

# 檢測報告 Test Report



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報告抬頭公司名稱 高柏科技股份有限公司  
Company Name T- GLOBAL TECHNOLOGY CO., LTD.  
shown on Report  
地 址 桃園市桃園區大仁路50巷33號  
Address NO. 33, LN. 50, DAREN RD., TAOYUAN DIST., TAOYUAN CITY 330, TAIWAN

以下測試之樣品及樣品資訊由申請者提供並確認

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

樣品名稱 導熱灌封膠  
Sample Name 導熱灌封膠  
樣品型號 TG- S09AB  
Part No. TG- S09AB  
樣品接收日期 2020.12.16  
Sample Received Date Dec. 16, 2020  
樣品檢測日期 2020.12.16 - 2020.12.22  
Testing Period Dec. 16, 2020 to Dec. 22, 2020  
檢測要求 根據客戶要求, 對所提交樣品中的鉛(Pb), 鎘(Cd), 汞(Hg), 六價鉻(Cr(VI)), 多溴聯苯(PBBs), 多溴二苯醚(PBDEs), 鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP), 氟(F), 氯(Cl), 溴(Br), 碘(I)進行測試。

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I) in the submitted sample(s).

檢測依據/檢測結果 請參見下頁。  
Test Method/Test Result(s) Please refer to the following page(s).

主 檢

Tested by

批 准

Approved by

徐銘瑞

馮智聰

馮智聰

實驗室經理 Laboratory Manager

審 核

Reviewed by

日 期

Date

黃文昕

2020.12.22

No. R392332122

桃園市蘆竹區南崁路二段9號5樓之6

5F- 6, No.9, Sec.2, Nankan Rd, Luzhu Dist., Taoyuan, Taiwan

台灣華測檢測技術有限公司檢測中心

Testing Center, Centre Testing International (Taiwan) Co., Ltd.

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檢測依據 Test Method

| 測試項目<br>Test Item(s)                            | 測試方法<br>Test Method                       | 測試儀器<br>Measured<br>Equipment(s) |
|-------------------------------------------------|-------------------------------------------|----------------------------------|
| 鉛<br>Lead (Pb)                                  | IEC 62321- 5:2013                         | ICP- OES                         |
| 鎘<br>Cadmium (Cd)                               | IEC 62321- 5:2013                         | ICP- OES                         |
| 汞<br>Mercury (Hg)                               | IEC 62321- 4:2013+AMD1:2017 CSV           | ICP- OES                         |
| 六價鉻<br>Hexavalent Chromium (Cr(VI))             | IEC 62321- 7- 2:2017                      | UV- vis                          |
| 多溴聯苯<br>Polybrominated Biphenyls (PBBs)         | IEC 62321- 6:2015                         | GC- MS                           |
| 多溴二苯醚<br>Polybrominated Diphenyl Ethers (PBDEs) | IEC 62321- 6:2015                         | GC- MS                           |
| 鄰苯二甲酸酯<br>Phthalates (DBP, BBP, DEHP, DIBP)     | IEC 62321- 8:2017                         | GC- MS                           |
| 氟<br>Fluorine (F)                               | 參考EN 14582:2016<br>Refer to EN 14582:2016 | IC                               |
| 氯<br>Chlorine (Cl)                              | 參考EN 14582:2016<br>Refer to EN 14582:2016 | IC                               |
| 溴<br>Bromine (Br)                               | 參考EN 14582:2016<br>Refer to EN 14582:2016 | IC                               |
| 碘<br>Iodine (I)                                 | 參考EN 14582:2016<br>Refer to EN 14582:2016 | IC                               |

