# 检测报告(Test Report)

**检测报告编号(Report No.)：SZC18081483187-1** 日期(Date)：2018/8/18 页数(Page)：1 of 7

委托单位： 丰顺县威成电子厂

Applicant: Fengshun County Weicheng Electronic Factory

单位地址： 广东省梅州市丰顺县中联村新建路

Address: Xinjian road Zhonglian village Fengshun County Guangdong province

**样品信息(Sample information)**

样品名称(Sample Name)： 2 1/4" -3 方正边金刚烤黑(2 1/4" -3 Founder side adamantine roast black)

样品描述(Sample Description)： 1. 黑色涂层(Black coating)
2. 银色金属(Silver metal)

样品编号(Sample No.)： QT1808148318701

委托日期(Sample Received Date)： 2018/8/14

检测日期(Testing Period)： 2018/8/14 - 2018/8/18

**检测要求(Test Requested)：** 根据客户要求，检测其送检样品中的铅、镉、汞、六价铬、多溴联苯、多溴二苯醚、DBP、BBP、DEHP、DIBP 的含量(As specified by client, to determine the Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the submitted sample.)。

**检测方法(Test Method)：** 请参见后续页(Please refer to following page(s).)。

**检测结果(Test Result)：** 请参见后续页(Please refer to following page(s).)。

**结论(Conclusion)：** 基于所送样品进行的检测，铅、镉、汞、六价铬、多溴联苯、多溴二苯醚、DBP、BBP、DEHP、DIBP 的检测结果符合欧盟 RoHS 指令 2011/65/EU 及其修订指令 EU 2015/863 的限值要求(Based on the performed tests on submitted samples, the results of Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863.)。

审核人
Checked by
Angela
Angela

授权签字人
Signed for and on behalf of HCT
michael
Michael
实验室经理
Laboratory Manager

Shenzhen HCT Testing Technology Co., Ltd
深圳市虹彩检测技术有限公司
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**检测结果(Test Result(s))：** 单位(Unit)：mg/kg

| 检测项目 (Test Items) | 检测方法/仪器 (Test Method/ Equipment) | 方法检出限 (MDL) | 含 量 (Content) | EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 |
|---|---|---|---|---|
| | | | 1 | |
| **铅 Lead(Pb)** | IEC 62321-5:2013. ICP-OES/AAS | 2 | 25 | 1000 |
| **镉 Cadmium(Cd)** | | 2 | N.D. | 100 |
| **汞 Mercury(Hg)** | IEC 62321-4:2013 +AMD1:2017. ICP-OES | 2 | N.D. | 1000 |
| **六价铬 Hexavalent Chromium(Cr(VI)) 通过碱液萃取 by Alkaline extraction** | IEC 62321-5:2013/ IEC 62321-7-2:2017. ICP-OES/AAS UV-VIS | 8 | N.D. | 1000 |
| 一溴联苯 Mono-bromobiphenyl | IEC 62321-6:2015. GC-MS | 5 | N.D. | — |
| 二溴联苯 Di-bromobiphenyl | | 5 | N.D. | |
| 三溴联苯 Tri-bromobiphenyl | | 5 | N.D. | |
| 四溴联苯 Tetra-bromobiphenyl | | 5 | N.D. | |
| 五溴联苯 Penta-bromobiphenyl | | 5 | N.D. | |
| 六溴联苯 Hexa-bromobiphenyl | | 5 | N.D. | |
| 七溴联苯 Hepta-bromobiphenyl | | 5 | N.D. | |
| 八溴联苯 Octa-bromobiphenyl | | 5 | N.D. | |
| 九溴联苯 Nona-bromobiphenyl | | 5 | N.D. | |
| 十溴联苯 Deca-bromobiphenyl | | 5 | N.D. | |
| **多溴联苯 Polybrominated Biphenyls(PBBs)** | | — | N.D. | 1000 |
| 一溴二苯醚 Mono-bromodiphenyl ether | | 5 | N.D. | — |
| 二溴二苯醚 Di-bromodiphenyl ether | | 5 | N.D. | |
| 三溴二苯醚 Tri-bromodiphenyl ether | | 5 | N.D. | |
| 四溴二苯醚 Tetra-bromodiphenyl ether | | 5 | N.D. | |
| 五溴二苯醚 Penta-bromodiphenyl ether | | 5 | N.D. | |
| 六溴二苯醚 Hexa-bromodiphenyl ether | | 5 | N.D. | |
| 七溴二苯醚 Hepta-bromodiphenyl ether | | 5 | N.D. | |
| 八溴二苯醚 Octa-bromodiphenyl ether | | 5 | N.D. | |
| 九溴二苯醚 Nona-bromodiphenyl ether | | 5 | N.D. | |
| 十溴二苯醚 Deca-bromodiphenyl ether | | 5 | N.D. | |
| **多溴二苯醚 Polybrominated Diphenyl Ethers(PBDEs)** | | — | N.D. | 1000 |

