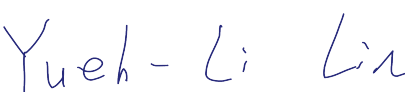



Test Report No.: 0114084999f3 001		Page 1 of 5 第 1 頁 共 5 頁	
Client: 委託客戶:		FORMOSA PLASTICS CORPORATION/台灣塑膠工業股份有限公司 No. 1, Formosa Industrial Complex, Mailiao, Yunlin 638, Taiwan, R.O.C./ 台灣 雲林縣麥寮鄉 638 台塑工業園區 1 號	
Test Item: 測試樣品:		1 plastic, white / 塑膠, 白色	
Identification: 品名型號:		台塑烯 HDPE 管級聚合物/Taisox HDPE Pipe Grade Polymer / 8001, 8001U, 8100RT	
Delivery condition: 送達狀況:		apparent good/外觀良好	Date of Receipt: 2018-12-17 到件日期(年.月.日):
Testing location: 測試地點:		TÜV Rheinland (Shanghai) Co. Ltd.	
Test specification: 測試項目:		According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU last amended by (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)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	
Test result: 測試結果:		According to the kind and extend of tests performed the above mentioned test item passed/合格 the test specification.	
tested by / 測試人員:		checked by / 查核人員:	
 Yueh-Li Lin 2019-01-10 Yueh-Li Lin /Senior Project Coordinator		 Tammy Wang 2019-01-10 Tammy Wang /Assistant Manager	
Date 日期	Name/Position 姓名/職稱	Signature 簽名	Date 日期
Other Aspects:/ 其他:			
Test period/測試時間: 2018-12-17 – 2019-01-10			
The test sample is model no. 8001.			
Model no. 8001 and others are same material as client's declaration dated on 2018-12-17.			
Abbreviations:		說明:	
ok / P = passed (合格)		ok / P = 合格	
fail / F = failed (不合格)		fail / F = 不合格	
n.a. / N = not applicable (不適用)		n.a. / N = 不適用	
This test report relates to the a. m. 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. 此份測試報告只涉及上述測試樣品。未經測試單位許可不可摘要複製報告。此份報告並無授權任何安全標章的使用於此測試產品或相似產品。			



Test Report No./報告號碼 : 0114084999f3 001 2019-01-10
 Customer/公司名稱 : FORMOSA PLASTICS CORPORATION/台灣塑膠工業股份有限公司
 Test Method/測試方法 : Total Cadmium/鎘, Lead/鉛, Mercury/汞, Chromium/鉻
 - Ref. to/參考 IEC 62321-4:2013 and IEC 62321-5:2013
 Chromium (VI)/六價鉻
 - For Metal material/金屬 - Ref. to/參考 IEC 62321-7-1:2015
 - For Plastic or Electronic material/塑膠或電子材料 - Ref. to/參考 IEC 62321-7-2:2017
 - For Leather material/皮料 - Ref. to/參考 EN ISO 17075-1:2017
 PBBs/多溴聯苯, PBDEs/多溴二苯醚 - Ref. to/參考 IEC 62321-6:2015

Sample/樣品明細	LoD	台塑烯 HDPE 管級聚合物/Taisox HDPE Pipe Grade Polymer plastic/ white / 塑膠/白色 TCL181217-08
Material/材質		
Lab.-No./實驗室編號		
Cadmium (Cd) / 鎘	mg/kg	2
Lead (Pb) / 鉛	mg/kg	2
Mercury (Hg) / 汞	mg/kg	2
Chromium VI (Cr VI) / 六價鉻*	mg/kg	10
Sum of Polybrominated biphenyls (PBBs) / 多溴聯苯	mg/kg	-
Monobromobiphenyl	mg/kg	5
Dibromobiphenyl	mg/kg	5
Tribromobiphenyl	mg/kg	5
Tetrabromobiphenyl	mg/kg	5
Pentabromobiphenyl	mg/kg	5
Hexabromobiphenyl	mg/kg	5
Heptabromobiphenyl	mg/kg	5
Octabromobiphenyl	mg/kg	5
Nonabromobiphenyl	mg/kg	5
Decabromobiphenyl	mg/kg	5
Sum of Polybrominated diphenyl ethers (PBDEs) / 多溴二苯醚	mg/kg	-
Monobromodiphenyl ether	mg/kg	5
Dibromodiphenyl ether	mg/kg	5
Tribromodiphenyl ether	mg/kg	5
Tetrabromodiphenyl ether	mg/kg	5
Pentabromodiphenyl ether	mg/kg	5
Hexabromodiphenyl ether	mg/kg	5
Heptabromodiphenyl ether	mg/kg	5
Octabromodiphenyl ether	mg/kg	5
Nonabromodiphenyl ether	mg/kg	5
Decabromodiphenyl ether	mg/kg	5

