

Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號

NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

頁數(Page): 1 of 16

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):

號碼(No.): CE/2016/22040 日期(Date): 2016/02/19

送樣廠商(Sample Submitted By) 南亞塑膠工業股份有限公司 (NAN YA PLASTICS CORPORATION)

樣品名稱(Sample Description) NAN YA NON-ORIENTED CASTING POLYPROPYLENE FILM (南亞無延伸聚丙烯膜)

收件日期(Sample Receiving Date) 2016/02/15

2016/02/15 TO 2016/02/19 測試期間(Testing Period)

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測試編、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, 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).)

請見下一頁 (Please refer to next pages). 測試結果(Test Results) :

結論(Conclusion) :

(1) 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.)



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN 頁數(Page): 2 of 16

測試結果(Test Results)

測試部位(PART NAME)No.1 : 透明塑膠膜(TRANSPARENT PLASTIC FILM)

號碼(No.): CE/2016/22040

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限値 (MDL)	結果 (Result) No.1	限值 (Limit)
鏋 / Cadmium (Cd)	mg/kg	参考IEC 62321-5: 2013方法, 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方法, 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	参考IEC 62321: 2008方法,以UV-VIS 檢測. / With reference to IEC 62321: 2008 and performed by UV- VIS.	2	n. d.	1000
多溴聯苯總和 / Sum of PBBs	mg/kg	参考IEC 62321-6: 2015方法, 以氣相 5 層析/質譜儀檢測. / With reference to IEC 62321-6: 2015 and performed by GC/MS. 5	-	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.	-
へ溴聯苯 / Octabromobiphenyl	mg/kg		5	n. d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg			n. d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n. d.	_

日期(Date): 2016/02/19



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

結果 方法偵測 測試方法 測試項目 單位 限值 極限值 (Result) (Test Items) (Unit) (Method) (Limit) (MDL) No. 1 多溴聯苯醚總和 / Sum of PBDEs 1000 mg/kg n. d. 一溴聯苯醚 / Monobromodiphenyl ether mg/kg 5 n. d. 二溴聯苯醚 / Dibromodiphenyl ether 5 n. d. mg/kg 三溴聯苯醚 / Tribromodiphenyl ether 5 n. d. mg/kg 參考IEC 62321-6: 2015方法, 以氣相 四溴聯苯醚 / Tetrabromodiphenyl ether 5 n. d. mg/kg 層析/質譜儀檢測. / With reference 五溴聯苯醚 / Pentabromodiphenyl ether 5 n. d. mg/kg to IEC 62321-6: 2015 and performed 5 六溴聯苯醚 / Hexabromodiphenyl ether n. d. _ mg/kg by GC/MS. 七溴聯苯醚 / Heptabromodiphenyl ether 5 n. d. mg/kg 八溴聯苯醚 / Octabromodiphenyl ether 5 mg/kg n. d. 5 九溴聯苯醚 / Nonabromodiphenyl ether n. d. mg/kg 十溴聯苯醚 / Decabromodiphenyl ether 5 n. d. mg/kg 鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl 50 n. d. 1000 mg/kg phthalate) (CAS No.: 84-69-5) 鄰苯二甲酸二丁酯 / DBP (Dibutyl 1000 50 n. d. mg/kg phthalate) (CAS No.: 84-74-2) 鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl 50 n. d. 1000 mg/kg phthalate) (CAS No.: 85-68-7) 鄰苯二甲酸二 (2-乙基己基)酯 / DEHP (Di-50 1000 mg/kg n. d. 參考IEC 62321-8 (111/321/CD),以氣 (2-ethylhexyl) phthalate) (CAS No.: 117-相層析儀/質譜儀檢測之. / With 81-7) reference to IEC 62321-8 鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl (111/321/CD). Analysis was 50 n. d. mg/kg phthalate) (CAS No.: 117-84-0) performed by GC/MS. 鄰苯二甲酸二異壬酯 / DINP (Di-isononyl 50 n. d. mg/kg phthalate) (CAS No.: 28553-12-0; 68515-48-0)鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl 50 mg/kg n. d. phthalate) (CAS No.: 26761-40-0; 68515-49-1)

