

測試報告

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 1 of 7

Test Report

台灣化學纖維股份有限公司

FORMOSA CHEMICALS & FIBRE CORPORATION

台北市敦化北路201號

201, TUNG HWA N. ROAD, TAIPEI, 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) : 台灣化學纖維股份有限公司 (FORMOSA CHEMICALS & FIBRE CORPORATION)
樣品名稱(Sample Description) : POLYPROPYLENE HOMO POLYMER (聚丙烯單聚物)
樣品型號(Style/Item No.) : TAIRIPRO PP B1101, F1611, F2003, F2011, K1011, K1011AH, K1011AT, K1023, K1035, K1060, K1080, K1108, K1525, K1P12, K1P35, K1P38, K2038, K2051, K2065, S1003, S1005, S1019, S1023, S1040, S1803, S2023, S2035, S2123, T1002, T1202, T2502
收件日期(Sample Receiving Date) : 2017/04/20
測試期間(Testing Period) : 2017/04/20 TO 2017/04/26

=====
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.)
測試方法(Test Method) : 請見下一頁 (Please refer to next pages).
測試結果(Test Results) : 請見下一頁 (Please refer to next 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 samples, 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.)


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

測試報告

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 2 of 7

Test Report

台灣化學纖維股份有限公司

FORMOSA CHEMICALS & FIBRE CORPORATION

台北市敦化北路201號

201, TUNG HWA N. ROAD, TAIPEI, TAIWAN, R. O. C.



測試結果(Test Results)

測試部位(PART NAME)No. 1 : 半透明白色塑膠粒 (TRANSLUCENT-WHITE 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) | 限值 (Limit) |
|---|--------------|--|----------------------|----------------|---------------|
| | | | | 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. | 100 |
| 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 | 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 (2008), 以UV-VIS檢測. / With reference to IEC 62321 (2008) and performed by UV-VIS. | 2 | n. d. | 1000 |
| 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/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. | 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 |

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

測試報告

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 3 of 7

Test Report

台灣化學纖維股份有限公司

FORMOSA CHEMICALS & FIBRE CORPORATION

台北市敦化北路201號

201, TUNG HWA N. ROAD, TAIPEI, 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) | 限值 (Limit) |
|----------------------------------|--------------|---|----------------------|----------------|---------------|
| | | | | No. 1 | |
| 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. | - |
| 多溴聯苯醚總和 / Sum of PBDEs | mg/kg | | - | 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)

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

測試報告 Test Report

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 4 of 7

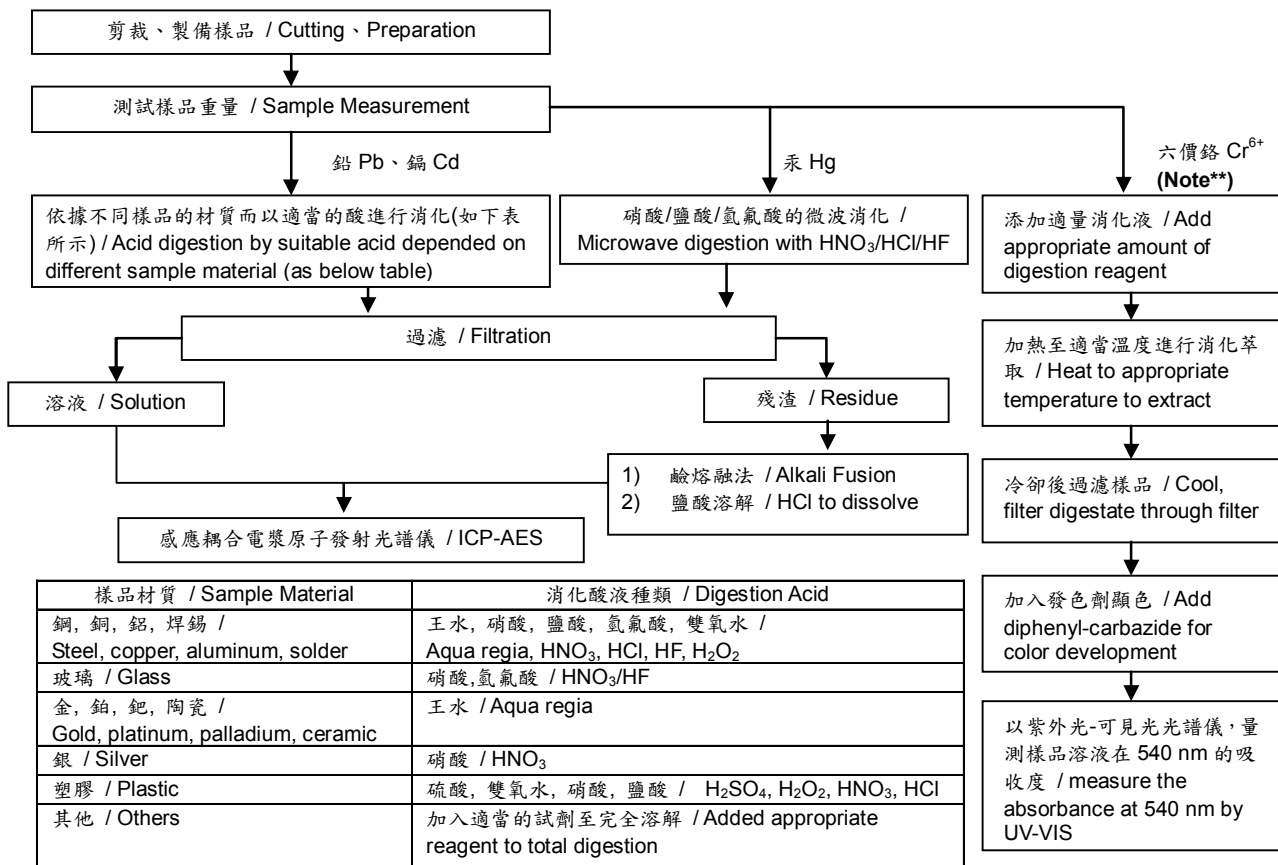
台灣化學纖維股份有限公司
FORMOSA CHEMICALS & FIBRE CORPORATION
台北市敦化北路201號
201, TUNG HWA N. ROAD, TAIPEI, TAIWAN, R. O. C.



