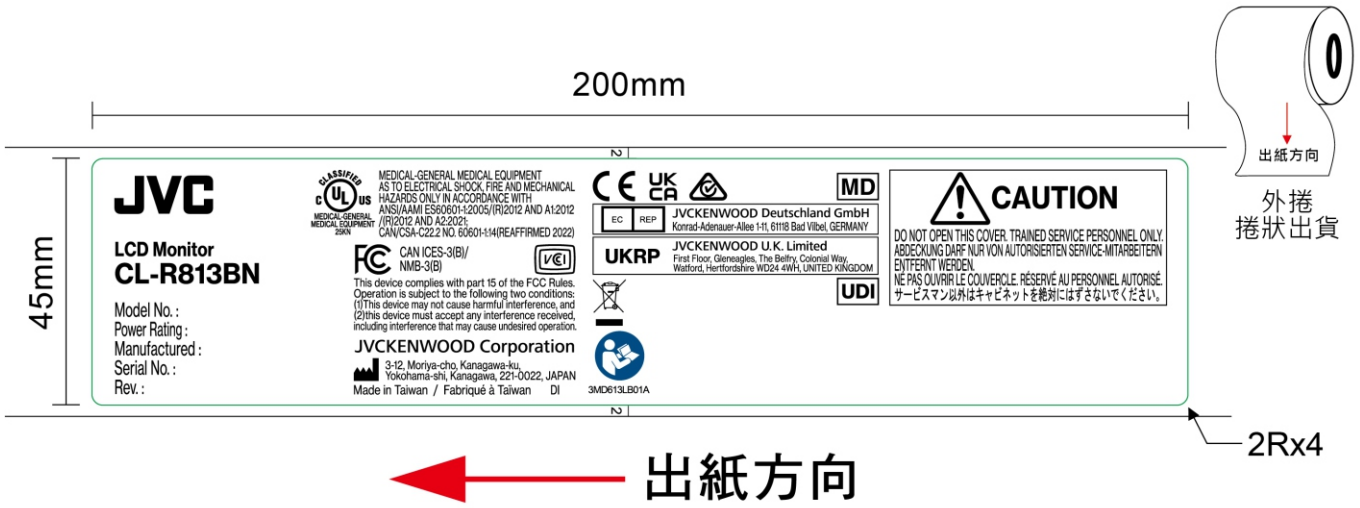
PM / SALES: Shinichi 2024.5.31	THIRD ANGLE PROJECTION	UNITS: mm	SCALE: 1/1	SHEET: 1/1	MODEL NO.: CL-R813BN0JA (JP)
		MATERIAL: SEE NOTES		TREATMENT: SEE NOTES	
ENG.DEPT: Joanne 0606 1835 / NICK 0531 1455	DSGD by: Killy	2024/05/15	PART NAME:MODEL LABEL		
SAFETY: 2024.05.31	APVD by		PART NO.:8MD613LB01A		VER. 0
	APVD NO.:	FILE NAME: CL-R813BN0JA (JP).cdr	DIVA Laboratories, Ltd.		

東風印刷企業有限公司

樣品承認書

客戶編號：DF-4324-0007	送樣次數: 第 1 次
料　　號：3MD613LB01A (M3423)	
品　　名：	

樣　　品：（本樣品如蒙確認,請回函壹份）



規格說明：

1.尺寸：200*45mm(2R*4) 公差:±0.2mm

2.材質：POLYESTER FILM SILVER MATT LABEL#50 +POLYESTER FILM TRANSPARENT LABEL

3.顏色：2色印刷

客戶確認：	業　務：王鈴雅	製　表：王鈴雅

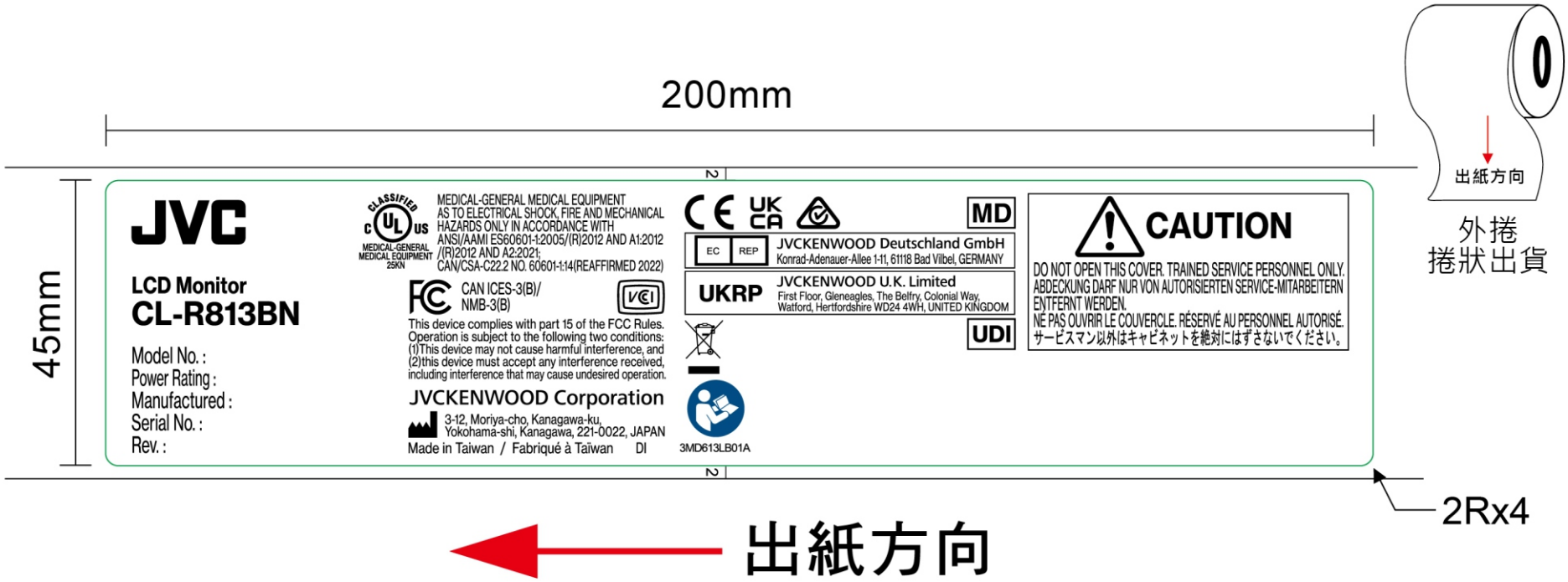
東風印刷企業有限公司
DONGFENG PRINTING ENTERPRISE CO.,LTD.

工程圖面

製圖日期	項次	製圖人員	客戶簽名欄	工程確認	
2024.09.27	01	曾小姐			
變更說明： 新圖發行		版次		採購確認	
		01			

提醒您，客戶圖面確認且回覆給東風後，東風即可製作模具。
若圖面有變更可能會有費用產生，請知悉，謝謝!

1:1



產品尺寸	200x45mm (±0.2)	材質		印刷顏色	裁切方式
綠色線為刀線	2Rx4	1.原材: Polyester film silver	1	黑色	●裁片式
產品編號	DF-4324-0007	matt label(50#)+Polyester film	2	藍色(PANTONE 2945C)	○捲狀單排出貨
客戶料號	3MD613LB01A	transparent label	3		
品　　名	Label	2.膠質:	4		

高冠企業股份有限公司
KK ENTERPRISE CO., LTD.

產品規格表
Specification
制訂日期：2019/04/18

代號 Code	TLSM50	品　　名 Article Name	消銀龍商標紙 Electroplating Matt Silver PET Film Label

結構 Construction			
	Face Material	→消銀特多龍	Electroplating Matt Silver PET Film
	Adhesive	→壓克力膠	Acrylic Adhesive
	Liner	→白色銅版離型紙	White Art Paper Release Liner

項目 Item		單位 Unit	數據 Data	測試方法 Test Method
面材 Face Material	厚　度 Thickness	mm	0.050±0.010	ASTM D-1000
	基　重 Basis Weight	g/m^2	70±5	
黏膠 Adhesive	上膠厚度 Coat Thickness	mm	0.026±0.005	ASTM D-1000
	初期力 Initial Tack	cm	18 ↓	PSTC-6
	黏著力 Peel Adhesion	kgf/25mm	0.8 ↑	PSTC-1
	剝離力 Release Force	gf/25mm	6~20	PSTC-8
	保持力 Holding Power	hour/20×20mm/kgf	8 ↑	PSTC-7
底紙 Liner	厚　度 Thickness	mm	0.143±0.008	ASTM D-1000
	基　重 Basis Weight	g/m^2	150±8	
UL 認證溫度 UL Rating Temperature		℃	Min.:-20 / Max:125	UL 969
使用溫度 Service Temperature		℃	-20~+150	
最適貼標溫度 Ideal Application Temperature		℃	+10~+40	
保存期限 Storage life		months	12	
保存環境 Storage Condition		儲存在乾燥處，避免陽光直射及遠離所有的熱源。理想的條件為23℃和 50%的相對濕度。 Store in a dry location out of direct sunlight and away from all sources of heat. Ideal conditions are 23℃ and 50% relative humidity.		
備註 Remark		UL File MH13600		

以上技術資料為本公司採用公認可靠之檢驗方法，經長期檢驗所得之平均數據，不做產品驗收之用。我司產品的品質管控係依據產品規格書上所敘述之產品規範，在實際應用時可能會有所差異。請客戶使用前務必先行了解，產品貼著目的與使用相關要求之條件，進行確認無虞後再使用。除非雙方針對特殊使用條件，另外訂立書面契約，否則產品經加工後為複合材料，我司不予承認相關額外損失費用。
The above mentioned technical data is based on long-term test by KK and should be for reference only, not for inspection purpose. KK's product quality control is in accordance with the specifications described in the product specification.
Before using this product, you must evaluate it and determine if it is suitable for your intended application. For specific applications have to be record by written document and agreed on both sides, otherwise KK will not accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

Test Report
- Products

TÜVRheinland®
Precisely Right.

Report No. 報告號碼:	48224188c18 001
Client 客戶:	KK Enterprise Co., Ltd./ 高冠企業股份有限公司 No. 1&2, Tzu Chiang 3rd Road, Nantou City 540, Taiwan, R.O.C./ 台灣 540 南投市南崗工業區自強三路1, 2號
Test item(s) 測試樣品:	Adhesive/黏著劑, Plastic/塑膠
Identification/Model No(s): 樣品描述/規格:	ELECTROPLATING MATT SILVER POLYESTER FILM LABEL(消銀色特多龍(聚酯膜)商標紙) (Model no refer to page 2)
Sample obtaining method: 樣品獲取方式:	Sending by customer
Condition at delivery: 樣品接收狀態:	Test item complete and undamaged.
Sample receiving date: 收樣日期:	2023-09-23
Testing period: 測試週期:	2023-09-23 – 2023-10-16
Place of testing: 測試地點:	TÜV Rheinland Hong Kong Ltd., TÜV Rheinland (Shanghai) Co. Ltd.