Notes/ 註釋:

- n.d. - not detected/未檢出 ; - n.a. - not applicable/不適用 ; - LoD - Limit of Detection/偵測極限
- mg/kg is equal to ppm (parts per million) 毫克/公斤等同於百萬分之一, 以樣品重量計
- * Once the total Cr content in metal/ plastic or electronic sample is found to be exceeded the limit, the Cr (VI) content will be confirmed with reference to IEC 62321-7-1:2015/ IEC 62321-7-2:2017/ 一旦金屬/塑膠/電子樣品內總鉻含量超過最大允許限值, 六價鉻含量將依照 IEC 62321-7-1:2015/ IEC 62321-7-2:2017 進行確認。

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

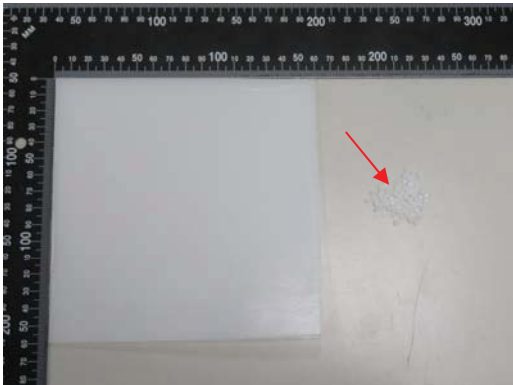
Test Report No./報告號碼 : 0114084999f3 001 2019-01-10
 Customer/公司名稱 : FORMOSA PLASTICS CORPORATION/台灣塑膠工業股份有限公司
 Test Method/測試方法 : BBP/DBP/DEHP/DIBP - Ref. to IEC 62321-8:2017 / 參考 IEC 62321-8:2017

Sample/樣品明細	LoD	台塑烯 HDPE 管級聚合物/Taisox HDPE Pipe Grade Polymer plastic/ white / 塑膠/白色 TCL181217-08
Material/材質 Lab.-No./實驗室編號		
Benzylbutylphthalate (BBP) /鄰苯二甲酸苯基丁酯	mg/kg	50
Dibutylphthalate (DBP) /鄰苯二甲酸二丁酯	mg/kg	50
Diethylhexylphthalate (DEHP) /鄰苯二甲酸二(2-乙基己基)酯	mg/kg	50
Diisobutylphthalate (DIBP) /鄰苯二甲酸二異丁酯	mg/kg	50

Notes/ 註釋:

- n.d. - not detected/未檢出 ; - n.a. - not applicable/不適用 ; - LoD - Limit of Detection/偵測極限
- mg/kg is equal to ppm (parts per million) 毫克/公斤等同於百萬分之一, 以樣品重量計

	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
Maximum permissible Limit acc. to (EU) 2015/863 (mg/kg) / 極限值	1000	1000	1000	1000

