

測試報告 Test Report

號碼(No.) : KE/2010/40799 日期(Date) : 2010/04/15 頁數(Page) : 1 of 5

台灣塑膠工業股份有限公司
FORMOSA PLASTICS CORPORATION
高雄縣林園鄉溪州村石化一路1號之一
NO.1, SHIHUA 1ST RD., LINYUAN TOWNSHIP, KAOHSIUNG COUNTY
832, TAIWAN (R.O.C.)



以下測試樣品係由客戶送樣，且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as) :

樣品名稱(Sample Description) : 無規共聚物聚丙烯 (POLYPROPYLENE RANDOM COPOLYMER)
樣品型號(Style/Item No.) : 5003,5018,5018T,5020,5050,5050M,5060,5060T,5070,5071,5070M,5090T
5200,5250T,5350T
樣品顏色(Color) : 白色半透明 (CLEAR)
收件日期(Sample Receiving Date) : 2010/04/09
測試期間(Testing Period) : 2010/04/09 TO 2010/04/15

=====
測試需求(Test Requested) : 參照多苯環芳香族化合物及其修定指令要求。(To determine Polynuclear Aromatic Hydrocarbons (PAHs).)
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，其多苯環芳香族化合物的測試結果符合德國ZLS的ZEK 01.2-08及其相關修訂文件中的第1類PAHs要求 (Base upon the performed tests by submitted samples, the test results of PAHs **comply with** the PAHs requirement according to (Category X) of ZEK 01.2-08 of German ZLS and its amendments.)

Ray Chang / Asst. Manager
Signed for and on behalf of
SGS Taiwan Limited

測試報告 Test Report

號碼(No.) : KE/2010/40799

日期(Date) : 2010/04/15

頁數(Page) : 2 of 5

台灣塑膠工業股份有限公司

FORMOSA PLASTICS CORPORATION

高雄縣林園鄉溪州村石化一路1號之一

NO.1, SHIHUA 1ST RD., LINYUAN TOWNSHIP, KAOHSIUNG COUNTY

832, TAIWAN (R.O.C.)



測試結果(Test Results)

測試部位(PART NAME) NO.1 : 白色半透明無規共聚物聚丙烯 (CLEAR POLYPROPYLENE RANDOM COPOLYMER)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值	結果(Result)
				NO.1
多苯環芳香族化合物 / Polynuclear Aromatic Hydrocarbons (PAHs)				
Acenaphthene (CAS No.: 000083-32-9)	mg/kg	參考ZLS standard ZEK 01.2-08方法, 以氣相層析質 譜儀(GC/MS)檢測. / With reference to ZLS standard ZEK 01.2-08 method. Analysis was performed by GC/MS.	0.2	n.d.
Acenaphthylene (CAS No.: 000208-96-8)			0.2	n.d.
Anthracene (CAS No.: 000120-12-7)			0.2	n.d.
Benzo[a]anthracene (CAS No.: 000056-55-3)			0.2	n.d.
Benzo[a]pyrene (CAS No.: 000050-32-8)			0.2	n.d.
Benzo[b]fluoranthene (CAS No.: 000205-99-2)			0.2	n.d.
Benzo[g,h,i]perylene (CAS No.: 000191-24-2)			0.2	n.d.
Benzo[k]fluoranthene (CAS No.: 000207-08-9)			0.2	n.d.
Chrysene (CAS No.: 000218-01-9)			0.2	n.d.
Dibenzo[a,h]anthracene (CAS No.: 000053-70-3)			0.2	n.d.
Fluoranthene (CAS No.: 000206-44-0)			0.2	n.d.
Fluorene (CAS No.: 000086-73-7)			0.2	n.d.
Indeno[1,2,3-c,d] pyrene (CAS No.: 000193-39-5)			0.2	n.d.
Naphthalene (CAS No.: 000091-20-3)			0.2	n.d.
Phenanthrene (CAS No.: 000085-01-8)			0.2	n.d.
Pyrene (CAS No.: 000129-00-0)			0.2	n.d.
多苯環芳香族化合物16項總和 / Sum of 16 PAHs			-	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)

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm.
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report 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 instructions, 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. 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.

測試報告 Test Report

號碼(No.) : KE/2010/40799

日期(Date) : 2010/04/15

頁數(Page) : 3 of 5

台灣塑膠工業股份有限公司

FORMOSA PLASTICS CORPORATION

高雄縣林園鄉溪州村石化一路1號之一

NO.1, SHIHUA 1ST RD., LINYUAN TOWNSHIP, KAOHSIUNG COUNTY

832, TAIWAN (R.O.C.)



