SUPER DARTER

承認書

SPECIFICATION FOR APPROVAL

客戶名稱: 鈺緯科技開發股份有限公司

日期: 2026-01-20

系列: WIP252012S L Series

25x20x12mm 0.47uH~4.7uH Irms:1.5A~4.9A

Brand Name: INPAQ

Approval By:

設計驗證
工程課
2026-03-02
發行
鈺緯科技開發股份有限公司

承認印:

達而特企業股份有限公司
統一發票專用章
統一編號
23742666
負責人:朱榮輝
TEL:27892766
南港路3段80巷26號2F

達而特企業股份有限公司
SUPER DARTER CORPORATION
115台北市南港區南港路三段80巷26號2樓
2F, NO 26, LANE 80, SEC3, NANGANG RD, TAIPEI, TAIWAN, R.O.C.
TEL: 02-27892766 FAX: 02-27892767

項次	料　　號	原廠料號	規　　格
1	3LCH47A401Y	WIP252012S-4R7ML	IND 2520 4.7uH 1.5A DCR:180mΩ

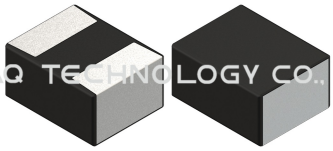


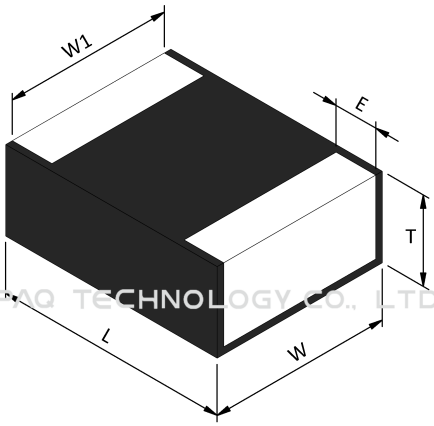
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WIP252012S-4R7ML

General ROHS HF

Appearance & Shape





Series	L [mm]	W [mm]	W1 [mm]	T [mm]	E [mm]
201610	2.0±0.2	1.6±0.2	1.4±0.2	1.0 max.	0.6±0.3
201612	2.0±0.2	1.6±0.2	1.4±0.2	1.2 max.	0.5±0.3
252010	2.5±0.2	2.0±0.2	1.8±0.2	1.0 max.	0.6±0.3
252012	2.5±0.2	2.0±0.2	1.8±0.2	1.2 max.	0.6±0.3

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Specification

L size(mm)	2.5±0.2
W size(mm)	2.0±0.2
T size(mm)	1.2 max.
Size code_Inch (mm)	1008/2520
Inductance(uH)	4.7
DCR(mΩ)Typ.	160
DCR(mΩ)Max.	180
Isat(A)Typ.	2.2
Isat(A)Max.	2
Irms(A)Typ.	1.8
Irms(A)Max.	1.5
QValue(Typ.)	30
SRF[MHz] Typ.	35
Withstand voltage(DC)	20V DC
Operating Temperature range(includingself-temperaturerising)℃	-40℃ to +125℃

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Notices

Notes

1. Customized design is available, please contact us.

2. All test referenced to 25°C ambient.

3. Inductance tolerance +/- 20%.

4. Inductance is measured with Agilent® LCR meter 4285A (or equivalent) at 1MHz/1V.

5. DC resistance is measured with HIOKI® micro-ohm meter RM3542 or equivalent.

6. Isat：DC current (A) that will cause Li to drop approximately 30%.

7. Irms：DC current (A) that will cause an approximate ΔT of 40°C.

8. The rated current value is following either Isat (max.) or Irms (max), which value is lower one.

9. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. PCB land pattern, trace size - thick, circuit design and proximity to other components are all the factors will affect the temperature performance of the device. Therefore, it should be approved in application conditions and end product.