Test specification 測試要求:	***Test result 測試結果:***
Testing according to customer's specification for the following parameters:	
RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment Directive (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) / 依據電機電子設備限用有害物質指令(RoHS 2011/65/EU) 附錄II及其修正指令(EU) 2015/863: 鉛、鎘、汞、六價鉻、多溴聯苯、多溴二苯醚、鄰苯二甲酸苯基丁酯、鄰苯二甲酸二丁酯、鄰苯二甲酸二(2-乙基己基)酯、鄰苯二甲酸二異丁酯 之總含量	Pass/合格
Halogen/鹵素 (Cl/氯, Br/溴) according to IEC 61249-2-21:2003	Pass/合格
Phthalates/鄰苯二甲酸酯類(DINP/DIDP/DNOP/DnHP/DMEP/DnPP/DMP/DEP/DCHP/ DIPP/DIHP/DHNUP/NIPP/BADP/DNP), Halogen/鹵素(F/氟, I/碘), Perfluorooctane Sulfonate (PFOS)/全氟辛烷磺酸, Perfluorooctanoic Acid (PFOA)/全氟辛酸, Polyvinyl chloride (PVC)/聚氯乙烯, Tetrabromobisphenol-A (TBBP-A)/四溴雙酚-A, Hexabromocyclododecane (HBCDD)/六溴環十二烷, Polycyclic Aromatic Hydrocarbons (PAHs)/多環芳香烴化合物, Antimony (Sb)/銻, Beryllium (Be)/鈹, Antimony(III) oxide/三氧化二銻	Refer to result page *參照測試報告*

Other information: Refers to TÜV test report no.: 48224188a2 001, 48224188a3 001, 48224188a29 001
其他信息:

For and on behalf of
TÜV Rheinland Taiwan Ltd.

2023-10-16
Date *日期*

Arthur Cheng/Project Manager
Name/Position *姓名/職位*

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.
This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts.
This test report does not entitle to carry any safety mark on this or similar products.
"Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report..
樣品信息由客戶提供。測試結果根據所做測試的種類和範圍而得出。本測試報告僅對來樣負責。未經本測試中心許可，測試報告不得部分複製。不能根據此報告在上述產品或類似產品上使用任何安全標誌。本測試報告中，描述符合性聲明所應用的判定規則發佈在我司官網 https://www.tuv.com/landingpage/en/qm-gcn/。

Model No(s) / 品名型號:

BTLSM50, BTLSM50E, BTLSMB, BTLSMI150E, DL26, E-HMTLSM50, E-HMTLSM50+100, E-HMTLSM75, E-HMTLSMI, EHMTLSMI50, E-HMTLSMI50+100, E-HTLSM(BL), E-HTLSM100#8, E-HTLSM50#1R, E-HTLSM50#8, E-HTLSM50(BL), EHTLSM50+100, E-HTLSM75, E-HTLSM75(BL), E-HTLSMI#1R, E-HTLSMI(BL), E-HTLSMI50#1R, E-HTLSMI50(BL), EHTLSMI50+100, E-HTLSMI50+100E, TLSMI75, E-HTLSMI50+RP, E-HTLSMI75(BL), E-HTLSMI75(I), E-HTLSMIJ, EHTLSMIJ(BL), E-HTLSMIJ50+100, E-MTLSM, E-MTLSM50, E-MTLSM75, E-MTLSMI, E-MTLSMI50, E-MTLSMI50+100, ERTLSM, E-TLSM100#1R, E-TLSM50, E-TLSM50+100, E-TLSM50+50, E-TLSM75, E-TLSM75#9H, E-TLSM75E, E-TLSMI, E-TLSMI#6R, E-TLSMI#8, E-TLSMI#9H, E-TLSMI1, E-TLSMI50#1R, E-TLSMI50+100, E-TLSMI50+100E, ETLSMI50+50, E-TLSMI50E, E-TLSMI50UL, E-TLSMI75, E-TTLSMI+TLT, E-TTLSMI+TLTJ, HITLSMI, HMTLSMI100, HMTLSMI50, HMTLSMI75, HTLD-3M, HTLSM, HTLSM100, HTLSM100#9, HTLSM50, HTLSM50#17, HTLSM50#2R, HTLSM50#34, HTLSM50#9, HTLSM5008#2, HTLSM50BL#2, HTLSM50BL#27, HTLSM75, HTLSM75#34, HTLSM75BL#2, HTLSM75BL#27, HTLSMA50#34, HTLSMBBL, HTLSMI, HTLSMI(A), HTLSMI100, HTLSMI150#21, HTLSMI4101J, HTLSMI50, HTLSMI50#1R2, HTLSMI50#34, HTLSMI50#9L, HTLSMI50(A), HTLSMI50A, HTLSMI50J, HTLSMI75, HTLSMI75#34, HTLSMI95, HTLSMIJ, HTLSMIJ50, HTLSMIJB50, HTLVSM25, HZTLSMI50, HZTLSMI50E, L623, RHTLSM50BL#9, RHTLSM75BL#9, HMTLSM, HMTLSM100, HMTLSM50, HMTLSM50#1R, HMTLSM75, HMTLSM75#1R, HMTLSMI, HMTLSMI#1R, E-MHTLSMI50, HMTLSMI100, HMTLSMI50, HMTLSMI50#1R, HTLSM, HTLSM50#1R, HTLSM50#55, HTLSM50(BL), VL12, HTLSM50BL, HTLSM75, HTLSM75#1R, HTLSM75(BL), HTLSM75BL, HTLSMB, HTLSMI, HTLSMI(A), HTLSMI(BL), HTLSMI100, HTLSMI150H, HTLSMI50#1R, HTLSMI50#1R2, HTLSMI50#1RA, HTLSMI50(A), HTLSMI50(A1), HTLSMI50(BL), HTLSMI50H, VL08, HTLSMI50J#1RA, HTLSMI50J#9, HTLSMI75, HTLSMIBL, HTLSMIHE, HTLSMIJ50, HTLSMIJ50#34, HTLSMIJ50#9, HTLSMIJ50(BL), HTLVSMI, MTLSM, MTLSM100, MTLSM50, MTLSM75, MTLSMI, MTLSMI100, MTLSMI50, MTLSMI75, TLSM50, TLSMI+100, TLSMI1, TLSMI150, TLSMI50+125, TLSMI50+TLT100, TLSMI50H, TTLSMI50, WTLVS25J, TLD-3M, TLSM, TLSM+150, TLSM100, TLSM150, TLSM50, TLSM50#9, TLSM75, TLSMB, TLSMB50, TLSMI, TLSMI#1, TLSMI+150, TLSMI02#1, TLSMI03#17, TLSMI1, TLSMI1#9, TLSMI12#17, TLSMI150, TLSMI1A, TLSMI50, TLSMI50+100, TLSMIHE, TLVSM25, TTLSMI50, E-MHTLSMIJ50, VTLSM#2R, VTLSMI01, VTLSMI1, VTLSMI50JE#9, X1-HTLSM50, HMTLSMI50, ZTLSMI, TLSMI102, E-HTLSMI+RP, E-HTLSM38, E-HTLSMI50#1R, E-MTLSMI50+50, E-HMTLSMI100, E-TLSMI#9H, E-TLSMI1J, E-HTLSMI50#1R, E-MHTLSMI75, E-MHTLSM100, KSPTLSMI50, E-TLSMI#9GY, E-TLSMI#9HB, E-HTLSMI50#3R, HTLSMIJ, E-MHTLSM50, HTLSMB, HTLSMB50(EB), HTLSMB75, HTLSMB100, HTLSMI75, HTLSMI100

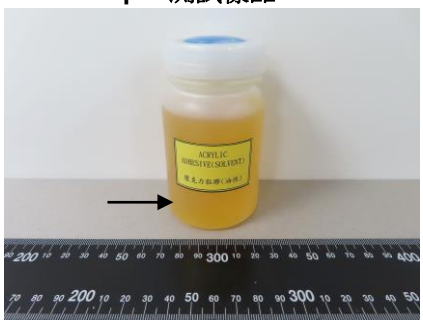
* All the above item no. are the same material/color/manufacturing process according to client's declaration dated on 2023-09-27.

Material list/材料清單

Item: ELECTROPLATING MATT SILVER POLYESTER FILM LABEL(消銀色特多龍(聚酯膜)商標紙)

Material No./ 材料編號	Material/材質	Color/顏色	Location/位置
1	Adhesive/黏著劑	Yellow/黃色	TCL230923-02
2	Adhesive/黏著劑	Transparent/透明	TCL230923-03
3	Plastic/塑膠	Silver/銀色	TCL230923-29

Test Sample/測試樣品



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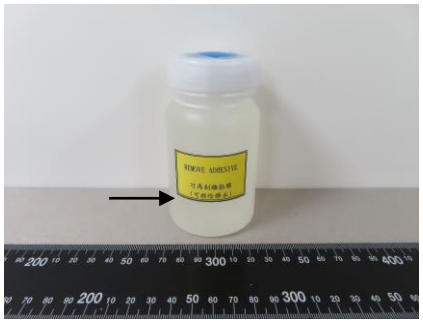
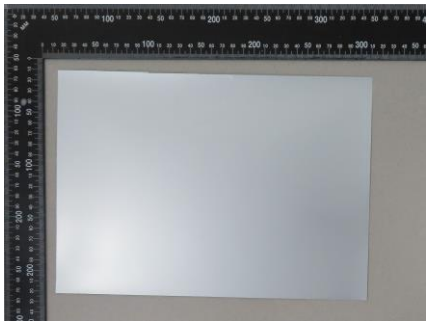


2



3

Material No./材料號碼				Mat.1	Mat.2	Mat.3
Test Item/測試項目	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Cadmium (Cd) / 鎘	with ref. to IEC 62321-4:2013 / IEC 62321-5:2013	mg/kg	2	< RL	< RL	< RL
Lead (Pb) / 鉛		mg/kg	2	< RL	< RL	< RL
Mercury (Hg) / 汞		mg/kg	2	< RL	< RL	< RL
Chromium VI (Cr VI) / 六價鉻	with ref. to IEC 62321-7-2:2017	mg/kg	8	< RL	< RL	< RL
Sum of Polybrominated biphenyls (PBBs) / 多溴聯苯	with ref. to IEC 62321-6:2015	mg/kg	-	< RL	< RL	< RL
Monobromobiphenyl		mg/kg	5	< RL	< RL	< RL
Dibromobiphenyl		mg/kg	5	< RL	< RL	< RL
Tribromobiphenyl		mg/kg	5	< RL	< RL	< RL
Tetrabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Pentabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Hexabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Heptabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Octabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Nonabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Decabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Sum of Polybrominated diphenyl ethers (PBDEs) / 多溴二苯醚		mg/kg	-	< RL	< RL	< RL
Monobromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Dibromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Tribromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Tetrabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Pentabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Hexabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Heptabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Octabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Nonabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Decabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL

