

## 測試報告 Test Report

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 1 of 8

ZOTEFOAMS PLC

675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

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)	:	HD SERIES
樣品型號(Style/Item No.)	:	HD GRADES
訂單號碼(Order No.)	:	453013
其他(Other Info.)	:	PLASTAZOTE HD30BK, PLASTAZOTE HD80BK, PLASTAZOTE HD115BK
收件日期(Sample Receiving Date)	:	2014/06/20
測試期間(Testing Period)	:	2014/06/20 TO 2014/06/26
送樣廠商(Sample Submitted By)	:	ZOTEFOAMS PLC

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

  
  
Ray Chang / Asst. Manager  
Signed for and on behalf of  
SGS Taiwan Limited  
Chemical Laboratory-Kaohsiung

# 測試報告 Test Report

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 2 of 8

ZOTEFOAMS PLC

675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

## 測試結果(Test Results)

測試部位(PART NAME) NO.1 : 混測:FOAMS (MIXED ALL PARTS:FOAMS)

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
鎘 / Cadmium (Cd)	mg/kg	參考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.
鉛 / Lead (Pb)	mg/kg	參考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.
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.
六價鉻 / Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	參考IEC 62321: 2008方法, 用UV-VIS檢測. / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
<b>多溴聯苯總和 / Sum of PBBs</b>	mg/kg	參考IEC 62321: 2008方法, 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
一溴聯苯 / Monobromobiphenyl			5	n.d.
二溴聯苯 / Dibromobiphenyl			5	n.d.
三溴聯苯 / Tribromobiphenyl			5	n.d.
四溴聯苯 / Tetrabromobiphenyl			5	n.d.
五溴聯苯 / Pentabromobiphenyl			5	n.d.
六溴聯苯 / Hexabromobiphenyl			5	n.d.
七溴聯苯 / Heptabromobiphenyl			5	n.d.
八溴聯苯 / Octabromobiphenyl			5	n.d.
九溴聯苯 / Nonabromobiphenyl			5	n.d.
十溴聯苯 / Decabromobiphenyl	5	n.d.		

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# 測試報告 Test Report

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 3 of 8

ZOTEFOAMS PLC

675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

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
<b>多溴聯苯醚總和 / Sum of PBDEs</b>	mg/kg	參考IEC 62321: 2008方法, 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
一溴聯苯醚 / Monobromodiphenyl ether			5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether			5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether			5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether			5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether			5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether			5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether			5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether			5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.
十溴聯苯醚 / Decabromodiphenyl ether	5	n.d.		
<b>鹵素 / Halogen</b>	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.		
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 014762-94-8)			50	n.d.
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 022537-15-1)			50	n.d.
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 010097-32-2)			50	n.d.
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 014362-44-8)			50	n.d.

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# 測試報告 Test Report

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 4 of 8

ZOTEFOAMS PLC

675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

## 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)
5. 樣品的測試是基於申請人要求混合測試，報告中的混合測試結果不代表其中個別單一材質的含量。  
(The samples was/were analyzed on behalf of the applicant as mixing sample in one testing.  
The above results was/were only given as the informality value.)