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| 检测项目 (Test Items) | 检测方法/仪器 (Test Method/ Equipment) | 方法检出限 (MDL) | 含 量 (Content) | EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 |
|---|---|---|---|---|
| | | | 1 | |
| 邻苯二甲酸二正丁酯 Dibutyl phthalate (DBP) | IEC 62321-8:2017, GC-MS | 30 | N.D. | 1000 |
| 邻苯二甲酸丁苄酯 Butylbenzyl phthalate (BBP) | | 30 | N.D. | 1000 |
| 邻苯二甲酸二(2-乙基己基)酯 Di-(2-ethylhexyl) Phthalate (DEHP) | | 30 | N.D. | 1000 |
| 邻苯二甲酸二异丁酯 Di-iso-butyl phthalate (DIBP) | | 30 | N.D. | 1000 |

| 检测项目 (Test Items) | 检测方法/仪器 (Test Method/ Equipment) | 方法检出限 (MDL) | 含 量 (Content) | EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 |
|---|---|---|---|---|
| | | | 2 | |
| 铅 Lead(Pb) | IEC 62321-5:2013. ICP-OES/AAS | 2 | N.D. | 1000 |
| 镉 Cadmium(Cd) | | 2 | N.D. | 100 |
| 汞 Mercury(Hg) | IEC 62321-4:2013 +AMD1:2017. ICP-OES | 2 | N.D. | 1000 |

| 检测项目 (Test Item) | 检测方法/仪器 (Test Method/ Equipment) | 方法检出限 (MDL) ($\mu g/cm^2$) | 结果 (Result) ($\mu g/cm^2$) | 定性结果 (Qualitative Result) | EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 |
|---|---|---|---|---|---|
| | | | 2 | | |
| 六价铬 Hexavalent Chromium(Cr(VI))♦ | IEC 62321-7-1:2015. UV-VIS | 0.05 | N.D. | 阴性 (Negative) | — |

**备注(Note)：** mg/kg = ppm=parts per million
MDL=Method Detection Limit 方法检出限
N.D.=Not Detected(less than method detection limit)，未检出（小于方法检出限）
"—"=Not regulated 无规定
Results shown as N.D. are ignored in the sum calculation.
结果显示为 N.D.不计入总和的计算。
The detected Chromium (Cr) content is "N.D.", therefore, the Hexavalent Chromium (Cr (VI)) content is "N.D.", No need for validation test of the Hexavalent Chromium (Cr (VI)).检测的铬（Cr）含量是"N.D."，则六价铬（Cr(VI)）含量也是"N.D."，不需要进行六价铬（Cr(VI)）的确认性测试。
If Chromium (Cr) content exceeds Hexavalent Chromium (Cr (VI)) method detection limit, Validation test of the Hexavalent Chromium (Cr (VI)) is required.
若铬（Cr）含量超过六价铬（Cr(VI)）方法检出限，需要进行六价铬（Cr(VI)）的确认性测试。

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♦ = a. 当六价铬的浓度高于 0.13μg/cm² 时，样品为阳性，即含有六价铬；
b. 当六价铬的浓度为 ND(低于 0.10μg/cm² )时，样品为阴性，即未检测到六价铬；
c. 当六价铬的浓度介于 0.10μg/cm² 与 0.13μg/cm² 之间时，无法直接判定是否检测到六价铬，因不同个体的样品表面差异可能会影响测定结果；
由于未获知样品的存储条件和生产日期，样品的六价铬检测结果仅能代表检测时样品含六价铬的状态。
a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13μg/cm². The sample coating is considered to contain Cr(VI);
b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10μg/cm²). The coating is considered a non-Cr(VI) based coating;
c. The result between 0.10μg/cm² and 0.13μg/cm² is considered to be inconclusive -unavoidable coating variations may influence the determination;
Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