10. Rated voltage:20V DC (max.)

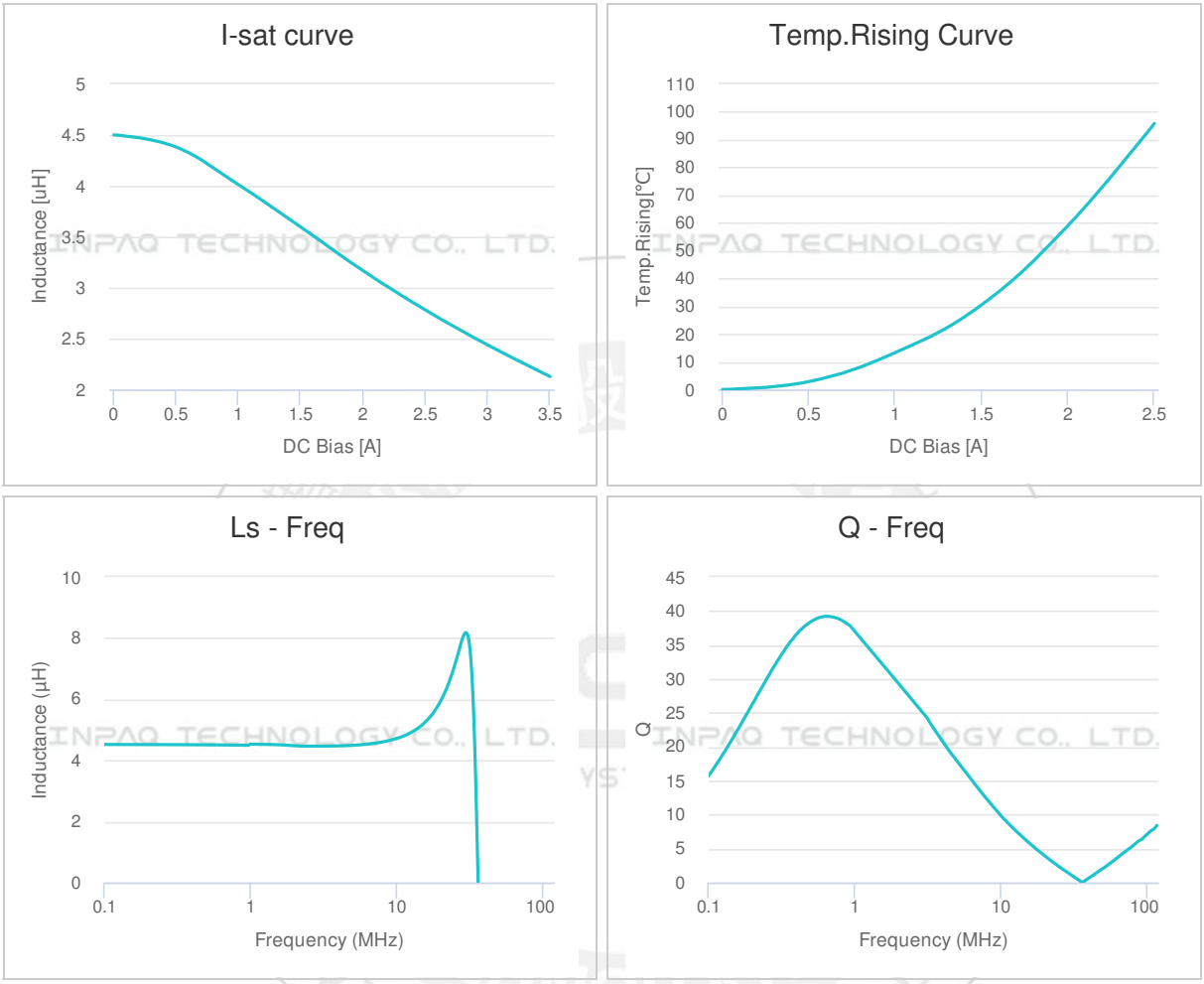
Packing

Packing Reel(Inch)	Standard package quantity(KPCS)	Piece weight(gram)	MSL Level
7	3	0.0362	1