Notes/ 註釋:
- < = less than/小於
- RL = Reporting Limit/報告極限值
- mg/kg = milligram per kilogram/毫克每公斤

Maximum permissible Limit acc. to 2011/65/EU (mg/kg) / 允許限值	**Cd/**鎘	**Cr(VI)/** 六價鉻	**Pb/**鉛	**Hg/**汞	**PBBs/** 多溴聯苯	**PBDEs/** 多溴二苯醚
	100	1000	1000	1000	1000	1000

Material No./材料號碼					Mat.1	Mat.2	Mat.3
Test Item/測試項目	**CAS No.**	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Phthalates/鄰苯二甲酸酯類							
Benzylbutylphthalate (BBP) / 鄰苯二甲酸苯基丁酯	85-68-7	with ref. to IEC 62321-8: 2017	mg/kg	50	< RL	< RL	< RL
Dibutylphthalate (DBP) / 鄰苯二甲酸二丁酯	84-74-2		mg/kg	50	< RL	< RL	< RL
Diethylhexylphthalate (DEHP) / 鄰苯二甲酸二(2-乙基己基)酯	117-81-7		mg/kg	50	< RL	< RL	< RL
Diisobutylphthalate (DIBP) / 鄰苯二甲酸二異丁酯	84-69-5		mg/kg	50	< RL	< RL	< RL
Diisodecylphthalate (DIDP) / 鄰苯二甲酸二異癸酯	26761-40-0 68515-49-1		mg/kg	50	< RL	< RL	< RL
Diisononylphthalate (DINP) / 鄰苯二甲酸二異壬酯	28553-12-0 68515-48-0		mg/kg	50	< RL	< RL	< RL
Di-n-octylphthalate (DNOP) / 鄰苯二甲酸二正辛酯	117-84-0		mg/kg	50	< RL	< RL	< RL
Di-n-hexyl Phthalate (DnHP)/ 鄰苯二甲酸二正己酯	84-75-3		mg/kg	50	< RL	< RL	< RL
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) / 1,2-苯二酸-二(C7-11 支鏈與直鏈)烷基(醇)酯	68515-42-4		mg/kg	50	< RL	< RL	< RL
1,2-benzenedicarboxylic acid; di-C6-8-branched alkylesters, C7-rich (DIHP)/鄰苯二甲酸二烷基酯	71888-89-6		mg/kg	50	< RL	< RL	< RL
Bis(2-methoxyethyl) phthalate (DMEP)/鄰苯二甲酸二甲氧乙酯	117-82-8		mg/kg	50	< RL	< RL	< RL
Dinonyl phthalate (DNP)/ 鄰苯二甲酸二正壬酯	84-76-4		mg/kg	50	< RL	< RL	< RL
Dimethyl phthalate (DMP)/ 鄰苯二甲酸二甲酯	131-11-3		mg/kg	50	< RL	< RL	< RL
Diethyl phthalate (DEP)/ 鄰苯二甲酸二乙酯	84-66-2		mg/kg	50	< RL	< RL	< RL
Dicyclohexyl phthalate (DCHP)/ 鄰苯二甲酸二環己酯	84-61-7		mg/kg	50	< RL	< RL	< RL
Diisopentylphthalate (DiPP)/ 鄰苯二甲酸二異戊酯	605-50-5		mg/kg	50	< RL	< RL	< RL
Di-n-pentyl Phthalate (DnPP)/ 鄰苯二甲酸二戊酯	131-18-0		mg/kg	50	< RL	< RL	< RL
N-Pentyl-isopentyl phthalate (NIPP)/鄰苯二甲酸正戊基異戊基酯	776297-69-9		mg/kg	50	< RL	< RL	< RL
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (BADP)/支鏈和直鏈 1,2-苯二羧二戊酯	84777-06-0		mg/kg	50	< RL	< RL	< RL

Notes/ 註釋:
- < = less than/小於 ;
- RL = Reporting Limit/報告極限值 ;
- mg/kg = milligram per kilogram/毫克每公斤

Maximum permissible Limit acc. to (EU) 2015/863 (mg/kg) / 允許限值	**BBP** 鄰苯二甲酸苯基丁酯	**DBP** 鄰苯二甲酸二丁酯	**DEHP** 鄰苯二甲酸二(2-乙基己基)酯	**DIBP** 鄰苯二甲酸二異丁酯
	1000	1000	1000	1000

Material No./材料號碼				Mat.1	Mat.2	Mat.3
Test Item/測試項目	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Halogen / 鹵素						
Fluorine (F) / 氟	with ref. to EN 14582:2016, IC	mg/kg	50	< RL	< RL	< RL
Chlorine (Cl) / 氯		mg/kg	50	< RL	< RL	< RL
Bromine (Br) / 溴		mg/kg	50	< RL	< RL	< RL
Iodine (I) / 碘		mg/kg	50	< RL	< RL	< RL
Total Cl + Br/ 氯+溴 總量		mg/kg	50	< RL	< RL	< RL
Perfluorooctane Sulfonate (PFOS) and its salts/全氟辛烷磺酸	with ref. to CEN/TS 15968:2010	mg/kg	0.01	< RL	< RL	< RL
Perfluorooctanoic Acid (PFOA) and its salts/全氟辛酸	with ref. to CEN/TS 15968:2010	mg/kg	0.01	< RL	< RL	< RL
Polyvinyl chloride (PVC) / 聚氯乙烯	FTIR	--	--	Negative	Negative	Negative
Tetrabromobisphenol-A (TBBP-A)/ 四溴雙酚-A	In house method, GC-MS	mg/kg	5	< RL	< RL	< RL
Hexabromocyclododecane (HBCDD) / 六溴環十二烷	solvent extraction / GC-MS	mg/kg	10	< RL	< RL	< RL
Polycyclic Aromatic Hydrocarbons (PAHs) / 多環芳香烴化合物						
Anthracene/蒽	AfPS GS 2019:01 PAK	mg/kg	0.2	< RL	< RL	< RL
Benz[a]anthracene/苯並[a]蒽		mg/kg	0.2	< RL	< RL	< RL
Benzo[a]pyrene (BaP)/苯並[a]芘		mg/kg	0.2	< RL	< RL	< RL
Benzo[b]fluoranthene/苯並[b]荧蒽		mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene/苯並[e]芘		mg/kg	0.2	< RL	< RL	< RL
Benzo[ghi]perylene/苯並[ghi] 苝		mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene/苯並[j]荧蒽		mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene/苯並[k]荧蒽		mg/kg	0.2	< RL	< RL	< RL
Chrysene/䓛		mg/kg	0.2	< RL	< RL	< RL
Dibenz[ah]anthracene/二苯並[ah]蒽		mg/kg	0.2	< RL	< RL	< RL
Fluoranthene/荧蒽		mg/kg	0.2	< RL	< RL	< RL
Indeno[1,2,3-cd]pyrene/ 茚並[1,2,3-cd] 芘		mg/kg	0.2	< RL	< RL	< RL
Naphthalene/萘		mg/kg	0.2	< RL	< RL	< RL
Phenanthrene/菲		mg/kg	0.2	< RL	< RL	< RL
Pyrene/芘		mg/kg	0.2	< RL	< RL	< RL
Sum/總量 of 蒽 (Anthracene), 荧蒽(Fluorathene), 菲(Phenanthrene), 芘(Pyrene)		mg/kg	0.2	< RL	< RL	< RL
Sum/總量 of 15 PAHs		mg/kg	0.2	< RL	< RL	< RL

Notes/ 註釋:
- < = less than/小於
- RL = Reporting Limit/報告極限值
- mg/kg = milligram per kilogram/毫克每公斤
- Negative = 陰性 ; Positive = 陽性

Requirement according to IEC 61249-2-21:2003 (mg/kg) / 標準限值	Chlorine (Cl) / 氯	Bromine (Br) / 溴	Total Cl + Br/ 氯+溴 總量
	900	900	1500

- PAH maximum permissible limits requirement from the GS-Mark Approval published by the German Federal Institute for Occupational Safety and Health (BAuA)/ PAH 最大允許限值來自德國聯邦職業安全與健康研究所(BAuA)發佈的 GS-Mark 認證。

Parameter 項目	Unit 單位	Category 1/第 1 類	Category 2/第 2 類		Category 3/第 3 類	
		Materials intended to be put into the mouth or materials of toy for children with long term intended skin contact (longer than 30 s) 意圖放入口中的材料，或與皮膚長期接觸的玩具材料(大於 30 秒) -	Materials not covered by category 1, with foreseeable long term skin contact (longer than 30 s) or repeated short-term skin contact 不屬於 1 類，且可預見的會與皮膚長期接觸(大於 30 秒)或多次短期接觸		Materials not covered by category 1 or 2, with foreseeable short term contact (shorter than 30 s) 不屬於 1 類或 2 類的材料，且可預見會與皮膚多次短期接觸(小於 30 秒)	
			Cat. 2a Use by children / 類別 2a 兒童用品***	Cat. 2b Other consumer products / 類別 2b 其他消費品	Cat. 3a Use by children / 類別 3a 兒童用品***	Cat. 3b Other consumer products / 類別 3b 其他消費品
苯並[a]芘 (Benzo[a]pyrene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[e]芘 (Benzo[e]pyrene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[a]蒽 (Benzo[a]anthracene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[b]熒蒽 (Benzo[b]fluoranthene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[j] 熒蒽 (Benzo[j]fluoranthene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[k] 熒蒽 (Benzo[k]fluoranthene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
䓛 (Chrysene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
二苯並[a,h]蒽 (Dibenzo[a,h]anthracene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[g,h,i]苝 (Benzo[g,h,i]perylene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
茚並[1,2,3-c,d]芘 (Indeno[1,2,3-c,d]pyrene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
萘 (Naphthalene)	mg/kg	<1	<2	<2	<10	<10
Sum/總量 of 蒽 (Anthracene), 熒蒽(Fluorathene), 菲(Phenanthrene), 芘(Pyrene)	mg/kg	<1	<5	<10	<20	<50
Sum/總量 of 15 PAHs	mg/kg	<1	<5	<10	<20	<50

Limit: Specific evaluation required according to type of foreseeable use.
限值: 根據可預見的用途類型進行具體評估。