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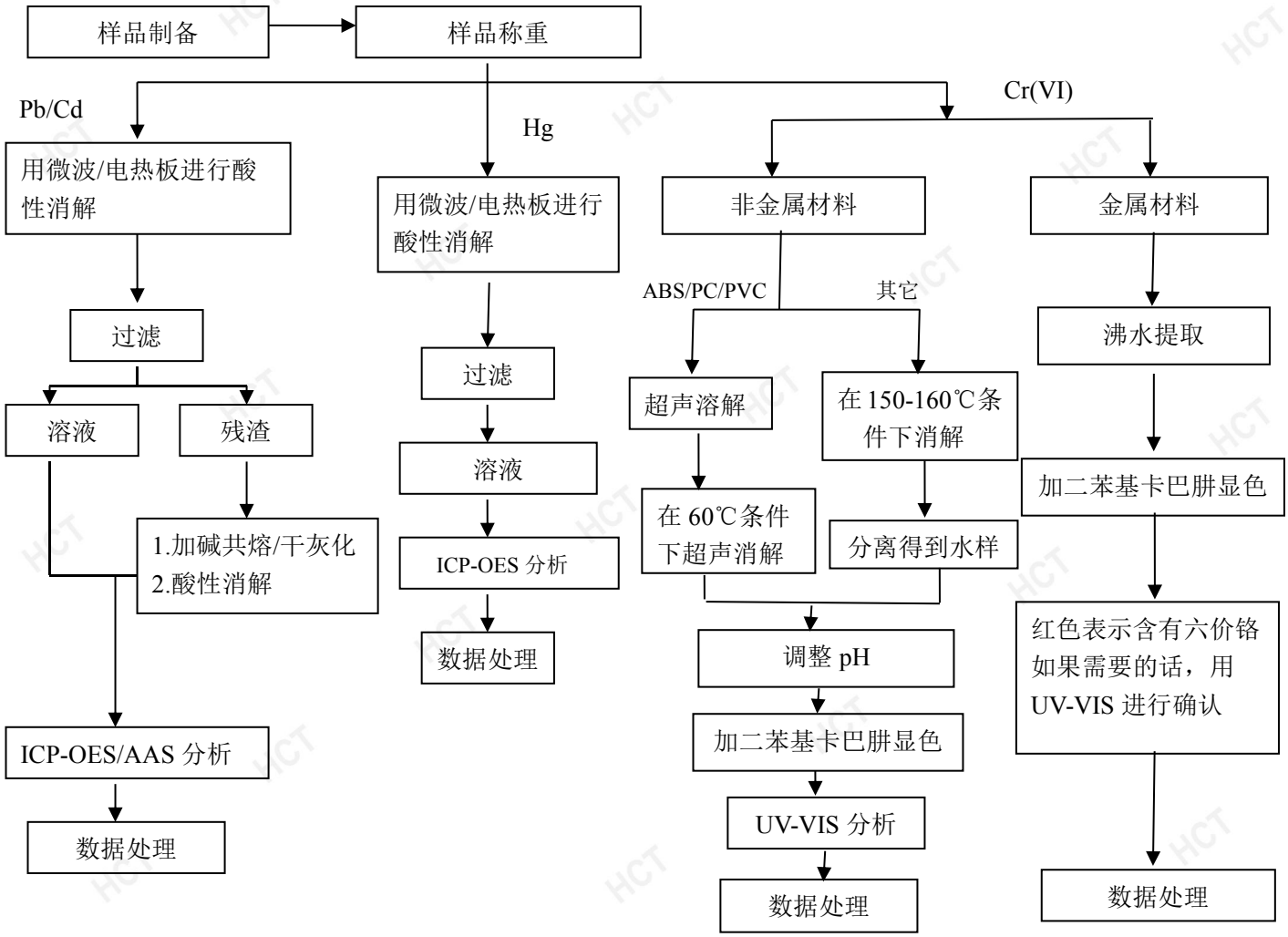
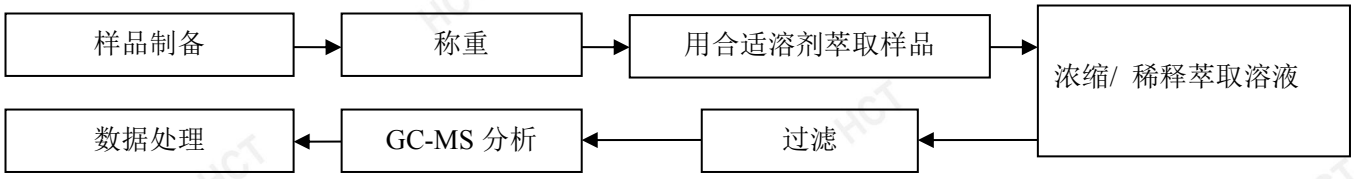
## 铅、镉、汞、六价铬、多溴联苯、多溴二苯醚的检测流程图




