

**Test Report** 

號碼(No.): CE/2016/61828

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佑星興業有限公司 YOU XING ENTERPRISE CO., LTD. 桃園市龜山區振興路1173之1號 NO. 1173-1, JHENSING RD., GUEISHAN DISTRICT, TAOYUAN CITY 333, 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) : 佑星興業有限公司 (YOU XING ENTERPRISE CO., LTD.)

送樣廠商(Sample Submitted By)	:	佑星興業有限公司(YOU XING ENTERPRISE CO., LTD.)
樣品名稱(Sample Description)	:	THERMALLY CONDUCTIVE PHASE CHANGE(導熱相變化材)
樣品型號(Style/Item No.)	:	AC-800-系列 (AC-800-SERIES)
收件日期(Sample Receiving Date)	:	2016/06/08
測試期間(Testing Period)	:	2016/06/08 TO 2016/06/16

#### 測試需求(Test Requested):

- (1) 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.)
- (2) 其他測試項目請見下一頁. (Please refer to next pages for the other item(s).)

**测试结果(Test Results)** : 請見下一頁 (Please refer to next pages).



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### <u>測試結果(Test Results)</u>

測試部位(PART NAME)No.1 : 灰色墊片(不含離型膜及離型紙)(GRAY PAD (EXCLUDING THE RELEASE FILM AND RELEASE PAPER))

测試項目 (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	n. d.
鉛 / Lead (Pb)	mg/kg	参考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.
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)	mg/kg	参考IEC 62321 (2008),以UV-VIS檢測. / With reference to IEC 62321 (2008) and performed by UV-VIS.	2	n. d.
鹵素 / Halogen				
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	参考BS EN 14582(2007),以離子層析儀分 析. / With reference to BS EN 14582 (2007). Analysis was performed by IC.	50	n. d.
鹵素(氯)/ Halogen-Chlorine(C1) (CAS No.: 22537-15-1)	mg/kg		50	n. d.
鹵素(溴)/ Halogen-Bromine (Br) (CAS No.: 10097-32-2)	mg/kg		50	n. d.
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)	mg/kg		50	n. d.



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測試項目 (Test Items)	單位 (Unit)	测試方法 (Method)	方法偵測 極限值	結果 (Result)
(Test Items)		(method)	(MDL)	No. 1
多溴聯苯總和 / Sum of PBBs	mg/kg		-	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	参考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.	5	n. d.
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		-	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.



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测試項目 (Test Items)	單位 (Unit)	测試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) No.1
鄰苯二甲酸丁苯甲酯 / BBP(Butyl Benzyl phthalate)(CAS No.: 85-68-7)	mg/kg		50	n. d.
鄰苯二甲酸二丁酯 / DBP(Dibutyl phthalate)(CAS No.: 84-74-2)	mg/kg	參考IEC 62321-8/CD (2013),以氣相層析儀/ 質譜儀檢測. / With reference to IEC 62321-8/CD (2013). Analysis was performed by GC/MS.	50	n. d.
鄰苯二甲酸二異丁酯 / DIBP (Di- isobutyl phthalate) (CAS No.: 84-69- 5)	mg/kg		50	n. d.
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.
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C (2007),以液相層析/質譜 儀檢測. / With reference to US EPA 3550C	10	n. d.
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg	(2007). Analysis was performed by LC/MS.	10	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)

### PFOS参考資訊(Reference Information): 持久性有機污染物 POPs - (EU) 757/2010

PFOS濃度在物質或製備中不得超過0.001%(10ppm),在半成品、成品或零部件中不得超過0.1%(1000ppm),在紡織品或 塗層材料中不得超過1µg/m<sup>2</sup>。

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above  $1\mu g/m^2$ .)



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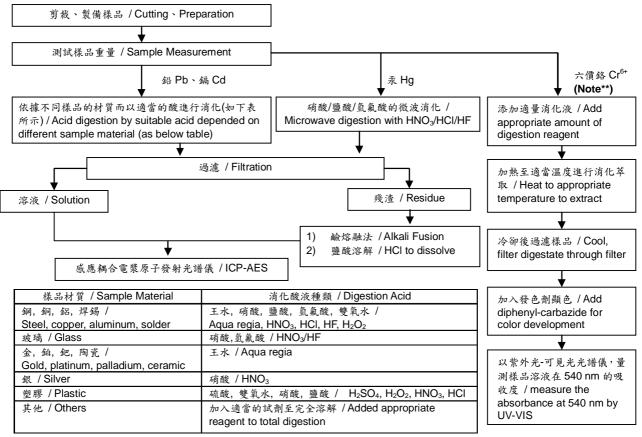
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根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)

- 測試人員:王志瑋 / Technician : JR Wang
- 測試負責人:張啟興 / Supervisor: Troy Chang



#### Note\*\* (For IEC 62321)

- (1) 針對非金屬材料加入鹼性消化液,加熱至 90~95℃萃取. / For non-metallic material, add alkaline digestion reagent and heat to 90~95℃.
- (2) 針對金屬材料加入純水,加熱至沸腾萃取. / For metallic material, add pure water and heat to boiling.



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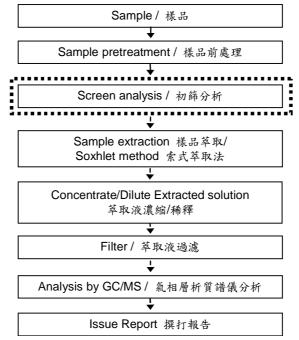
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#### 多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE

■ 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 \_ - - - →





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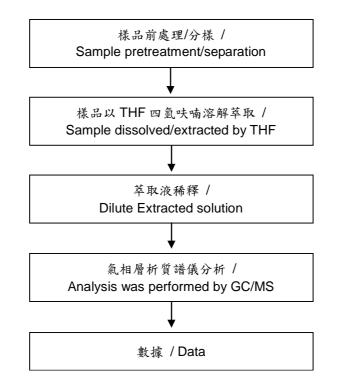
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#### <u>可塑劑分析流程圖 / Analytical flow chart - Phthalate</u>

- 測試人員:徐毓明 / Technician: Andy Shu
- 測試負責人:張啟興 / Supervisor nt: Troy Chang

#### 【测試方法/Test method: IEC 62321-8】





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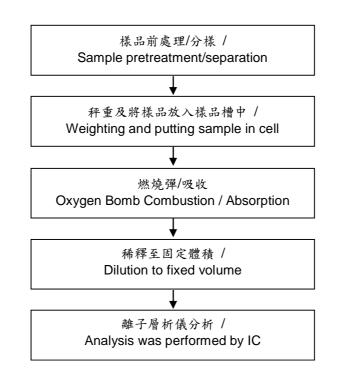
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#### <u> 鹵素分析流程圖 / Analytical flow chart - Halogen</u>

- 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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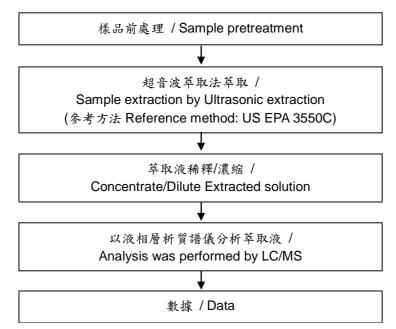
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### 全氟辛酸/全氟辛烷磺酸分析流程圖 / Analytical flow chart - PFOA/PFOS

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





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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.)

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\*\* 報告結尾 (End of Report) \*\*

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