參考資料(Reference information) :

依據ZEK 01.2-08之要求: 產品中最大值為

(Requirement of ZEK 01.2-08 : Restraining maximum values for products)

項目 (Parameter)	第1類 (Category 1)	第2類 (Category 2)	第3類 (Category 3)
	與食品接觸或放入嘴內的材料, 以及給三歲以下的幼兒使用的玩具. (Materials in contact with foodstuff or materials which are meant to put in the mouth as well as toys for children <36 months.)	持續地(長時間)與皮膚接觸逾30秒, 以及不屬第1類的玩具. (Materials with foreseeable skin contact >30 s (prolonged skin contact) and toys not covered by category 1.)	暫時地(短時間)與皮膚接觸但不逾30秒或不會與皮膚接觸. (Materials with foreseeable skin contact <30 s (short time skin contact) or without skin contact.)
苯駢(a) Benzo[a]pyrene (mg/kg)	<MDL (<0.2)**	1	20
環保署規範16項PAH 總濃度 (Sum of 16 EPA-PAH) (mg/kg)*	<MDL (<0.2)**	10	200

注意(Remark): * = PAH濃度大於0.2mg/kg時, 則須計算PAH總濃度值

(Only PAH substances >0.2 mg/kg are taken into account while calculating the sum of PAHs)

** = 最大濃度值超出等級一的限制, 但在等級二的濃度限制值內時, 可能需要確認測試材質是否合適於食品容器或是依照DIN EN1186ff/ § 64 LFGB 80.30-1方法, 針對特定PAH的遷移測試進行測試。遷移測試的結論需依照食品法規規範

(In case that the maximum values exceed the limits of category 1, but are within the limits of category 2, one may confirm the suitability of the tested material for contact with foodstuff or oral mucosa by additional specific migration tests of PAH components based on DIN EN 1186ff and § 64 LFGB 80.30-1. The conclusion of the migration test results must be made based on food law criteria.)

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明, 此報告結果僅對測試之樣品負責。本報告未經本公司書面許可, 不可部分複製。
This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report 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 instructions, 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. 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.

測試報告 Test Report

號碼(No.) : KE/2010/40799

日期(Date) : 2010/04/15

頁數(Page) : 4 of 5

台灣塑膠工業股份有限公司

FORMOSA PLASTICS CORPORATION

高雄縣林園鄉溪州村石化一路1號之一

NO.1, SHIHUA 1ST RD., LINYUAN TOWNSHIP, KAOHSIUNG COUNTY

832, TAIWAN (R.O.C.)

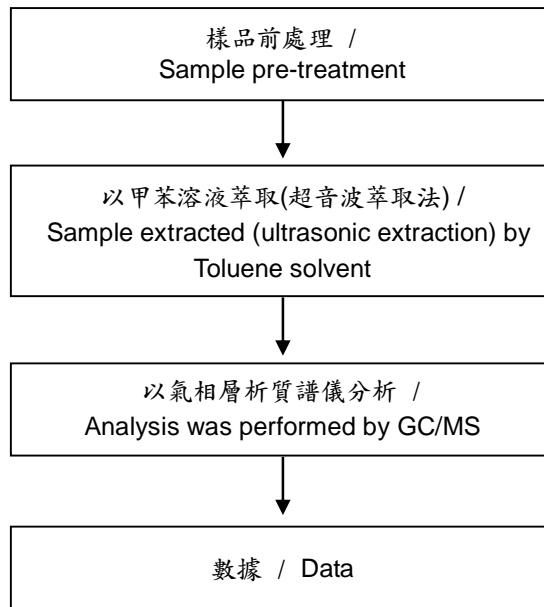


多苯環芳香族化合物分析流程圖 /

PAHs (Poly Aromatic Hydrocarbons) analytical flow chart

1) 測試人員：曹嘉琪 / Name of the person who made measurement: Anson Tsao

2) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report 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 instructions, 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. 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.

測試報告 Test Report

號碼(No.) : KE/2010/40799

日期(Date) : 2010/04/15

頁數(Page) : 5 of 5

台灣塑膠工業股份有限公司

FORMOSA PLASTICS CORPORATION

高雄縣林園鄉溪州村石化一路1號之一

NO.1, SHIHUA 1ST RD., LINYUAN TOWNSHIP, KAOHSIUNG COUNTY

832, TAIWAN (R.O.C.)



** 報告結尾(End of Report) **

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This Test Report is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this Test Report 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 instructions, 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. 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.