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. (Cr⁶⁺ 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°C 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
- (2) 針對金屬材料加入純水，加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/IEC-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

測試報告

Test Report

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 5 of 7

台灣化學纖維股份有限公司

FORMOSA CHEMICALS & FIBRE CORPORATION

台北市敦化北路201號

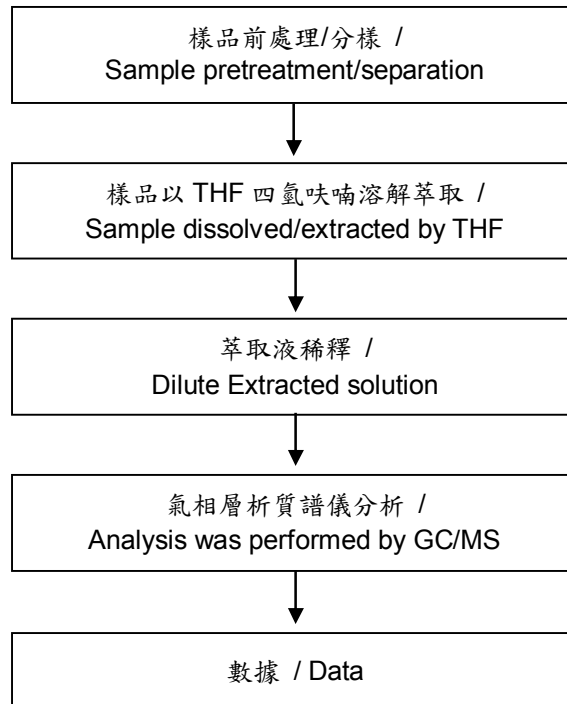
201, TUNG HWA N. ROAD, TAIPEI, TAIWAN, R. O. C.



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

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

【測試方法/Test method: IEC 62321-8】



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

測試報告 Test Report

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 6 of 7

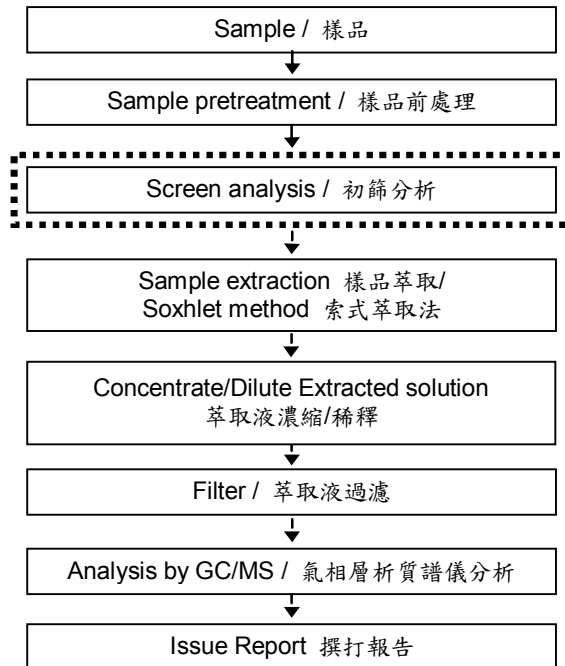
台灣化學纖維股份有限公司
FORMOSA CHEMICALS & FIBRE CORPORATION
台北市敦化北路201號
201, TUNG HWA N. ROAD, TAIPEI, TAIWAN, R. O. C.



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 - - ->



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

測試報告

Test Report

號碼(No.) : CE/2017/43900 日期(Date) : 2017/04/26

頁數 (Page) : 7 of 7

台灣化學纖維股份有限公司

FORMOSA CHEMICALS & FIBRE CORPORATION

台北市敦化北路201號

201, TUNG HWA N. ROAD, TAIPEI, TAIWAN, R. O. C.



* 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/2017/43900



** 報告結尾 (End of Report) **

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Termse-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.