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### 檢測結果 Test Result(s)

| 測試項目 Tested Item(s)              | 結果 Result | 方法檢出限 MDL |
|----------------------------------|-----------|-----------|
| 鉛 Lead (Pb)                      | N.D.      | 2 mg/kg   |
| 鎘 Cadmium (Cd)                   | N.D.      | 2 mg/kg   |
| 汞 Mercury (Hg)                   | N.D.      | 2 mg/kg   |
| 六價鉻 Hexavalent Chromium (Cr(VI)) | N.D.      | 8 mg/kg   |

| 測試項目 Tested Item(s)                         | 結果 Result | 方法檢出限 MDL |
|---------------------------------------------|-----------|-----------|
| <b>多溴聯苯 Polybrominated Biphenyls (PBBs)</b> |           |           |
| PBBs PBBs (PBBs)                            | N.D.      | /         |
| 一溴聯苯 Monobromobiphenyl                      | N.D.      | 5 mg/kg   |
| 二溴聯苯 Dibromobiphenyl                        | N.D.      | 5 mg/kg   |
| 三溴聯苯 Tribromobiphenyl                       | N.D.      | 5 mg/kg   |
| 四溴聯苯 Tetrabromobiphenyl                     | N.D.      | 5 mg/kg   |
| 五溴聯苯 Pentabromobiphenyl                     | N.D.      | 5 mg/kg   |
| 六溴聯苯 Hexabromobiphenyl                      | N.D.      | 5 mg/kg   |
| 七溴聯苯 Heptabromobiphenyl                     | N.D.      | 5 mg/kg   |
| 八溴聯苯 Octabromobiphenyl                      | N.D.      | 5 mg/kg   |
| 九溴聯苯 Nonabromobiphenyl                      | N.D.      | 5 mg/kg   |
| 十溴聯苯 Decabromobiphenyl                      | N.D.      | 5 mg/kg   |

| 測試項目 Tested Item(s)                                 | 結果 Result | 方法檢出限 MDL |
|-----------------------------------------------------|-----------|-----------|
| <b>多溴二苯醚 Polybrominated Diphenyl Ethers (PBDEs)</b> |           |           |
| PBDEs PBDEs (PBDEs)                                 | N.D.      | /         |
| 一溴二苯醚 Monobromodiphenyl ether                       | N.D.      | 5 mg/kg   |
| 二溴二苯醚 Dibromodiphenyl ether                         | N.D.      | 5 mg/kg   |
| 三溴二苯醚 Tribromodiphenyl ether                        | N.D.      | 5 mg/kg   |
| 四溴二苯醚 Tetrabromodiphenyl ether                      | N.D.      | 5 mg/kg   |
| 五溴二苯醚 Pentabromodiphenyl ether                      | N.D.      | 5 mg/kg   |
| 六溴二苯醚 Hexabromodiphenyl ether                       | N.D.      | 5 mg/kg   |
| 七溴二苯醚 Heptabromodiphenyl ether                      | N.D.      | 5 mg/kg   |
| 八溴二苯醚 Octabromodiphenyl ether                       | N.D.      | 5 mg/kg   |
| 九溴二苯醚 Nonabromodiphenyl ether                       | N.D.      | 5 mg/kg   |
| 十溴二苯醚 Decabromodiphenyl ether                       | N.D.      | 5 mg/kg   |

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| 測試項目 Tested Item(s)                                                | 結果 Result | 方法檢出限 MDL |
|--------------------------------------------------------------------|-----------|-----------|
| <b>鄰苯二甲酸酯 Phthalates (DBP, BBP, DEHP, DIBP)</b>                    |           |           |
| 鄰苯二甲酸丁基苄基酯 Butyl benzyl phthalate (BBP)<br>CAS#:85-68-7            | N.D.      | 50 mg/kg  |
| 鄰苯二甲酸二(2-乙基)己酯 Di-(2-ethylhexyl) phthalate (DEHP)<br>CAS#:117-81-7 | N.D.      | 50 mg/kg  |
| 鄰苯二甲酸二丁酯 Dibutyl phthalate (DBP)<br>CAS#:84-74-2                   | N.D.      | 50 mg/kg  |
| 鄰苯二甲酸二異丁酯 Diisobutyl phthalate (DIBP)<br>CAS#:84-69-5              | N.D.      | 50 mg/kg  |
| 測試項目 Tested Item(s)                                                | 結果 Result | 方法檢出限 MDL |
| 氟 Fluorine (F)                                                     | N.D.      | 10 mg/kg  |
| 氯 Chlorine (Cl)                                                    | N.D.      | 10 mg/kg  |
| 溴 Bromine (Br)                                                     | N.D.      | 10 mg/kg  |
| 碘 Iodine (I)                                                       | N.D.      | 10 mg/kg  |