根据以上的流程图之条件，样品已经完全溶解(六价铬检测方法除外)。

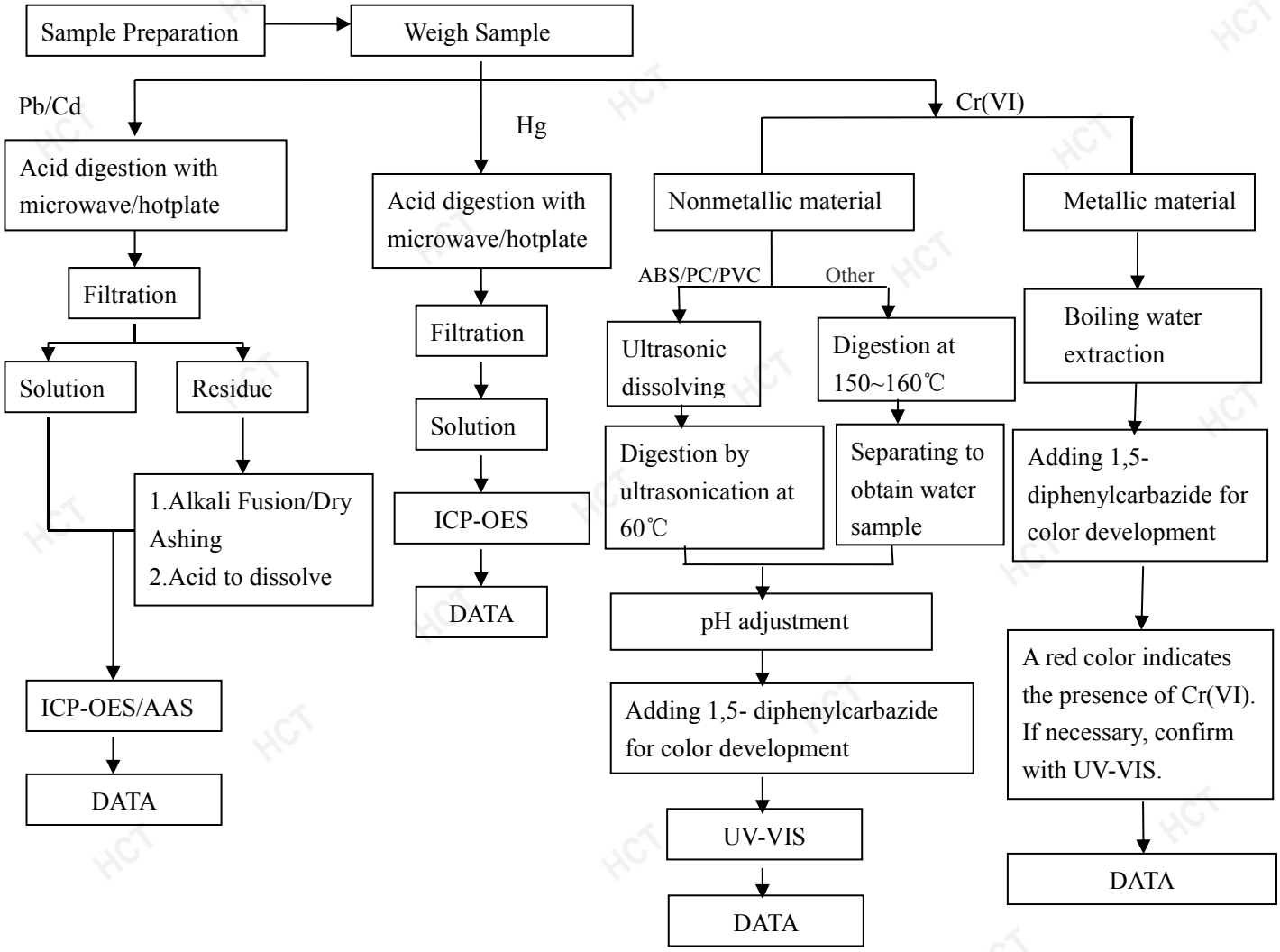
**PBBs/PBDEs**



# 检测报告(Test Report)

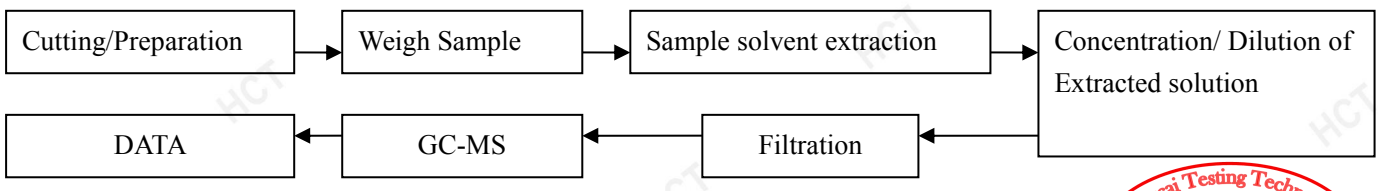


## Test Flow Chart for Pb, Cd, Hg, Cr(VI), PBBs, PBDEs




These sample were dissolved totally by pre-conditioning method according to above flow chart(Cr(VI) test method excluded)