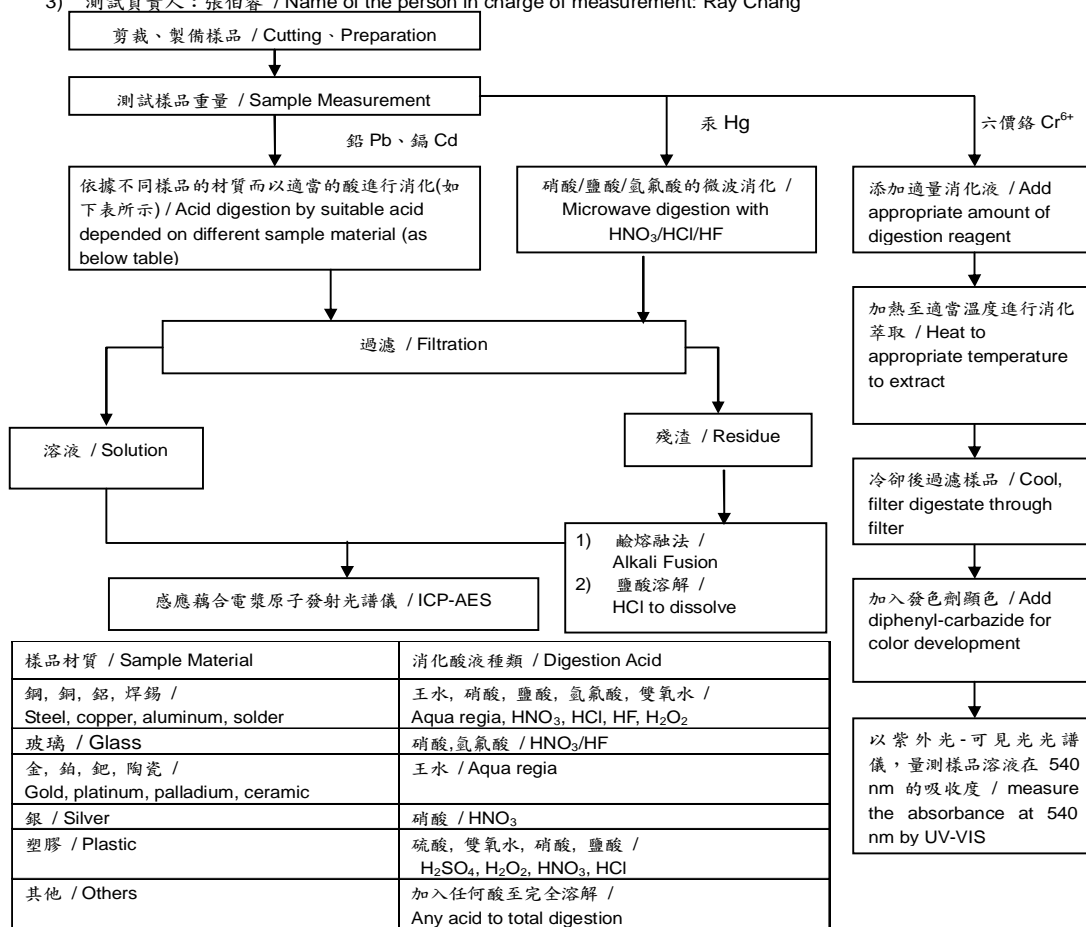
## 測試報告 Test Report

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 5 of 8

ZOTEFOAMS PLC

675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

- 1) 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)
- 2) 測試人員：劉俊宏 / Name of the person who made measurement: Jony Liu
- 3) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



- Note\*\* :**
- (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.

## 測試報告 Test Report

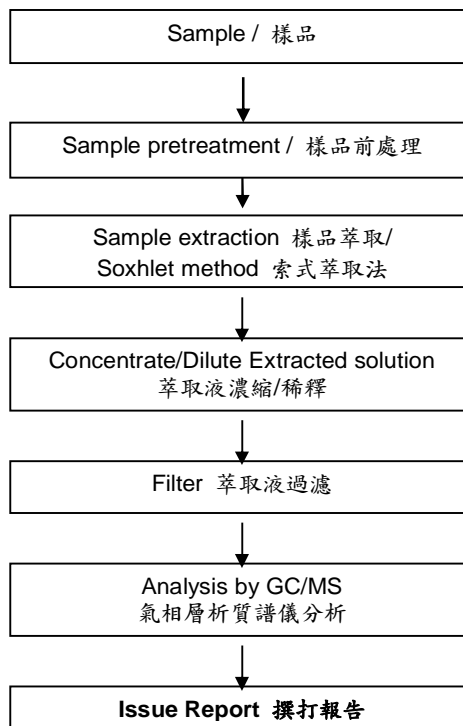
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號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 6 of 8

### 多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART

- 1) 測試人員：陳威錚 / Name of the person who made measurement: Dorothy Chen  
 2) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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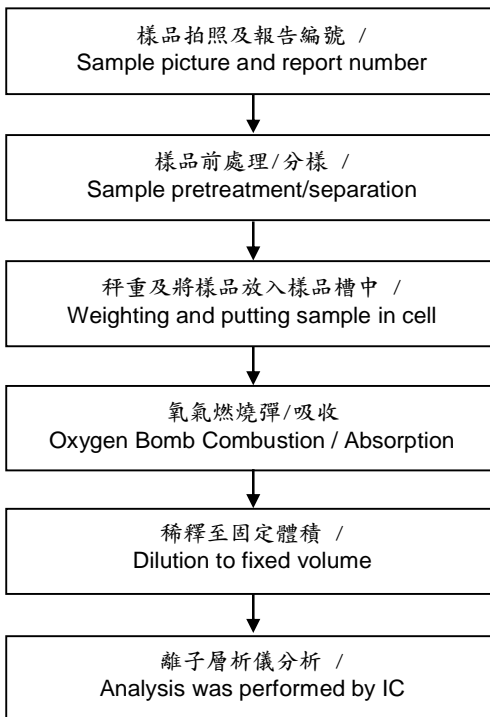
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675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 7 of 8

### 鹵素分析流程圖 / Analytical flow chart of halogen content

- 1) 測試人員：洪秀真 / Name of the person who made measurement: Jean Hung
- 2) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



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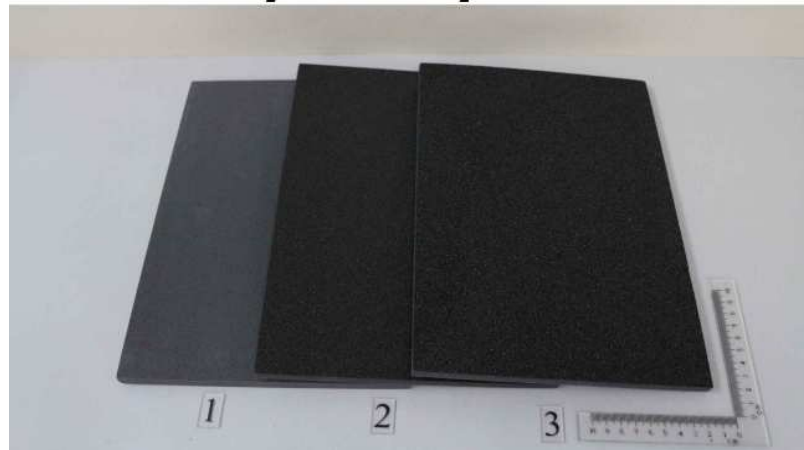
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675 MITHAM ROAD CROYDON CR9 3AL UNITED KINGDOM

號碼(No.) : KD/2014/60050 日期(Date) : 2014/06/26 頁數(Page) : 8 of 8

\* 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.)

### KD/2014/60050



\*\* 報告結尾(End of Report) \*\*