樣品/部位描述 灰色固體  
Sample/Part Description Gray solid

備註: 對於檢測鉛, 鎘, 汞之樣品已完全溶解。

- N.D. = 未檢出 (小於方法檢出限)
- mg/kg = ppm = 百萬分之一

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg = ppm = parts per million

注釋: 本報告中的資料結果供科研、教學、企業內部品質控制、企業產品研發等目的用。

Note: The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

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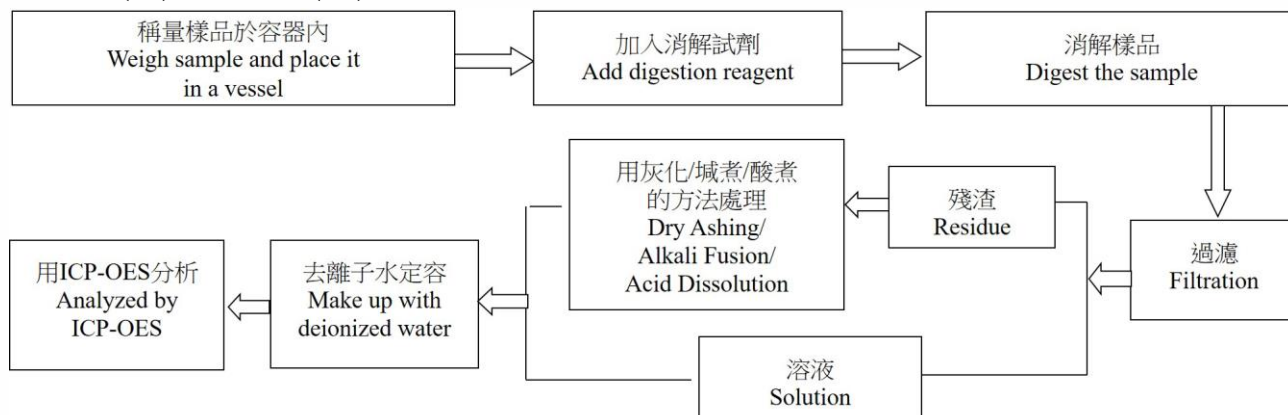
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## 檢測流程 Test Process

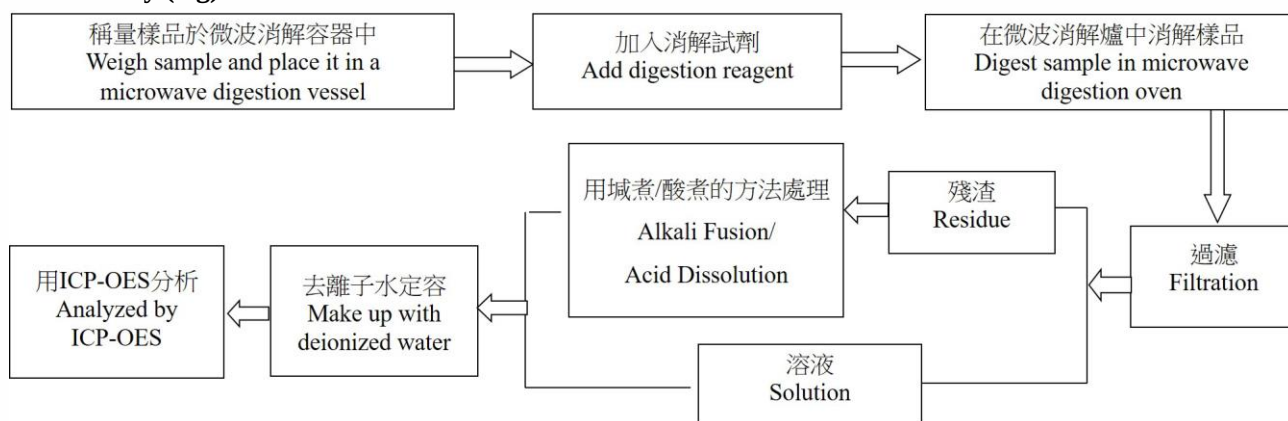
### 1. 鉛(Pb), 鎘(Cd)