** Single components with an amount of <0.2 mg/kg were not considered by the calculation of the sum. In the case of all PAHs were not detected, the result is stated < RL.
** 單一組分含量 <0.2 毫克/千克 不計入總和計算。如 PAHs 均未檢測到，結果顯示為 < RL。

*** The definition of "child" means persons before the age of 14 years. “Use by children” includes both active and passive direct contact by children.
***兒童意指為小於14歲之人。兒童用品包含主動或被動的被兒童接觸的產品。

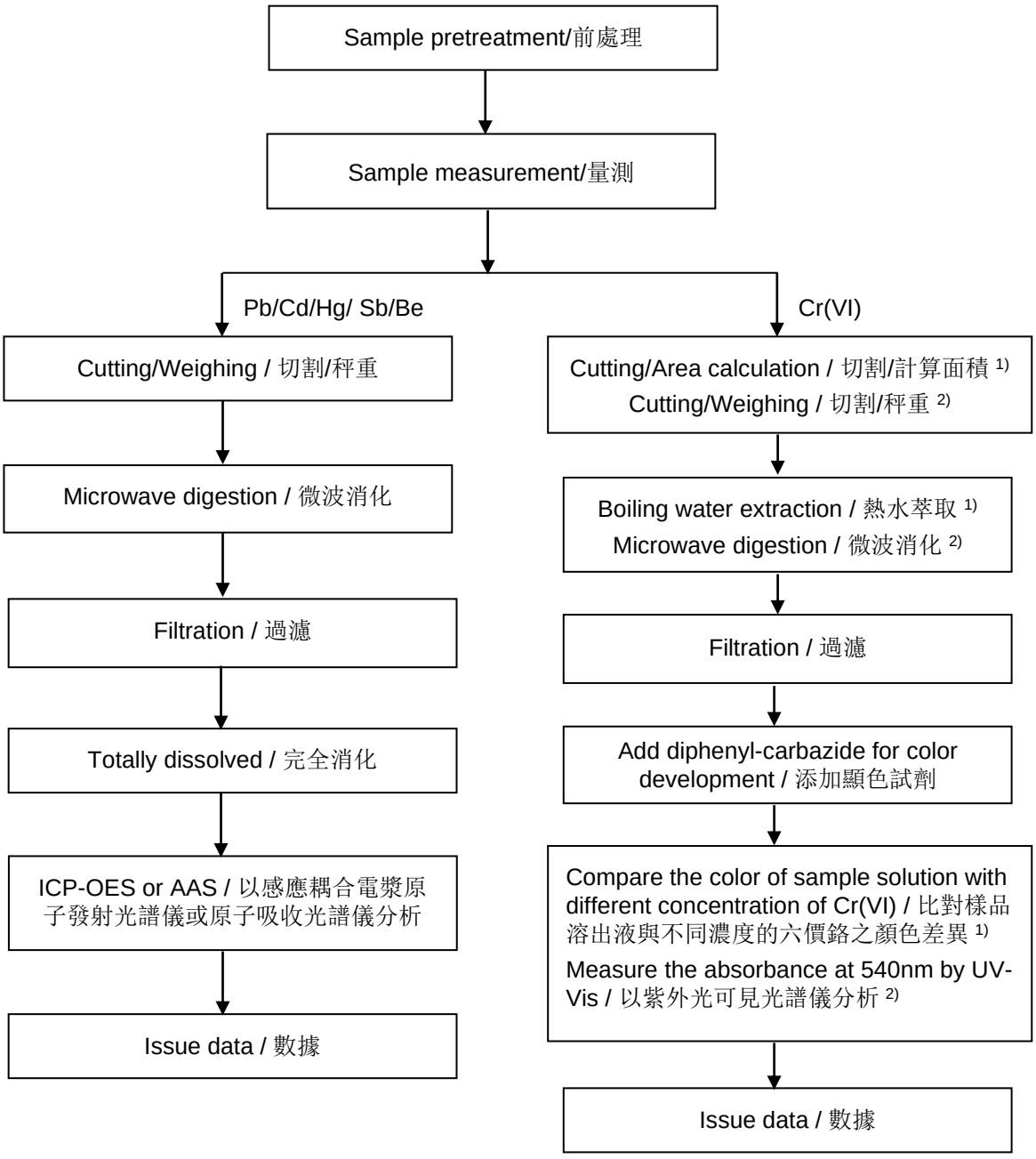
Material No./材料號碼				Mat.1	Mat.2	Mat.3
Test Item/測試項目	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Antimony (Sb)/銻	with ref. to USEPA 3052:1996, ICP-OES	mg/kg	10	< RL	< RL	122
Beryllium (Be)/鈹		mg/kg	10	< RL	--	--
Antimony(III) oxide/三氧化二銻*		mg/kg	10	< RL	--	--

Notes/ 註釋:
- < = less than/小於 ;
- RL = Reporting Limit/報告極限值 ;
- mg/kg = milligram per kilogram/毫克每公斤

* The substances are tested and calculated in terms of Antimony (Sb).

Testing procedure / 測試流程圖 :

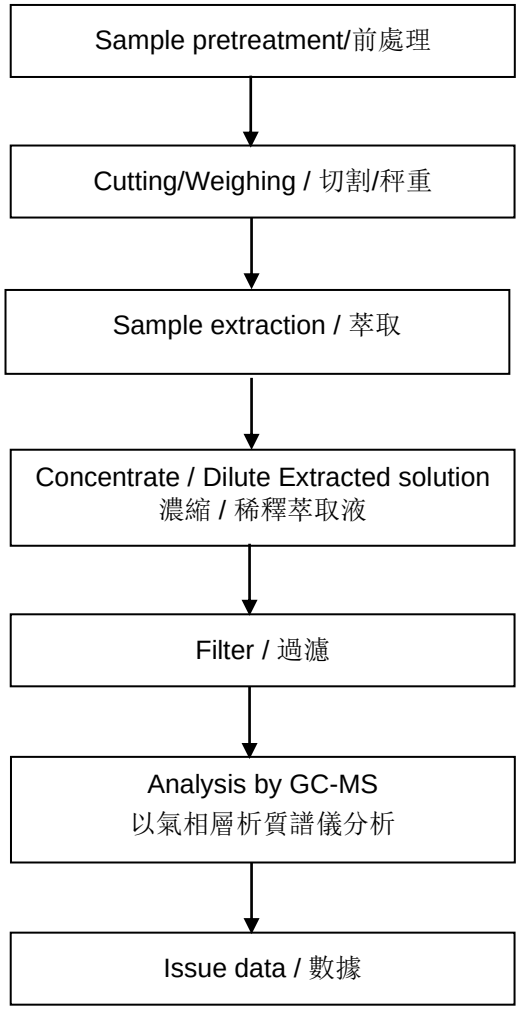
RoHS (Pb/鉛, Cd/鎘, Hg/汞, Cr(VI)/六價鉻) ; Sb/銻, Be/鈹



Notes/註釋: 1) For metallic material / 用於金屬物質
2) For non-metallic material / 用於非金屬物質

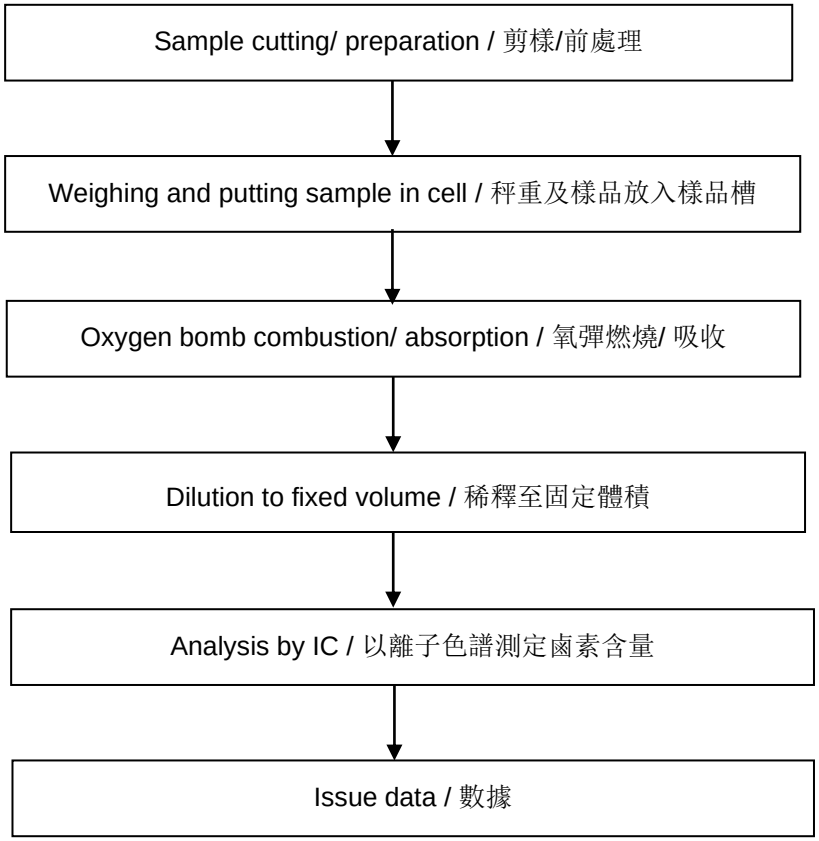
Testing procedure / 測試流程圖：

RoHS (PBBs/多溴聯苯, PBDEs/多溴二苯醚, BBP/鄰苯二甲酸苯基丁酯、DBP/鄰苯二甲酸二丁酯、DEHP/鄰苯二甲酸二(2-乙基已基)酯、DIBP/鄰苯二甲酸二異丁酯);
Phthalates/鄰苯二甲酸酯類, HBCDD/六溴環十二烷, PAHs/多環芳香烴化合物, TBBP-A/四溴雙酚-A