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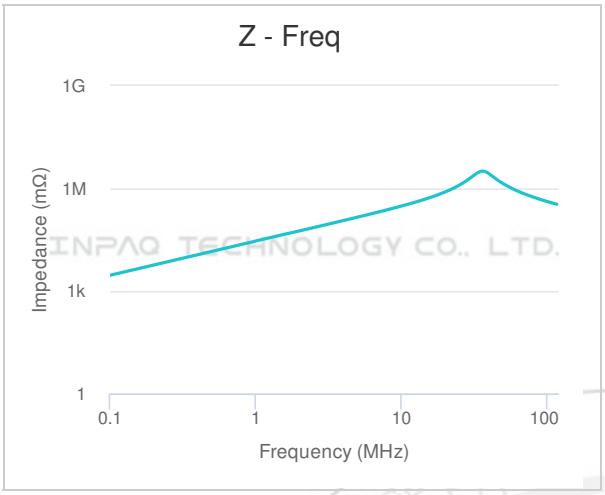
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Characteristic curve



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Test Report 測試報告

Number 報告號碼 : TWNC01378841

Issue Date 報告發行日期 : Jul 17, 2025

Applicant: 申請廠商
Inpaq Technology Co., Ltd.
佳邦科技股份有限公司
No. 11, Ke-yi St.,
Zhunan Township, Miaoli County 350402,
Taiwan, R.O.C.
苗栗縣竹南鎮公義里 11 鄰科義街 11 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 Description 樣品名稱 : WIP S Series

Date Sample Received 收件日期 : Jul 09, 2025

Date Test Started 開始測試日期 : Jul 09, 2025

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.

Authorized By:
On behalf of Intertek Testing Services Taiwan Limited

Matt Wang
General Manager

Signed by:

Thomas Chou
Manager

報告查詢 Report Verification

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 Black electronic component (mixed all parts)	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	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	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	2
Chromium VI (Cr(VI)) 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	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 Black electronic component (mixed all parts)	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	5
Dibrominated Biphenyls (DiBB) 二溴聯苯	ppm		ND	5
Tribrominated Biphenyls (TriBB) 三溴聯苯	ppm		ND	5
Tetrabrominated Biphenyls (TetraBB) 四溴聯苯	ppm		ND	5
Pentabrominated Biphenyls (PentaBB) 五溴聯苯	ppm		ND	5
Hexabrominated Biphenyls (HexaBB) 六溴聯苯	ppm		ND	5
Heptabrominated Biphenyls (HeptaBB) 七溴聯苯	ppm		ND	5
Octabrominated Biphenyls (OctaBB) 八溴聯苯	ppm		ND	5
Nonabrominated Biphenyls (NonaBB) 九溴聯苯	ppm		ND	5
Decabrominated Biphenyl (DecaBB) 十溴聯苯	ppm		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	5
Dibrominated Diphenyl Ethers (DiBDE) 二溴聯苯醚	ppm		ND	5
Tribrominated Diphenyl Ethers (TriBDE) 三溴聯苯醚	ppm		ND	5
Tetrabrominated Diphenyl Ethers (TetraBDE) 四溴聯苯醚	ppm		ND	5
Pentabrominated Diphenyl Ethers (PentaBDE) 五溴聯苯醚	ppm		ND	5
Hexabrominated Diphenyl Ethers (HexaBDE) 六溴聯苯醚	ppm		ND	5
Heptabrominated Diphenyl Ethers (HeptaBDE) 七溴聯苯醚	ppm		ND	5
Octabrominated Diphenyl Ethers (OctaBDE) 八溴聯苯醚	ppm		ND	5
Nonabrominated Diphenyl Ethers (NonaBDE) 九溴聯苯醚	ppm		ND	5
Decabrominated Diphenyl Ether (DecaBDE) 十溴聯苯醚	ppm		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 Black electronic component (mixed all parts)	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	50
Dibutyl Phthalate (DBP) 鄰苯二甲酸二丁酯	ppm		ND	50
Benzyl Butyl Phthalate (BBP) 鄰苯二甲酸苯基丁酯	ppm		ND	50
Diisobutyl Phthalate (DIBP) 鄰苯二甲酸二異丁酯	ppm		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。	ND	50
Chlorine (Cl) 氯	ppm		ND	50
Bromine (Br) 溴	ppm		ND	50
Iodine (I) 碘	ppm		ND	50

