

## 測試報告 Test Report

號碼(No.) : CE/2012/34309

日期(Date) : 2012/03/23

頁數(Page): 1 of 6

冠昇材料科技股份有限公司

CROWN ELITE MATERIAL TECHNOLOGY INC.

新北市汐止區新台五路一段81號8樓之5

8F-5, NO. 81, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22101, TAIWAN



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) : PLEXIGLAS PMMA

樣品型號(Style/Item No.) : 6N, 7N, 8N, 7M, 7H, 8H, LED 8N LD12, LED 8N LD24, LED 8N LD48, LED 8N LD96, POQ62, POQ64, POQ66, ZK4BR, ZK5BR, ZK6BR, ZK20, ZK30, ZK40, ZK50, ZK4HC, ZK5HC, ZK6HC, ZK5HF, ZK6HF, PFE50, PFE70

收件日期(Sample Receiving Date) : 2012/03/16

測試期間(Testing Period) : 2012/03/16 TO 2012/03/23

=====  
**測試需求(Test Requested) :** 依據客戶要求，參考RoHS 2011/65/EU Annex II 指令進行鎘，鉛，汞，六價鉻，多溴聯苯，多溴聯苯醚測試。(As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)

**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，多溴聯苯醚的測試結果符合RoHS指令2002/95/EC的更新指令2011/65/EU之要求 (Based on the performed tests on submitted samples, the test result(s) of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.)

  
Chenyu Kung / Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory – Taipei

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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). 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 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. 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.

## 測試報告 Test Report

號碼(No.) : CE/2012/34309

日期(Date) : 2012/03/23

頁數(Page): 2 of 6

冠昇材料科技股份有限公司

CROWN ELITE MATERIAL TECHNOLOGY INC.

新北市汐止區新台五路一段81號8樓之5

8F-5, NO. 81, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22101, TAIWAN



### 測試結果(Test Results)

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

| 測試項目<br>(Test Items)             | 單位<br>(Unit) | 測試方法<br>(Method)   | 方法偵測<br>極限值<br>(MDL) | 結果<br>(Result) | 法規<br>限值<br>(Limit) |
|----------------------------------|--------------|--|----------------------|----------------|---------------------|
|                                  |              |  |                      | No.1           |                     |
| 鎘 / Cadmium (Cd)                 | mg/kg        | 參考 IEC 62321: 2008 方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES. | 2                    | n.d.           | 100                 |
| 鉛 / Lead (Pb)                    | mg/kg        |  | 2                    | n.d.           | 1000                |
| 汞 / Mercury (Hg)                 | mg/kg        |  | 2                    | n.d.           | 1000                |
| 六價鉻 / Hexavalent Chromium Cr(VI) | mg/kg        | 參考 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        | 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.           | 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.                 | -              |                     |

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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents). 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 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. 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.

## 測試報告 Test Report

號碼(No.) : CE/2012/34309

日期(Date) : 2012/03/23

頁數(Page): 3 of 6

冠昇材料科技股份有限公司

CROWN ELITE MATERIAL TECHNOLOGY INC.

新北市汐止區新台五路一段81號8樓之5

8F-5, NO. 81, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22101, TAIWAN



| 測試項目<br>(Test Items)             | 單位<br>(Unit) | 測試方法<br>(Method)  | 方法偵測<br>極限值<br>(MDL) | 結果<br>(Result)<br>No.1 | 法規<br>限值<br>(Limit) |
|----------------------------------|--------------|---|----------------------|------------------------|---------------------|
|                                  |              |   |                      |                        |                     |
| 多溴聯苯醚總和 / Sum of PBDEs           | mg/kg        | 參考IEC 62321: 2008方法, 以氣相層析儀/<br>質譜儀檢測. / With reference to IEC<br>62321: 2008 and performed by GC/MS. | -                    | 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)

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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). 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 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. 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.