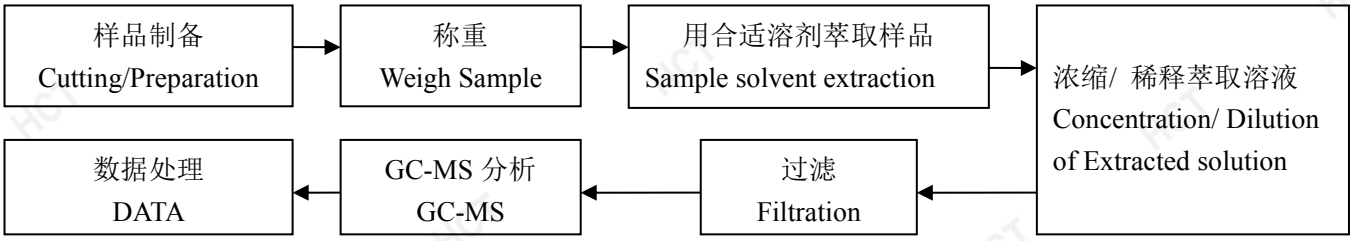
**PBBs/PBDEs**



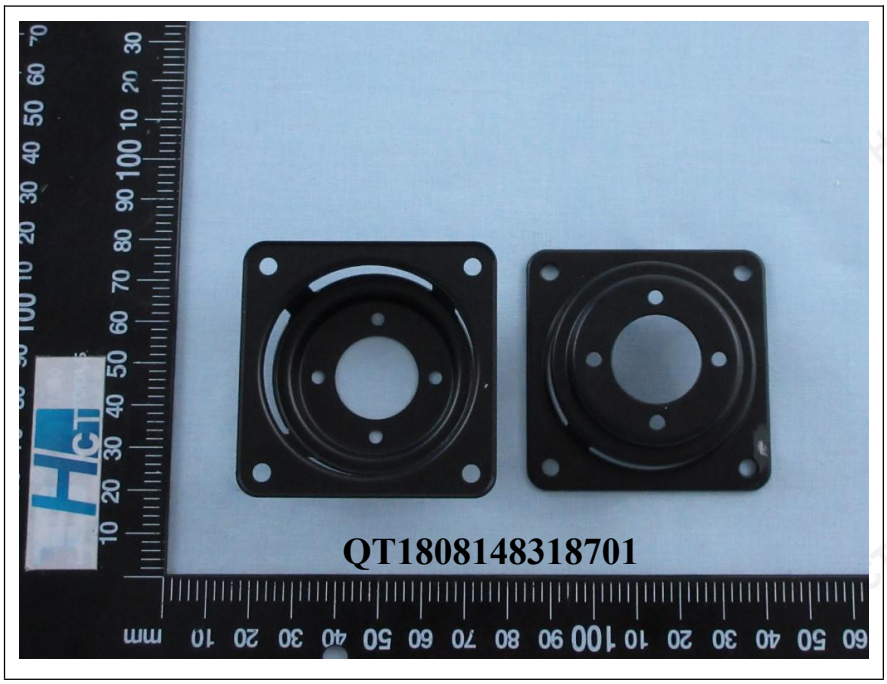
# 检测报告(Test Report)



**DBP, BBP, DEHP, DIBP 的检测流程图**
**(Test Flow Chart for DBP, BBP, DEHP, DIBP)**




## 样 品 附 图(The photo of the sample)




*****报告结束(End)*****

本报告 HCT 盖章才生效，本报告不可以删改。本报告只对送检样品的检测结果负责。
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