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 : Andy Yu / Vita Fu

Date Sample Received 樣品收件日期 : Jul 09, 2025
Test Period 樣品測試期間 : Jul 09, 2025 to Jul 16, 2025

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Test Conducted 測試內容：

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(VI)) 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)

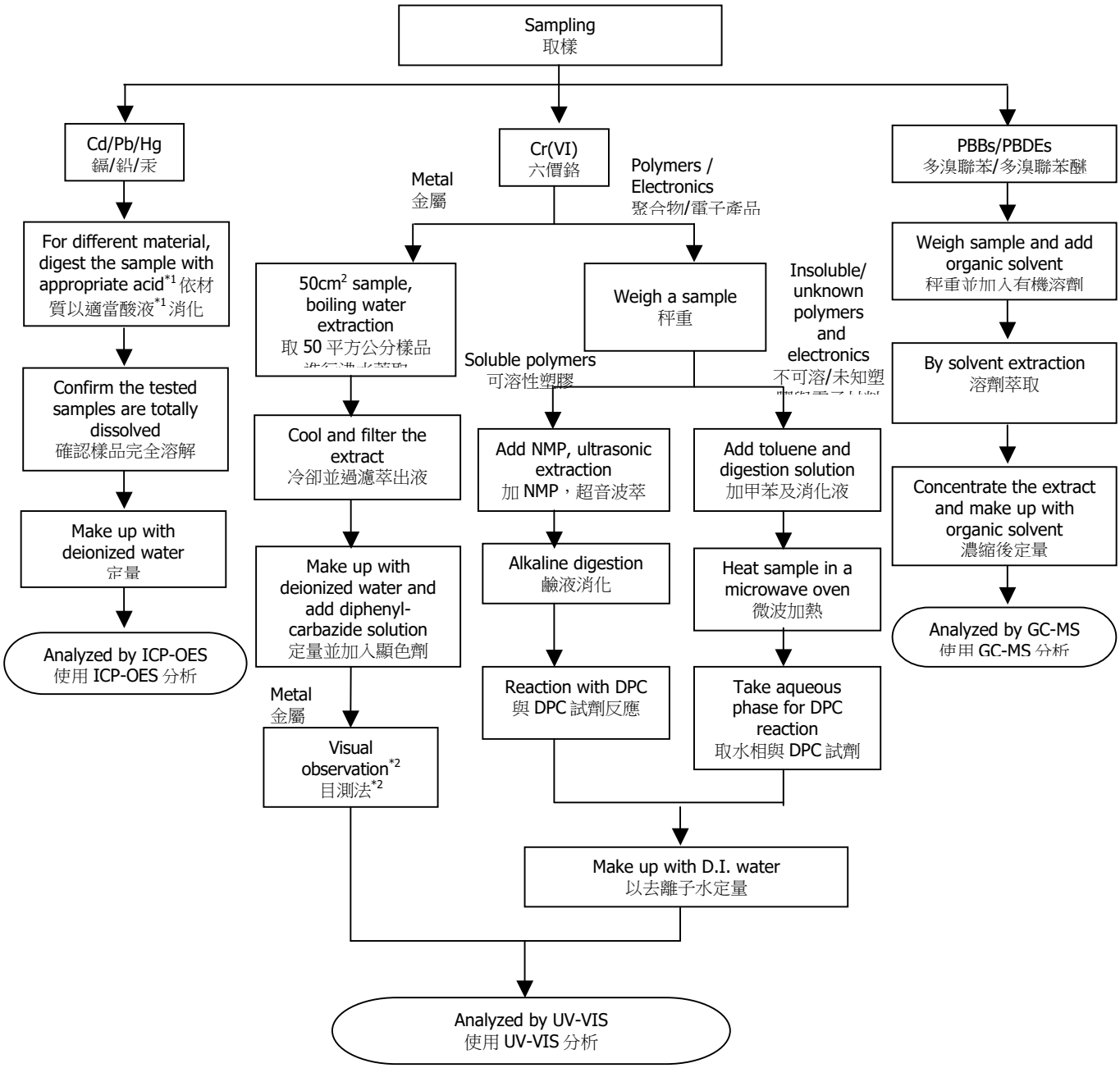
The limits were quoted from Annex II of 2011/65/EU and Amendment (EU) 2015/863 for homogeneous material.
本限值是依據歐盟指令 2011/65/EU 及其更新指令(EU) 2015/863 之附錄二針對均質材質所訂定。