Test Sample/測試樣品


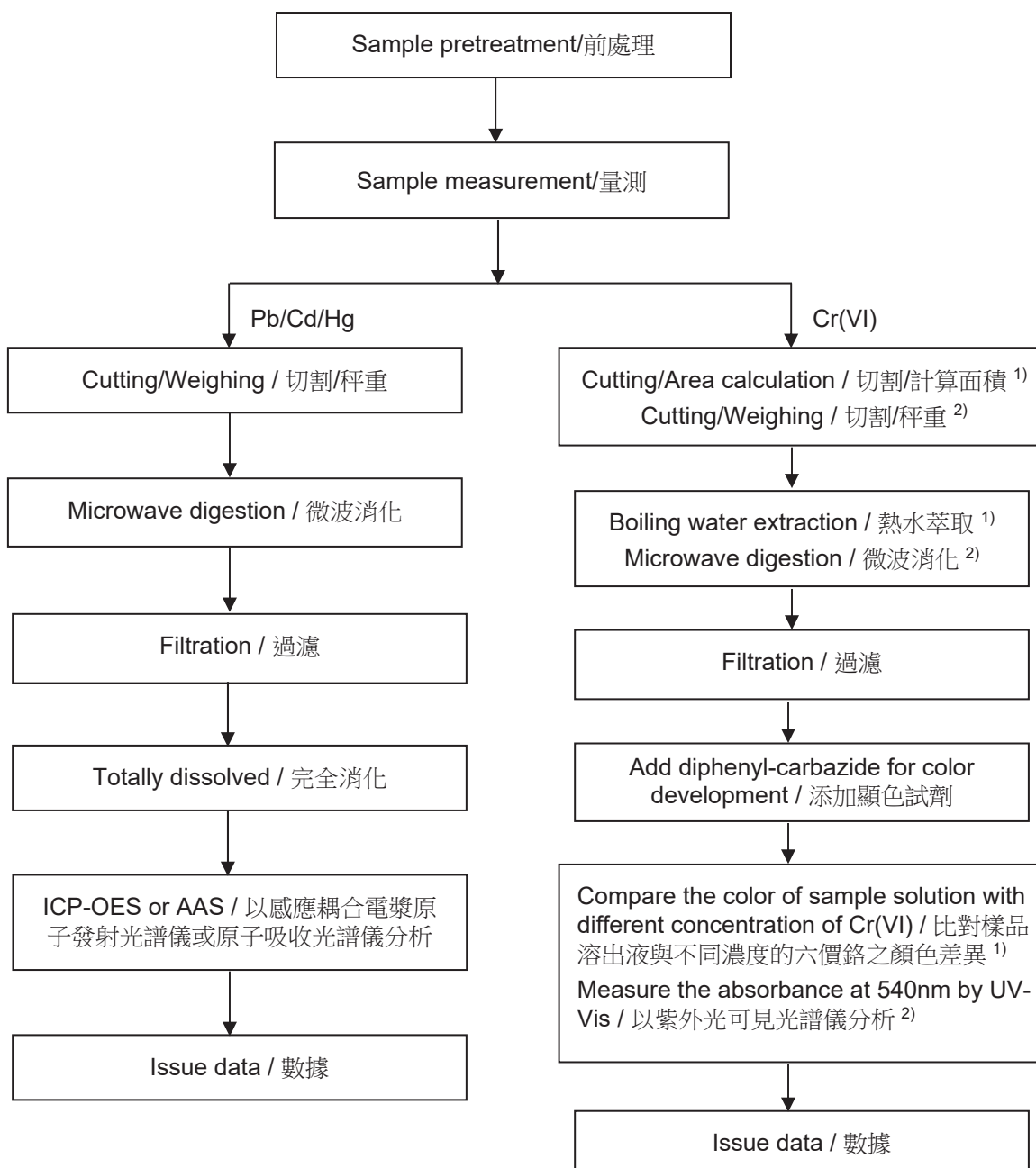
Test Report No./報告號碼 : 0114084999f3 001

2019-01-10

Customer/公司名稱 : FORMOSA PLASTICS CORPORATION/台灣塑膠工業股份有限公司

Testing procedure / 測試流程圖 :

RoHS (Pb/鉛, Cd/鎘, Hg/汞, Cr(VI)/六價鉻)



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

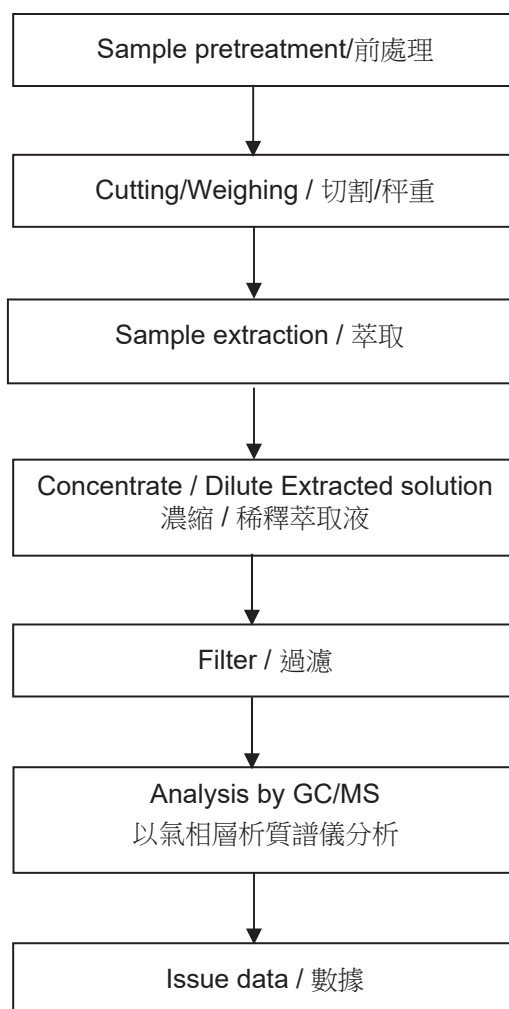
Test Report No./報告號碼 : 0114084999f3 001

2019-01-10

Customer/公司名稱 : FORMOSA PLASTICS CORPORATION/台灣塑膠工業股份有限公司

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)



--- End of Test-Report / 此報告結束---