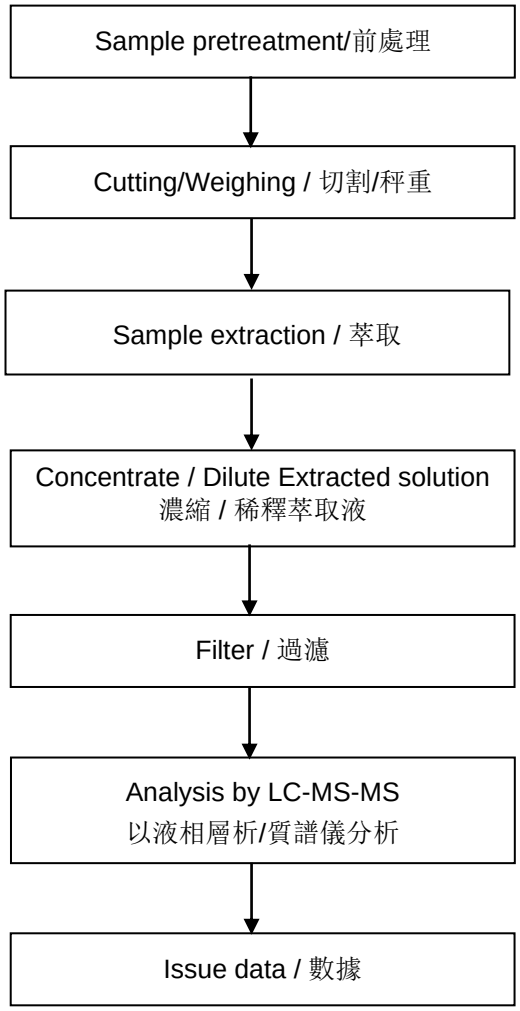
Testing procedure / 測試流程圖：

Halogen/鹵素



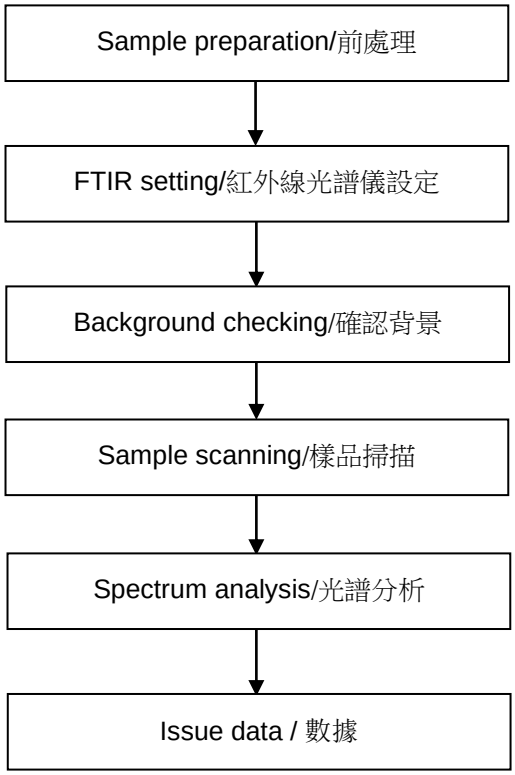
Testing procedure / 測試流程圖：

PFOS/全氟辛烷磺酸, PFOA/全氟辛酸



Testing procedure / 測試流程圖：

PVC/聚氯乙烯



--- End of Test-Report / 此報告結束---

高冠企業股份有限公司
KK ENTERPRISE CO. LTD.,

產品規格表
Specification

制訂日期：2017/06/20

代號 Code	TLT1	品　　名 Article Name	透明 PET 膜商標紙 Transparent PET Film Label

結構 Construction			
	Face Material	→透明 PET 膜	Transparent PET Film
	Adhesive	→壓克力膠	Acrylic Adhesive
	Liner	→PE 淋膜橘彩牛離型紙	PE Lami. Orange Kraft Release Paper

項目 Item		單位 Unit	數據 Data	測試方法 Test Method
面材 Face Material	厚　度 Thickness	mm	0.025±0.005	ASTM D-1000
	基　重 Basis Weight	g/m^2	32±3	
黏膠 Adhesive	上 膠 厚 度 Coat Thickness	mm	0.023±0.005	ASTM D-1000
	初 期 力 Initial Tack	cm	18 ↓	PSTC-6
	黏 著 力 Peel Adhesion	kgf/25mm	0.6 ↑	PSTC-1
	剝 離 力 Release Force	gf/25mm	6~12	PSTC-8
	保 持 力 Holding Power	hour/20×20mm/kgf	8 ↑	PSTC-7
底紙 Liner	厚　度 Thickness	mm	0.185±0.010	ASTM D-1000
	基　重 Basis Weight	g/m^2	164±11	
UL 認證溫度 UL Rating Temperature		℃	Min.:-20 / Max:125	UL 969
使用溫度 Service Temperature		℃	-20~+150	
最適貼標溫度 Ideal Application Temperature		℃	+10~+40	
保存期限 Storage life		months	12	
保存環境 Storage Condition		建議存放在陰涼通風處，避免陽光直接照射 Recommend to put in shady and cool place, and please avoid direct sunshine.		
備註 Remark		UL File MH13600		

以上技術資料為本公司採用公認可靠之檢驗方法，經多次檢驗所得之平均數據不做產品驗收之用。
基於欲使用之對象，請先行對使用目的與條件作詳盡了解與試用。

The above-mentioned technical data and recommendations are based on test or experience by KK, and should be considered representative or typical only, not for specification purposes. It is essential that user should evaluate the KK product to determine previously whether it is suitable for particular end-use.

Report No. 報告號碼: 48224188c30 002

Client 客戶: KK Enterprise Co., Ltd./ 高冠企業股份有限公司
No. 1&2, Tzu Chiang 3rd Road, Nantou City 540, Taiwan, R.O.C./
台灣 540 南投市南崗工業區自強三路1, 2號

Test item(s) 測試樣品: Adhesive/黏著劑, Plastic/塑膠

Identification/Model No(s): 樣品描述/規格: POLYESTER FILM LABEL(透明特多龍(聚酯膜)商標紙)
(Model no refer to page 2)

Sample obtaining method: 樣品獲取方式: Sending by customer

Condition at delivery: 樣品接收狀態: Test item complete and undamaged.

Sample receiving date: 收樣日期: 2023-09-23

Testing period: 測試週期: 2023-09-23 – 2023-10-16

Place of testing: 測試地點: TÜV Rheinland Hong Kong Ltd., TÜV Rheinland (Shanghai) Co. Ltd.

Test specification 測試要求:	***Test result 測試結果:***
Testing according to customer's specification for the following parameters:	
RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment Directive (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) / 依據電機電子設備限用有害物質指令(RoHS 2011/65/EU) 附錄II及其修正指令(EU) 2015/863: 鉛、鎘、汞、六價鉻、多溴聯苯、多溴二苯醚、鄰苯二甲酸苯基丁酯、鄰苯二甲酸二丁酯、鄰苯二甲酸二(2-乙基己基)酯、鄰苯二甲酸二異丁酯 之總含量	Pass/合格
Halogen/鹵素 (Cl/氯, Br/溴) according to IEC 61249-2-21:2003	Pass/合格
Phthalates/鄰苯二甲酸酯類(DINP/DIDP/DNOP/DnHP/DMEP/DnPP/DMP/DEP/DCHP/ DIPP/DIHP/DHNUP/NIPP/BADP/DNP), Halogen/鹵素(F/氟, I/碘), Perfluorooctane Sulfonate (PFOS)/全氟辛烷磺酸, Perfluorooctanoic Acid (PFOA)/全氟辛酸, Polyvinyl chloride (PVC)/聚氯乙烯, Tetrabromobisphenol-A (TBBP-A)/四溴雙酚-A, Hexabromocyclododecane (HBCDD)/六溴環十二烷, Polycyclic Aromatic Hydrocarbons (PAHs)/多環芳香烴化合物, Antimony (Sb)/銻, Beryllium (Be)/鈹, Antimony(III) oxide/三氧化二銻, Nickel (Ni)/鎳, Red Phosphorus/紅磷	Refer to result page *參照測試報告*

Other information: 其他信息: Refers to TÜV test report no.: 48224188a2 001, 48224188a3 001, 48224188a25 001
This test report repeals test report no. 48224188c30 001.

For and on behalf of
TÜV Rheinland Taiwan Ltd.

2023-10-20
Date *日期*

Arthur Cheng/Project Manager
Name/Position *姓名/職位*

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.
This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts.
This test report does not entitle to carry any safety mark on this or similar products.
"Decision Rule" document announced in our website (https://www.tuv.com/landingpage/en/qm-gcn/) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report..
樣品信息由客戶提供。測試結果根據所做測試的種類和範圍而得出。本測試報告僅對來樣負責。未經本測試中心許可，測試報告不得部分複製。不能根據此報告在上述產品或類似產品上使用任何安全標誌。本測試報告中，描述符合性聲明所應用的判定規則發佈在我司官網 https://www.tuv.com/landingpage/en/qm-gcn/。

Model No(s) / 品名型號:

ATLT07#4R, ATLT07#6R, ATLT07J#6R, ATLT100J#PR, ATLT38J#62, ATLT50#7, ATLTD5008#3, ATLTJ100#17, BTLT#B7, DL14, E-FR09, EFRT36J, EHMTLT, E-HMTLT50, E-HTLT, E-HTLT#1R, E-HTLT(BL), E-HTLT100#1R, E-HTLT38#8, E-HTLT50, E-HTLT50#1R, E-HTLTJ, E-HTLTJ#6R, EHTLTM75#9R, E-HTLTTLT12J, E-MHTLT100, E-MTLT50, E-PC75, E-TFT50+PE, E-TFTJ36, E-TFTMJ36, E-TLT, E-TLT#1R, E-TLT#1RA, ATLT50JE, E-TLT#3R, E-TLT#3R(I), ETLT#4R, E-TLT#4R, E-TLT#6R(I), E-TLT#7R, ETLT#8, E-TLT(BL), E-TLT1#8, E-TLT1#9H, E-TLT100, E-TLT100#1R, ETLT100+RP, E-TLT100E, E-TLT100H, E-TLT12, E-TLT12#6R, E-TLT150, E-TLT188, ETLT250, E-TLT250#3R, E-TLT36, E-TLT38#8, E-TLT50, E-TLT50#1R, E-TLT50#5R, E-TLT50#6R, E-TLT50#7R, E-TLT50ULE, E-TLT75, E-TLT75#6R, E-TLT75#7R, E-TLT8E, E-TLTE, E-TLTE#9H, E-TLTHE, E-TLTJ#1R, E-TLTJ100E-A, ETLTJ12#1R, E-TLTJHE, E-TLTMJ50, E-TLTMJ50#7R, E-TMPC, E-TTLT+TLT, DLJ25, E-TTLT+TLTJ, E-TTLT100#1R, ETTLT100+RP, E-TTLT12, E-TTLT12#5R, E-TTLT50, E-TTLT50#1R, E-TTLT50#3R, HTLT07J#PW, E-TTLT50#6R, E-TTLTM, E-TTLTMJ75, E-TTLTW+TLT, FR09, FR-09, FR09#25, FR09#25J, FR09#36, FR-09#36, FR09#36J, FR09#50, FR-09#50, FR09#50J, FR09#70, FR-09#70, FR09#70J, FR09#75, FR-09#75, FR09#75J, FR09KC, GL10, HEZTLT, HGTLT02J#9, HGTLTJ5001#21, HITLT, HITLT10, HITLT12, HLT50(BL), HLT50H, HMFR-09, HMTLT, HMTLT#1R, L102, HMTLT#3R, HMTLT100, HMTLT50, HMTLT50#1R, HMTLT50#3R, HMTLT50#4R, HMTLT75, HTLAT, HTLATJ, HTLT, HTLT#1R, HTLT#1R3, HTLT#21, HTLT02J#9, HTLT03J, HTLT07J#6R, HTLT09J, HTLT1, HTLT100#1R, HTLT100#5R, HTLT100#6, HTLT100J#1R, HTLT12, HTLT12#17, HTLT12#1R, HTLT125, HTLT16, HTLT188, HTLT25, HTLT31J, HTLT38, HTLT50, HTLT5002J, HTLT50H, HTLT50J, HTLT50J#1R, HTLTD, HTLTH, HTLTI, HTLTJ, HTLTJ#2R, HTLTJ16, HTLTJ50, HTLTJ5001#21, HTLTJ5002#55, HTLTJ50BL#21, HTLTJBL#KR, HTLTM, HTLTME, ITLT12, K1011, K1014, K1030, KITLT12, KTLT50J#5R, L105J, L111, L115K, PC, PC125, PC127, PC76, PC835, TLTH36E, R4HTLTJ50BL#9, RATLT01J#9, RATLT5001E#9, RATLT75, L156, RATLT75#1, RATLTJ5009#3A, RHTLT09J, RTLT16J#3R, RVTLT, SMDT-TA, TD10, TFTJ36, TLAT, TLAT07, TLAT07#A4, TLAT1, TLAT17, TLATM, TLT, TLT#, TLT#17, TLT#1R, TLT#1R1, TLT#1R2, TLT#1R3, TLT#2R, TLT#3R, TLT#4R, TLT#5R, TLT#6R, TLT#RT3, TLT(I), TLT1, TLT10#1R3, TLT100, TTLT5038, TLT100#1R, TLT100#1R(I), TLT100#1R2, TLT100#1R3, HTLTM#1R, TLT100#2R, TLT100#3R, TLT100#4R, TLT100#5R, TLT12, VL09, TLT12#17, TLT12#1R, TLT125, TLT125#1R, TLT12E, TLT12H, TLT16, TLT16E, TLT188, TLT50, TLT50#1R, TLT50#1R(I), TLT50(I), TLT5014#31, TLT50E, TLT50H, TLT50J, TLT50J#1R, TLT75#1R, TLT75#RA, TLT75BL, TLTE, TLTGY, TLTGY25, TLTJ, TLTM, TLTM50, TMLT50, TPAT, TPATL, TTLT, TTLT100, TTLT16, TTLT16J, TTLT25, TTLT50#1R3, TTLT50#4R, TTLT50#4R2, TTLT50#RA, TTLT50(I), TTLT50J, TTLTJ50I#21, TTLTM, TTLTM19, T-TLTM19, TTLTM19J, TTXL912, DLJ26, VTLATJI27, VTLT01, VTLT01#55, VTLT01J#17, VTLT31J, VTLT5024#9, VTLTM100#AR, VZTLT, X1-SMDT-TA, XHTLT12,

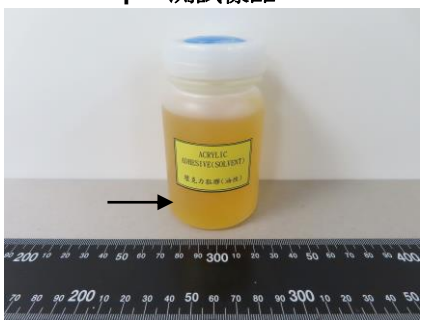
* All the above item no. are the same material/color/manufacturing process according to client's declaration dated on 2023-10-19.

Material list/材料清單

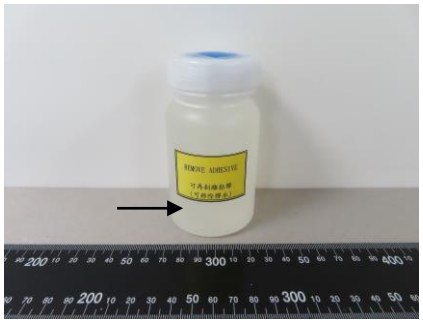
Item: POLYESTER FILM LABEL(透明特多龍(聚酯膜)商標紙)

Material No./ 材料編號	Material/材質	Color/顏色	Location/位置
1	Adhesive/黏著劑	Yellow/黃色	TCL230923-02
2	Adhesive/黏著劑	Transparent/透明	TCL230923-03
3	Plastic/塑膠	Transparent/透明	TCL230923-25

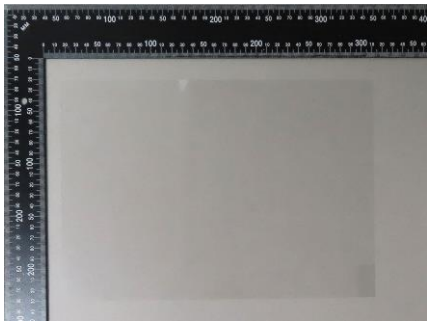
Test Sample/測試樣品



1



2



3

Material No./材料號碼				Mat.1	Mat.2	Mat.3
Test Item/測試項目	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Cadmium (Cd) / 鎘	with ref. to IEC 62321-4:2013 / IEC 62321-5:2013	mg/kg	2	< RL	< RL	< RL
Lead (Pb) / 鉛		mg/kg	2	< RL	< RL	< RL
Mercury (Hg) / 汞		mg/kg	2	< RL	< RL	< RL
Chromium VI (Cr VI) / 六價鉻	with ref. to IEC 62321-7-2:2017	mg/kg	8	< RL	< RL	< RL
Sum of Polybrominated biphenyls (PBBs) / 多溴聯苯	with ref. to IEC 62321-6:2015	mg/kg	-	< RL	< RL	< RL
Monobromobiphenyl		mg/kg	5	< RL	< RL	< RL
Dibromobiphenyl		mg/kg	5	< RL	< RL	< RL
Tribromobiphenyl		mg/kg	5	< RL	< RL	< RL
Tetrabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Pentabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Hexabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Heptabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Octabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Nonabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Decabromobiphenyl		mg/kg	5	< RL	< RL	< RL
Sum of Polybrominated diphenyl ethers (PBDEs) / 多溴二苯醚		mg/kg	-	< RL	< RL	< RL
Monobromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Dibromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Tribromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Tetrabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Pentabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Hexabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Heptabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Octabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Nonabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL
Decabromodiphenyl ether		mg/kg	5	< RL	< RL	< RL

Notes/ 註釋:
- < = less than/小於
- RL = Reporting Limit/報告極限值
- mg/kg = milligram per kilogram/毫克每公斤

Maximum permissible Limit acc. to 2011/65/EU (mg/kg) / 允許限值	**Cd/**鎘	**Cr(VI)/** 六價鉻	**Pb/**鉛	**Hg/**汞	**PBBs/** 多溴聯苯	**PBDEs/** 多溴二苯醚
	100	1000	1000	1000	1000	1000

Material No./材料號碼					Mat.1	Mat.2	Mat.3
Test Item/測試項目	**CAS No.**	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Phthalates/鄰苯二甲酸酯類							
Benzylbutylphthalate (BBP) / 鄰苯二甲酸苯基丁酯	85-68-7	with ref. to IEC 62321-8: 2017	mg/kg	50	< RL	< RL	< RL
Dibutylphthalate (DBP) / 鄰苯二甲酸二丁酯	84-74-2		mg/kg	50	< RL	< RL	< RL
Diethylhexylphthalate (DEHP) / 鄰苯二甲酸二(2-乙基己基)酯	117-81-7		mg/kg	50	< RL	< RL	< RL
Diisobutylphthalate (DIBP) / 鄰苯二甲酸二異丁酯	84-69-5		mg/kg	50	< RL	< RL	< RL
Diisodecylphthalate (DIDP) / 鄰苯二甲酸二異癸酯	26761-40-0 68515-49-1		mg/kg	50	< RL	< RL	< RL
Diisononylphthalate (DINP) / 鄰苯二甲酸二異壬酯	28553-12-0 68515-48-0		mg/kg	50	< RL	< RL	< RL
Di-n-octylphthalate (DNOP) / 鄰苯二甲酸二正辛酯	117-84-0		mg/kg	50	< RL	< RL	< RL
Di-n-hexyl Phthalate (DnHP)/ 鄰苯二甲酸二正己酯	84-75-3		mg/kg	50	< RL	< RL	< RL
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) / 1,2-苯二酸-二(C7-11 支鏈與直鏈)烷基(醇)酯	68515-42-4		mg/kg	50	< RL	< RL	< RL
1,2-benzenedicarboxylic acid; di-C6-8-branched alkylesters, C7-rich (DIHP)/鄰苯二甲酸二烷基酯	71888-89-6		mg/kg	50	< RL	< RL	< RL
Bis(2-methoxyethyl) phthalate (DMEP)/鄰苯二甲酸二甲氧乙酯	117-82-8		mg/kg	50	< RL	< RL	< RL
Dinonyl phthalate (DNP)/ 鄰苯二甲酸二正壬酯	84-76-4		mg/kg	50	< RL	< RL	< RL
Dimethyl phthalate (DMP)/ 鄰苯二甲酸二甲酯	131-11-3		mg/kg	50	< RL	< RL	< RL
Diethyl phthalate (DEP)/ 鄰苯二甲酸二乙酯	84-66-2		mg/kg	50	< RL	< RL	< RL
Dicyclohexyl phthalate (DCHP)/ 鄰苯二甲酸二環己酯	84-61-7		mg/kg	50	< RL	< RL	< RL
Diisopentylphthalate (DiPP)/ 鄰苯二甲酸二異戊酯	605-50-5		mg/kg	50	< RL	< RL	< RL
Di-n-pentyl Phthalate (DnPP)/ 鄰苯二甲酸二戊酯	131-18-0		mg/kg	50	< RL	< RL	< RL
N-Pentyl-isopentyl phthalate (NIPP)/鄰苯二甲酸正戊基異戊基酯	776297-69-9		mg/kg	50	< RL	< RL	< RL
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (BADP)/支鏈和直鏈 1,2-苯二羧二戊酯	84777-06-0		mg/kg	50	< RL	< RL	< RL

Notes/ 註釋:
- < = less than/小於 ;
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- mg/kg = milligram per kilogram/毫克每公斤

Maximum permissible Limit acc. to (EU) 2015/863 (mg/kg) / 允許限值	**BBP** 鄰苯二甲酸苯基丁酯	**DBP** 鄰苯二甲酸二丁酯	**DEHP** 鄰苯二甲酸二(2-乙基己基)酯	**DIBP** 鄰苯二甲酸二異丁酯
	1000	1000	1000	1000