日期(Date): 2016/02/19

頁數(Page): 3 of 16



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號

NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

頁數(Page): 4 of 16

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)
鹵素 / Halogen				1.07 1	
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.	-
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考US EPA 3550C: 2007方法,以液相層析/質譜儀檢測. / With reference to US EPA 3550C: 2007. Analysis was performed by LC/MS.	10	n. d.	-
全氟辛酸 / PFOA (CAS No.: 335-67-1)	mg/kg		10	n. d.	-
多氯聯苯 / Polychlorinated Biphenyls (PCBs) (CAS No.: 1336-36-3)	mg/kg	參考US EPA 3550C方法,以氣相層析/ 質譜儀檢測. / With reference to US EPA 3550C method. Analysis was	0.5	n. d.	-
多氯奈 / Polychlorinated Naphthalene (PCNs)	mg/kg		5	n. d.	-
多氯三聯苯 / Polychlorinated Terphenyls (PCTs)	mg/kg		0.5	n. d.	-
短鏈氯化石蠟 / Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 85535-84-8)	mg/kg	-performed by GC/MS.	100	n. d.	-
銻 / Antimony (Sb)	mg/kg	參考US EPA 3052方法,以感應耦合電 漿原子發射光譜儀檢測./ With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n. d.	_
砷 / Arsenic (As)	mg/kg		2	n. d.	
鋇 / Barium (Ba)	mg/kg		2	n. d.	_
硒 / Selenium (Se)	mg/kg		2	n. d.	-

日期(Date): 2016/02/19



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN



頁數(Page): 5 of 16

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

號碼(No.): CE/2016/22040

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/m²。

日期(Date): 2016/02/19

(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 $1\mu g/m^2$.)



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號

NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

頁數(Page): 6 of 16

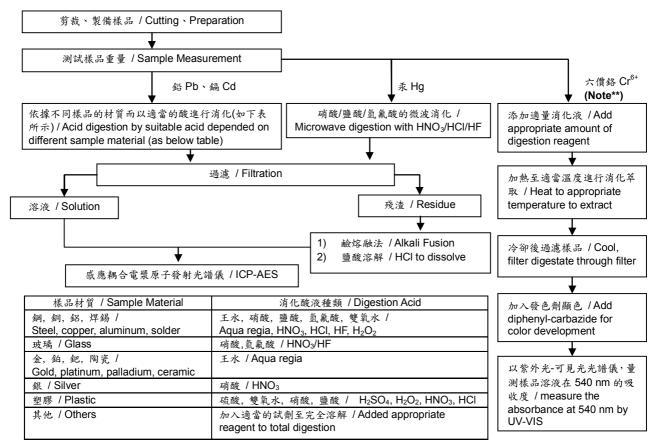
根據以下的流程圖之條件,樣品已完全溶解。(六價鉻測試方法除外)

號碼(No.): CE/2016/22040

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6^+} test method excluded)

日期(Date): 2016/02/19

- 測試人員:楊登偉 / Technician: Climbgreat Yang
- 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
- (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.



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號

NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN



頁數(Page): 7 of 16

根據以下的流程圖之條件,樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.

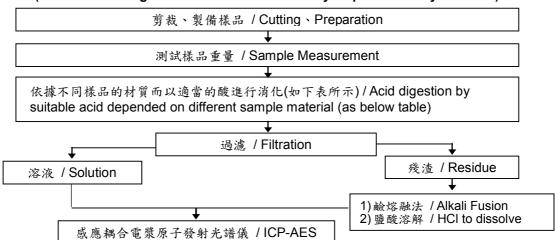
■ 測試人員:楊登偉 / Technician: Climbgreat Yang

號碼(No.): CE/2016/22040

測試負責人:張啟興 / Supervisor: Troy Chang

元素以 ICP-AES 分析的消化流程圖 (Flow Chart of digestion for the elements analysis performed by ICP-AES)

日期(Date): 2016/02/19



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水/
	Aqua regia, HNO ₃ , HCI, HF, H ₂ O ₂
玻璃 / Glass	硝酸,氫氟酸 / HNO ₃ /HF
金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCI
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion



Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040



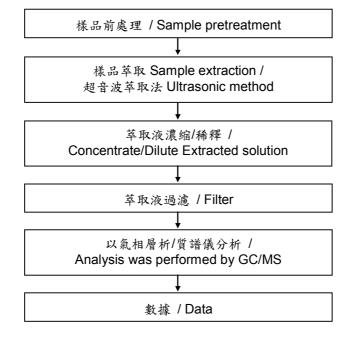
頁數(Page): 8 of 16

<u> 氯化石蠟分析流程圖 / Analytical flow chart - Chlorinated Paraffins</u>

日期(Date): 2016/02/19

■ 測試人員:林建宇 / Technician: Roy Lin

■ 測試負責人:張啟興 / Supervisor: Troy Chang





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

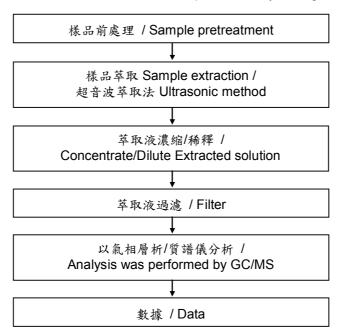
頁數(Page): 9 of 16

多氯三聯苯分析流程圖 / Analytical flow chart - PCTs

日期(Date): 2016/02/19

測試人員:曾勃鈞 / Technician: Barry Tseng

測試負責人:張啟興 / Supervisor: Troy Chang





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

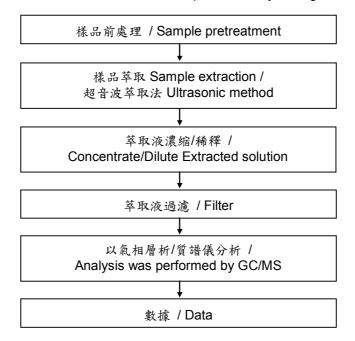
頁數(Page): 10 of 16

<u>多氯奈分析流程圖 / Analytical flow chart - PCNs</u>

日期(Date): 2016/02/19

■ 測試人員:林建宇 / Technician: Roy Lin

■ 測試負責人:張啟興 / Supervisor: Troy Chang





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

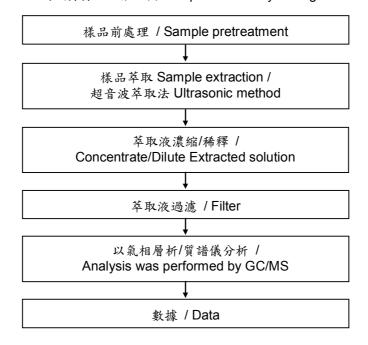
號碼(No.): CE/2016/22040

頁數(Page): 11 of 16

多氯聯苯分析流程圖 / Analytical flow chart - PCBs

日期(Date): 2016/02/19

- 測試人員:林建宇 / Technician: Roy Lin
- 測試負責人:張啟興 / Supervisor: Troy Chang





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

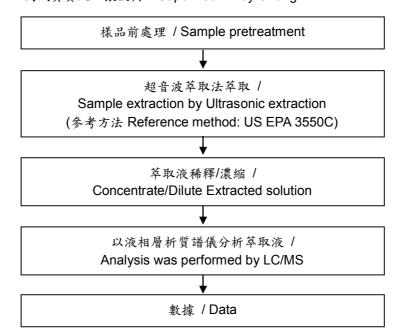


頁數(Page): 12 of 16

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

日期(Date): 2016/02/19

測試人員: 翁賜彬 / Technician: Roman Wong 測試負責人:張啟興 / Supervisor: Troy Chang





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

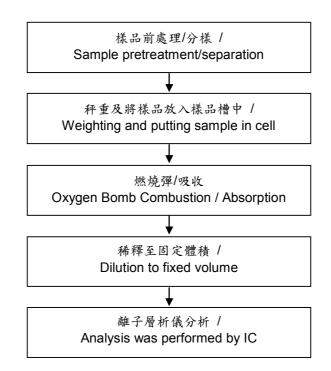
頁數(Page): 13 of 16

鹵素分析流程圖 / Analytical flow chart - Halogen

日期(Date): 2016/02/19

測試人員:陳恩臻 / Technician: Rita Chen

測試負責人:張啟興 / Supervisor: Troy Chang





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

頁數(Page): 14 of 16

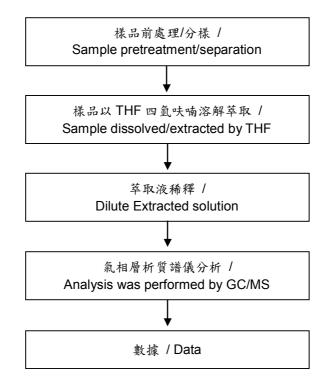
可塑劑分析流程圖 / Analytical flow chart - Phthalate

日期(Date): 2016/02/19

測試人員:徐毓明 / Technician: Andy Shu

測試負責人:張啟興 / Supervisor nt: Troy Chang

【測試方法/Test method: IEC 62321-8】





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN 頁數(Page): 15 of 16

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

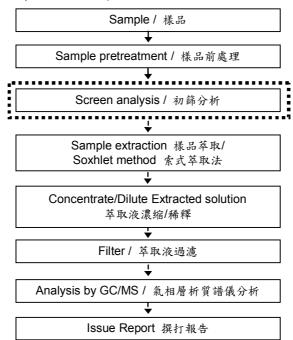
日期(Date): 2016/02/19

測試人員: 翁賜彬 / Technician: Roman Wong 測試負責人:張啟興 / Supervisor: Troy Chang

號碼(No.): CE/2016/22040

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 _ · _ · ▶





Test Report

南亞塑膠工業股份有限公司 NAN YA PLASTICS CORPORATION 新北市泰山區南林路102號 NO. 102, NANLIN RD., TAISHAN DIST., NEW TAIPEI CITY, TAIWAN

號碼(No.): CE/2016/22040

頁數(Page): 16 of 16

* 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.)

日期(Date): 2016/02/19

CE/2016/22040



** 報告結尾 (End of Report) **