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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：

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

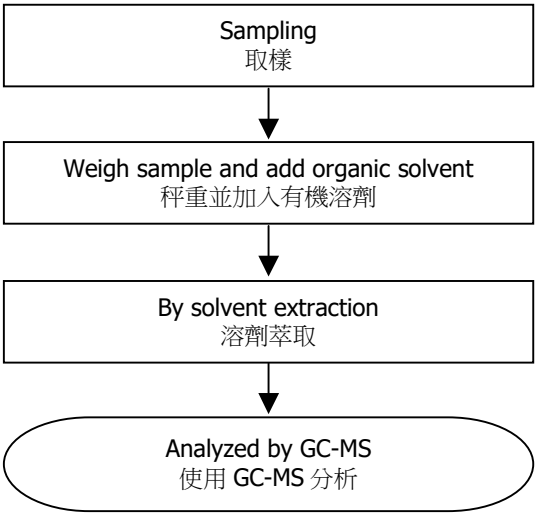
*2: If sample solution is significantly more intense than 0.13 μg/cm^2 equivalent comparison standard, Chromium VI would be determined as detected, the result of visual observation is positive.
當待測樣品溶液顏色明顯比 0.13 μg/cm^2 深，採用目測法判定六價鉻結果為陽性。

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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

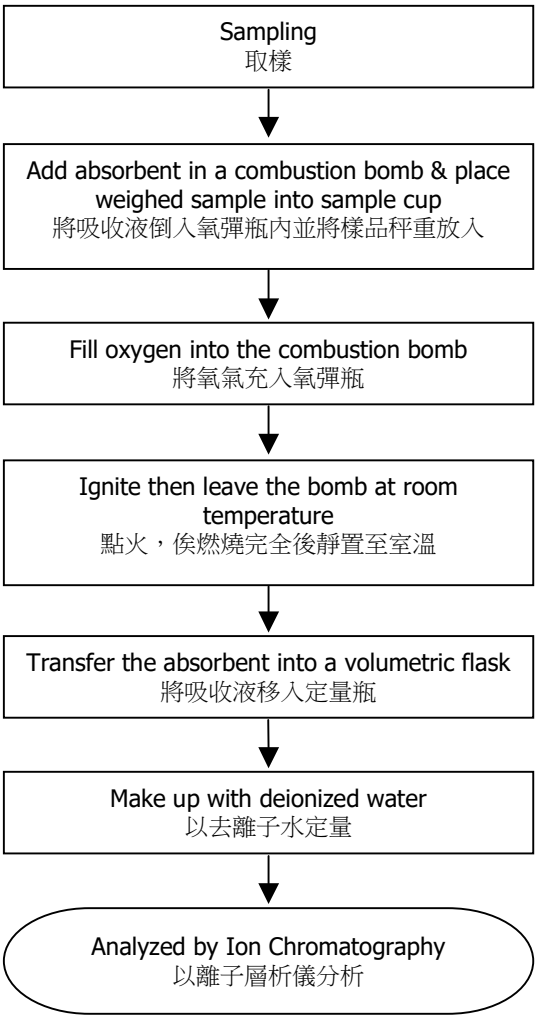


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Test Conducted 測試內容：

Measurement Flowchart 測試流程圖:

Test for Halogen Content 鹵素測試
Reference Method 參考方法：EN 14582:2016



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Sample photo 樣品照片：





End of Report

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