Material No./材料號碼				Mat.1	Mat.2	Mat.3
Test Item/測試項目	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Halogen / 鹵素						
Fluorine (F) / 氟	with ref. to EN 14582:2016, IC	mg/kg	50	< RL	< RL	< RL
Chlorine (Cl) / 氯		mg/kg	50	< RL	< RL	< RL
Bromine (Br) / 溴		mg/kg	50	< RL	< RL	< RL
Iodine (I) / 碘		mg/kg	50	< RL	< RL	< RL
Total Cl + Br/ 氯+溴 總量		mg/kg	50	< RL	< RL	< RL
Perfluorooctane Sulfonate (PFOS) and its salts/全氟辛烷磺酸	with ref. to CEN/TS 15968:2010	mg/kg	0.01	< RL	< RL	< RL
Perfluorooctanoic Acid (PFOA) and its salts/全氟辛酸	with ref. to CEN/TS 15968:2010	mg/kg	0.01	< RL	< RL	< RL
Polyvinyl chloride (PVC) / 聚氯乙烯	FTIR	--	--	Negative	Negative	Negative
Tetrabromobisphenol-A (TBBP-A)/ 四溴雙酚-A	In house method, GC-MS	mg/kg	5	< RL	< RL	< RL
Hexabromocyclododecane (HBCDD) / 六溴環十二烷	solvent extraction / GC-MS	mg/kg	10	< RL	< RL	< RL
Polycyclic Aromatic Hydrocarbons (PAHs) / 多環芳香烴化合物						
Anthracene/蒽	AfPS GS 2019:01 PAK	mg/kg	0.2	< RL	< RL	< RL
Benz[a]anthracene/苯並[a]蒽		mg/kg	0.2	< RL	< RL	< RL
Benzo[a]pyrene (BaP)/苯並[a]芘		mg/kg	0.2	< RL	< RL	< RL
Benzo[b]fluoranthene/苯並[b]荧蒽		mg/kg	0.2	< RL	< RL	< RL
Benzo[e]pyrene/苯並[e]芘		mg/kg	0.2	< RL	< RL	< RL
Benzo[ghi]perylene/苯並[ghi] 苝		mg/kg	0.2	< RL	< RL	< RL
Benzo[j]fluoranthene/苯並[j]荧蒽		mg/kg	0.2	< RL	< RL	< RL
Benzo[k]fluoranthene/苯並[k]荧蒽		mg/kg	0.2	< RL	< RL	< RL
Chrysene/䓛		mg/kg	0.2	< RL	< RL	< RL
Dibenz[ah]anthracene/二苯並[ah]蒽		mg/kg	0.2	< RL	< RL	< RL
Fluoranthene/荧蒽		mg/kg	0.2	< RL	< RL	< RL
Indeno[1,2,3-cd]pyrene/ 茚並[1,2,3-cd] 芘		mg/kg	0.2	< RL	< RL	< RL
Naphthalene/萘		mg/kg	0.2	< RL	< RL	< RL
Phenanthrene/菲		mg/kg	0.2	< RL	< RL	< RL
Pyrene/芘		mg/kg	0.2	< RL	< RL	< RL
Sum/總量 of 蒽 (Anthracene), 荧蒽(Fluorathene), 菲(Phenanthrene), 芘(Pyrene)		mg/kg	0.2	< RL	< RL	< RL
Sum/總量 of 15 PAHs		mg/kg	0.2	< RL	< RL	< RL

Notes/ 註釋:
- < = less than/小於
- RL = Reporting Limit/報告極限值
- mg/kg = milligram per kilogram/毫克每公斤
- Negative = 陰性 ; Positive = 陽性

Requirement according to IEC 61249-2-21:2003 (mg/kg) / 標準限值	Chlorine (Cl) / 氯	Bromine (Br) / 溴	Total Cl + Br/ 氯+溴 總量
	900	900	1500

- PAH maximum permissible limits requirement from the GS-Mark Approval published by the German Federal Institute for Occupational Safety and Health (BAuA)/ PAH 最大允許限值來自德國聯邦職業安全與健康研究所(BAuA)發佈的 GS-Mark 認證。

Parameter 項目	Unit 單位	Category 1/第 1 類	Category 2/第 2 類		Category 3/第 3 類	
		Materials intended to be put into the mouth or materials of toy for children with long term intended skin contact (longer than 30 s) 意圖放入口中的材料，或與皮膚長期接觸的玩具材料(大於 30 秒) -	Materials not covered by category 1, with foreseeable long term skin contact (longer than 30 s) or repeated short-term skin contact 不屬於 1 類，且可預見的會與皮膚長期接觸(大於 30 秒)或多次短期接觸		Materials not covered by category 1 or 2, with foreseeable short term contact (shorter than 30 s) 不屬於 1 類或 2 類的材料，且可預見會與皮膚多次短期接觸(小於 30 秒)	
			Cat. 2a Use by children / 類別 2a 兒童用品***	Cat. 2b Other consumer products / 類別 2b 其他消費品	Cat. 3a Use by children / 類別 3a 兒童用品***	Cat. 3b Other consumer products / 類別 3b 其他消費品
苯並[a]芘 (Benzo[a]pyrene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[e]芘 (Benzo[e]pyrene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[a]蒽 (Benzo[a]anthracene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[b]熒蒽 (Benzo[b]fluoranthene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[j] 熒蒽 (Benzo[j]fluoranthene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[k] 熒蒽 (Benzo[k]fluoranthene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
䓛 (Chrysene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
二苯並[a,h]蒽 (Dibenzo[a,h]anthracene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
苯並[g,h,i]苝 (Benzo[g,h,i]perylene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
茚並[1,2,3-c,d]芘 (Indeno[1,2,3-c,d]pyrene)	mg/kg	<0.2	<0.2	<0.5	<0.5	<1
萘 (Naphthalene)	mg/kg	<1	<2	<2	<10	<10
Sum/總量 of 蒽 (Anthracene), 熒蒽(Fluorathene), 菲(Phenanthrene), 芘(Pyrene)	mg/kg	<1	<5	<10	<20	<50
Sum/總量 of 15 PAHs	mg/kg	<1	<5	<10	<20	<50

Limit: Specific evaluation required according to type of foreseeable use.
限值: 根據可預見的用途類型進行具體評估。

** Single components with an amount of <0.2 mg/kg were not considered by the calculation of the sum. In the case of all PAHs were not detected, the result is stated < RL.
** 單一組分含量 <0.2 毫克/千克 不計入總和計算。如 PAHs 均未檢測到，結果顯示為 < RL。

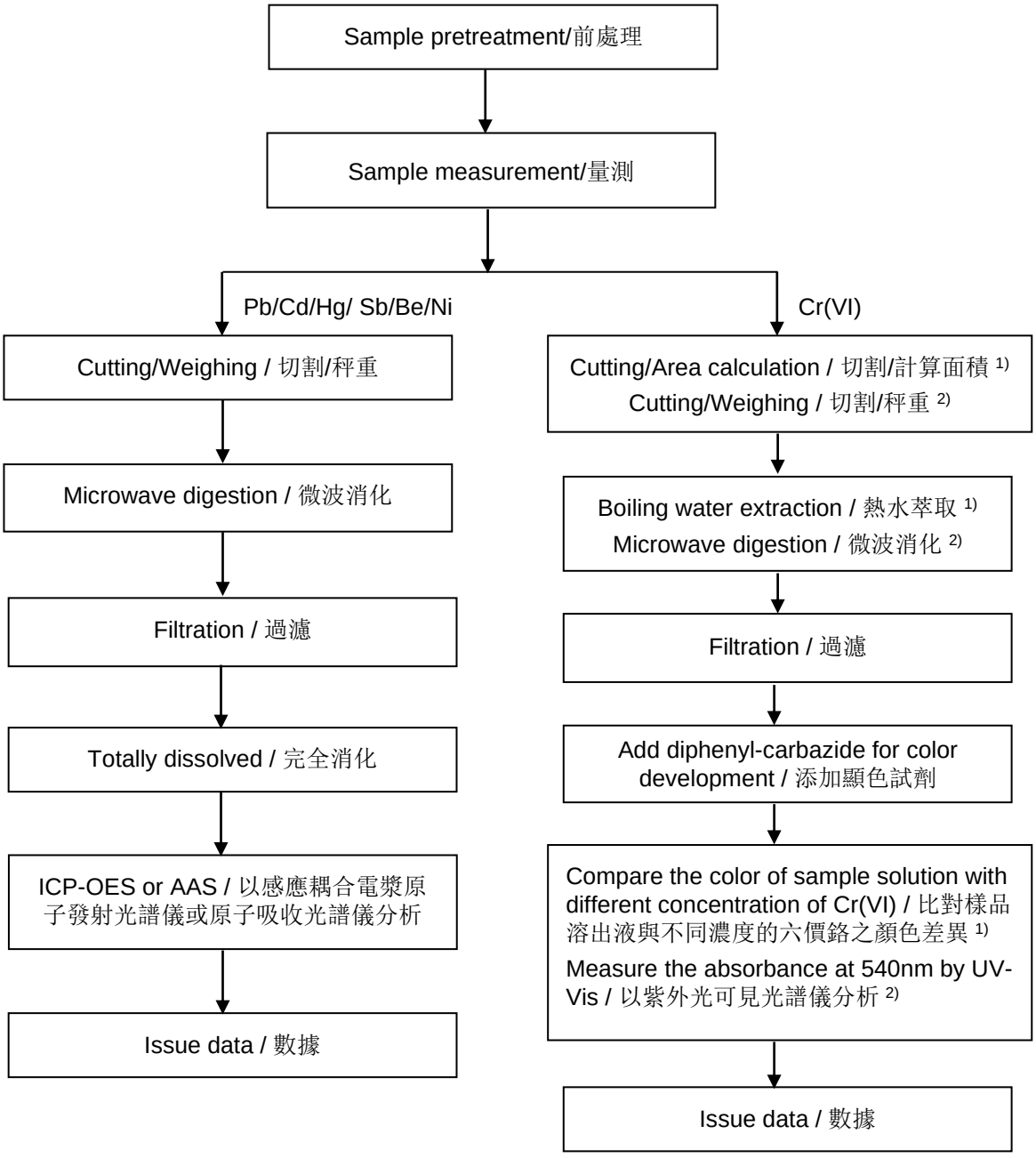
*** The definition of "child" means persons before the age of 14 years. “Use by children” includes both active and passive direct contact by children.
***兒童意指為小於14歲之人。兒童用品包含主動或被動的被兒童接觸的產品。

Material No./材料號碼				Mat.1	Mat.2	Mat.3
Test Item/測試項目	**Test Method/ 測試方法**	**Unit / 單位**	**RL**	**Result/ 結果**	**Result/ 結果**	**Result/ 結果**
Antimony (Sb)/銻	with ref. to USEPA 3052:1996, ICP-OES	mg/kg	10	< RL	< RL	116
Beryllium (Be)/鈹		mg/kg	10	< RL	--	--
Antimony(III) oxide/三氧化二銻*		mg/kg	10	< RL	--	--
Nickel (Ni)/鎳		mg/kg	10	--	--	< RL
Red Phosphorus/紅磷	Pyrolyzer-GC/MS	--	--	--	--	Negative

Notes/ 註釋:
- < = less than/小於 ;
- RL = Reporting Limit/報告極限值 ;
- mg/kg = milligram per kilogram/毫克每公斤
* The substances are tested and calculated in terms of Antimony (Sb).