## 測試報告 Test Report

號碼(No.) : CE/2012/34309

日期(Date) : 2012/03/23

頁數(Page): 4 of 6

冠昇材料科技股份有限公司

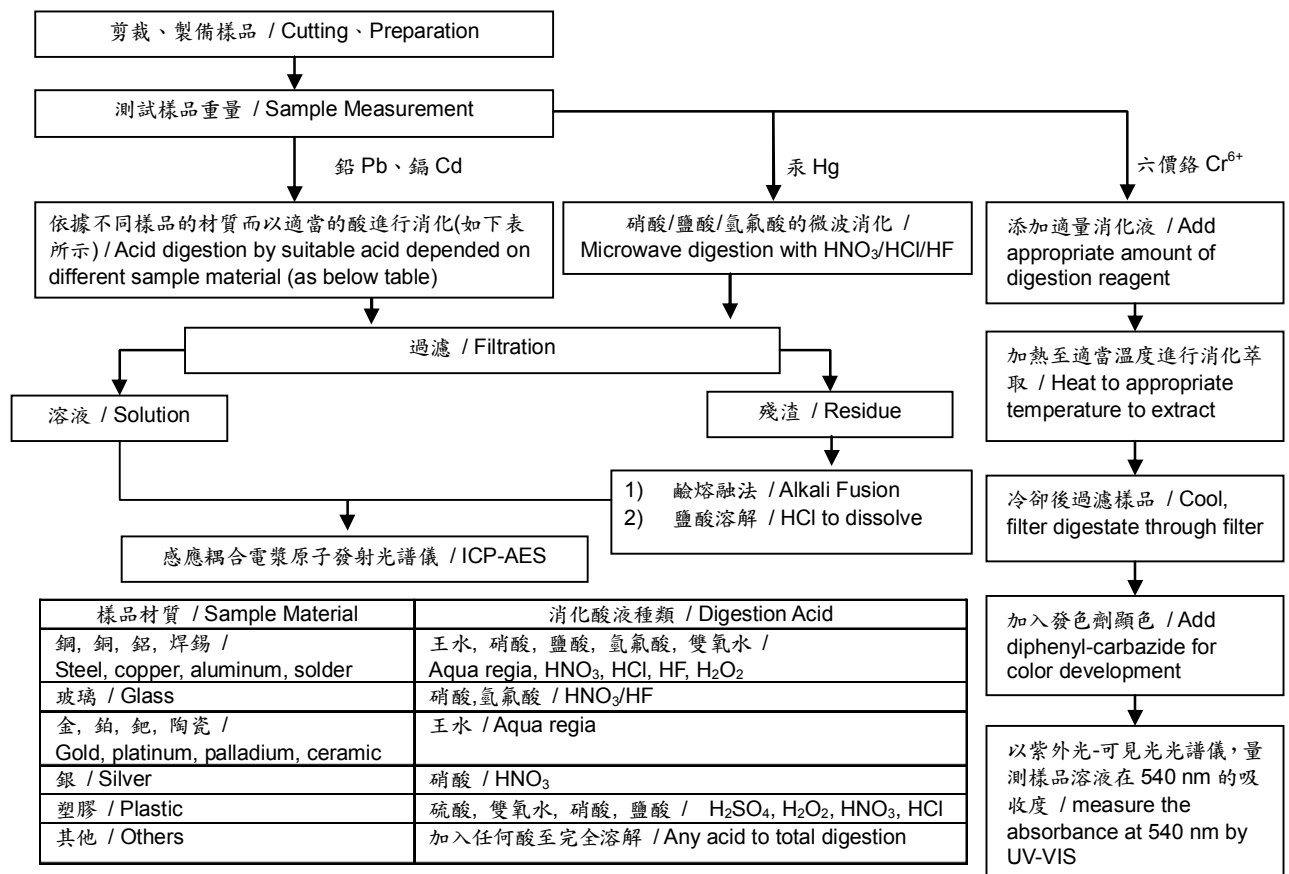
CROWN ELITE MATERIAL TECHNOLOGY INC.

新北市汐止區新台五路一段81號8樓之5

8F-5, NO. 81, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22101, TAIWAN



- 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：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy 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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). 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 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. 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.

## 測試報告 Test Report

號碼(No.) : CE/2012/34309

日期(Date) : 2012/03/23

頁數(Page): 5 of 6

冠昇材料科技股份有限公司

CROWN ELITE MATERIAL TECHNOLOGY INC.

新北市汐止區新台五路一段81號8樓之5

8F-5, NO. 81, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22101, TAIWAN



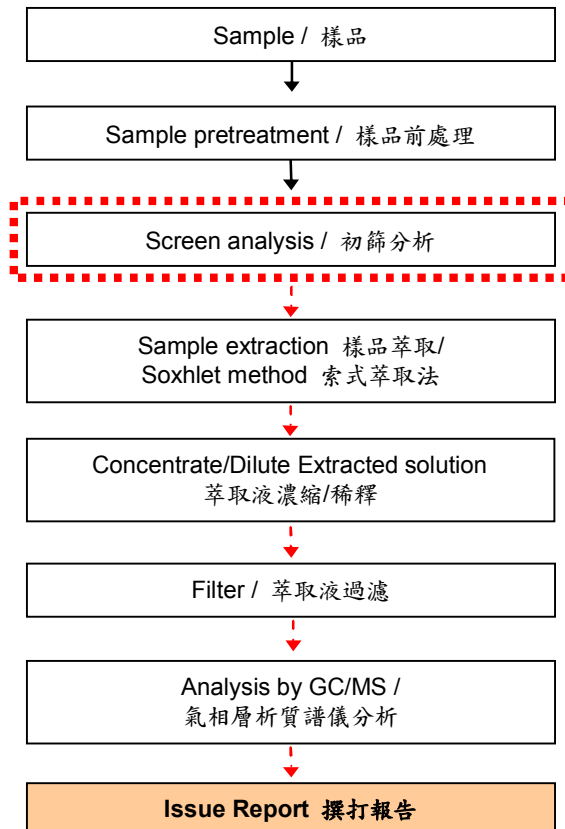
### 多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: 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 - - - ->



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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). 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 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. 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.

## 測試報告 Test Report

號碼(No.) : CE/2012/34309

日期(Date) : 2012/03/23

頁數(Page): 6 of 6

冠昇材料科技股份有限公司

CROWN ELITE MATERIAL TECHNOLOGY INC.

新北市汐止區新台五路一段81號8樓之5

8F-5, NO. 81, SEC. 1, XINTAI 5TH RD., XIZHI DIST., NEW TAIPEI CITY 22101, TAIWAN



**\* 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/2012/34309



**\*\* 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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/Terms-and-Conditions/Terms-e-Document](http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document). 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 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. 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.