#### Lead (Pb), Cadmium (Cd)



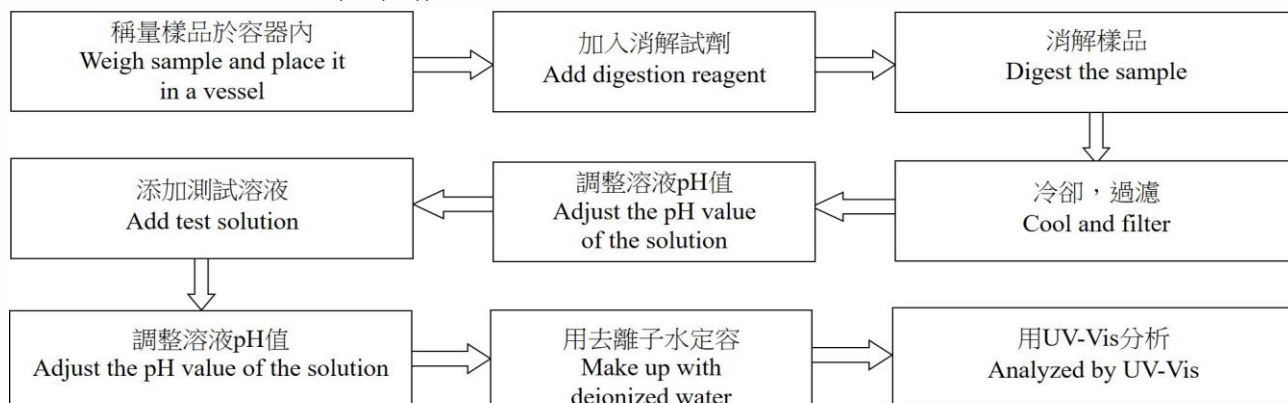
### 2. 汞(Hg)

#### Mercury (Hg)



### 3. 六價鉻(Cr(VI))

#### Hexavalent Chromium (Cr(VI))



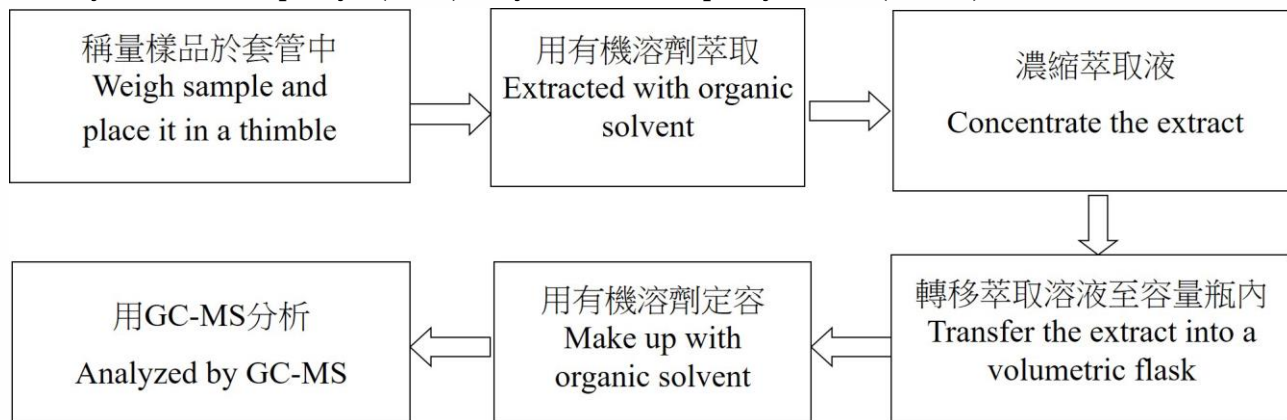
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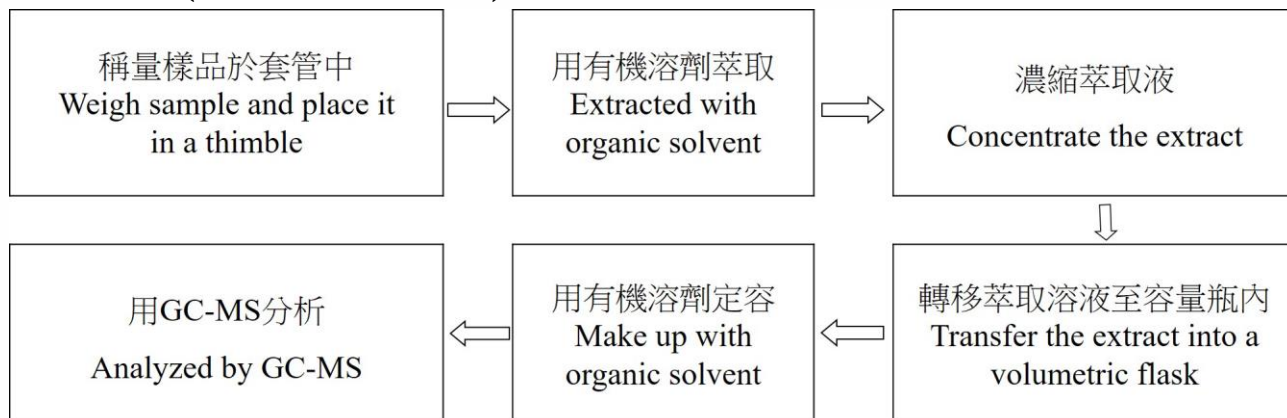
## 4. 多溴聯苯(PBBs), 多溴二苯醚(PBDEs)

Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



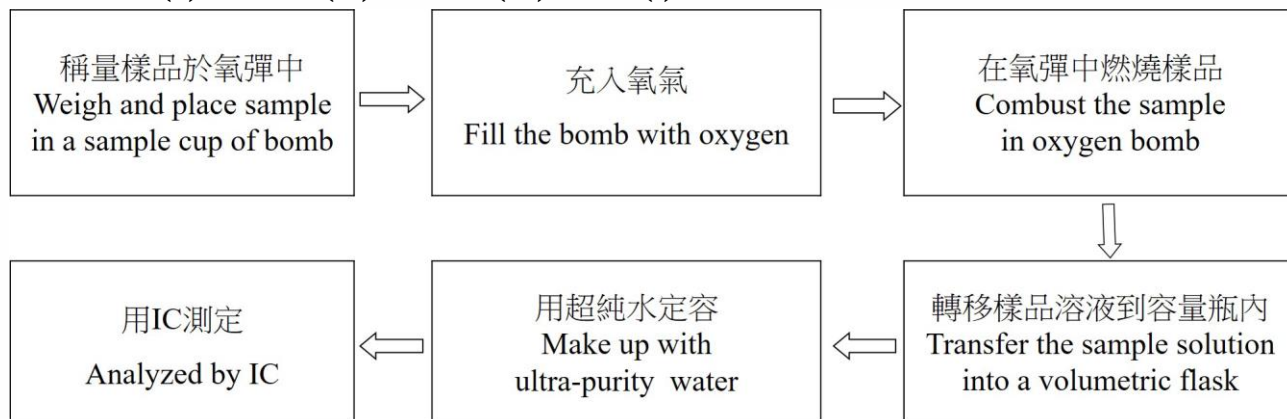
## 5. 鄰苯二甲酸酯(DBP, BBP, DEHP, DIBP)

Phthalates (DBP, BBP, DEHP, DIBP)



## 6. 氟(F), 氯(Cl), 溴(Br), 碘(I)

Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I)





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## 樣品圖片 Photo(s) of the sample(s)



### 聲明Statement :

1. 檢測報告無批准人簽字、“專用章”及報告騎縫章無效；  
This report is considered invalid without approved signature, special seal and the seal on the perforation;
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The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
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The result(s) shown in this report refer(s) only to the sample(s) tested;
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\*\*\* End of report \*\*\*