Testing procedure / 測試流程圖 :

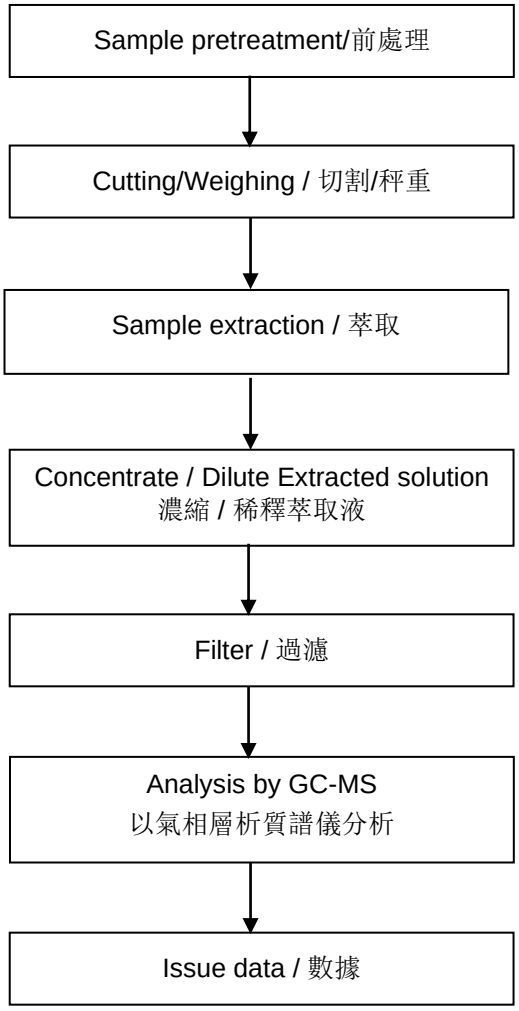
RoHS (Pb/鉛, Cd/鎘, Hg/汞, Cr(VI)/六價鉻) ; Sb/銻, Be/鈹, Ni/鎳



Notes/註釋: 1) For metallic material / 用於金屬物質
2) For non-metallic material / 用於非金屬物質

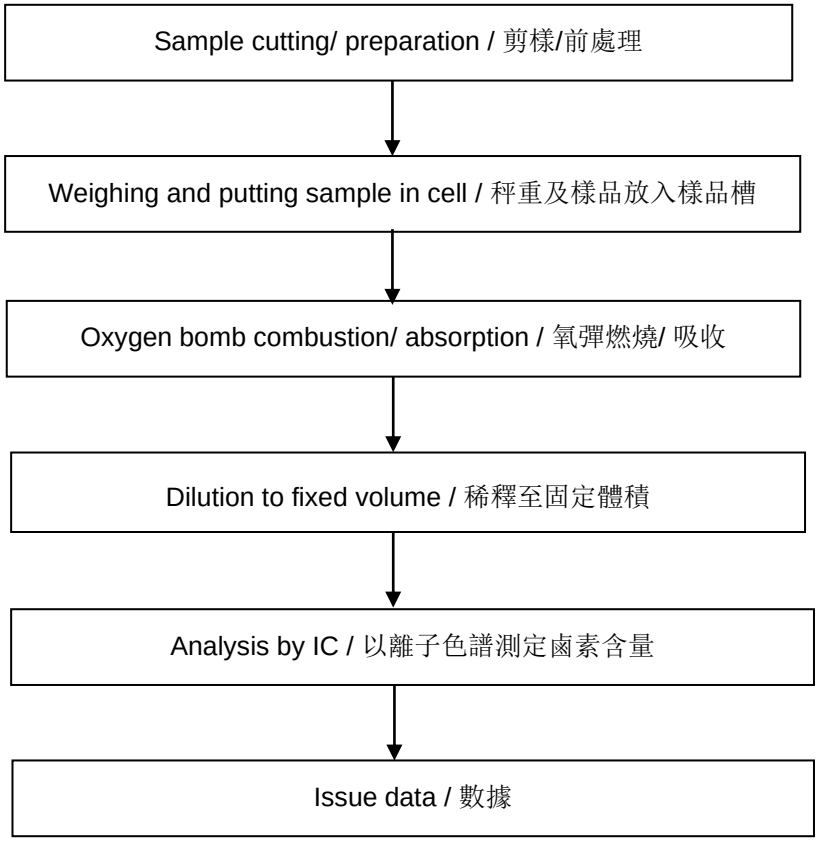
Testing procedure / 測試流程圖：

RoHS (PBBs/多溴聯苯, PBDEs/多溴二苯醚, BBP/鄰苯二甲酸苯基丁酯、DBP/鄰苯二甲酸二丁酯、DEHP/鄰苯二甲酸二(2-乙基己基)酯、DIBP/鄰苯二甲酸二異丁酯);
Phthalates/鄰苯二甲酸酯類, HBCDD/六溴環十二烷, PAHs/多環芳香烴化合物, TBBP-A/四溴雙酚-A



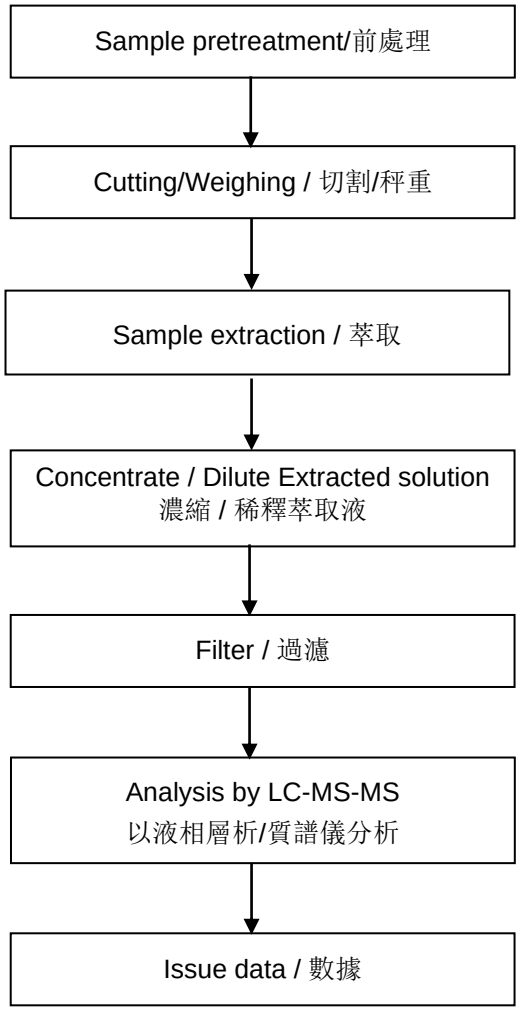
Testing procedure / 測試流程圖：

Halogen/鹵素



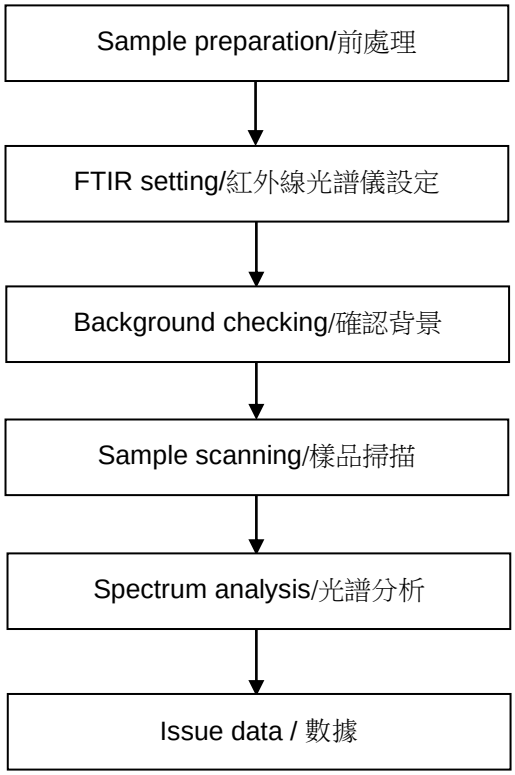
Testing procedure / 測試流程圖 :

PFOS/全氟辛烷磺酸, PFOA/全氟辛酸



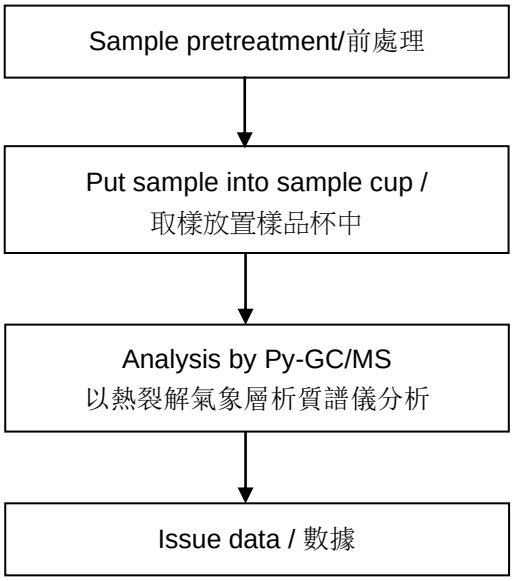
Testing procedure / 測試流程圖：

PVC/聚氯乙烯



Testing procedure / 測試流程圖：

Red Phosphorus/紅磷



--- End of Test-Report / 此報告結束---

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Printing Materials MH26473

Guide Information

DONG FENG PRINTING ENTERPRISE CO LTD

1F No 33 Ln 167 Sec 1 Tonghe E St, Shilin District, Taipei City 111058 TW

unprinted stock dsg: DF-A01, XF-A01 - printed stock dsg: DF-A01, XF-A01

Pressure-sensitive systems

Suitable for additional printing with one or more of the following inks (in the black color unless otherwise indicated):

Thermal transfer ribbon

Ricoh B110A, B110C, B110CX

Application Surface	Max Temp (°C)	Min Temp (°C)	Indoor Use	Outdoor Use	Additional Conditions
Alkyd paint	125	-	Yes	No	-
Aluminum	125	-	Yes	No	-
Stainless steel	125	-	Yes	No	-
Polycarbonate	80	-	Yes	No	-
Acrylonitrile butadiene styrene	60	-	Yes	No	-

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