



中国认可
国际互认
检测
TESTING
CNAS L6478



检测报告 TEST REPORT

报告编号/ Report No..... : WTF25F03071853C
任务号/ Job No. : FSW2503261257CJ
委托方/ Applicant : 福建省乔光电子科技有限公司
Fujian Qiaoguang Electronic Technology Co., Ltd
地址/ Address : 福建省漳平市西园镇大洋路 21 号/No. 21 Dayang Road, Xiyuan
Town, Zhangping City, Fujian Province
样品名称/ Sample Name : 氧化锌压敏电阻(铜电极)/ Zinc oxide varistor (copper electrode)
样品材质/ Sample Material : 氧化锌+铜+镀锡铜包钢线+锡+环氧树脂/ Zinc oxide+Copper+Tin
plated copper-clad steel wire+Tin+Epoxy resin
检测要求/ Test Requested : 根据欧盟 RoHS 指令 2011/65/EU 及其修订指令 EU 2015/863, 测
试送检样品中铅、镉、汞、六价铬、多溴联苯、多溴二苯醚、DBP、
BBP、DEHP、DIBP 的含量。
With reference to EU RoHS Directive 2011/65/EU and its
amendment Directive EU 2015/863, to determine the Pb, Cd, Hg,
Cr⁶⁺, PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the
submitted sample.
检测方法/ Test Method : 参见报告下页/ Refer to next page (s)
检测结论/ Test Conclusion : 符合/ Pass
样品接收日期/ Date of Receipt sample : 2025-03-26
检测周期/ Testing period : 2025-03-26 ~ 2025-03-29
报告日期/ Date of Issue : 2025-03-29
检测结果/ Test Result : 参见报告下页/ Refer to next page (s)

报告制作/ Prepared By:

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佛山市沃特测试技术服务有限公司

授权签字人

Signed for and on behalf of

Waltek Testing Group (Foshan) Co., Ltd.

梁志聪

梁志聪/Swing Liang

佛山市沃特测试技术服务有限公司/ Waltek Testing Group (Foshan) Co., Ltd.

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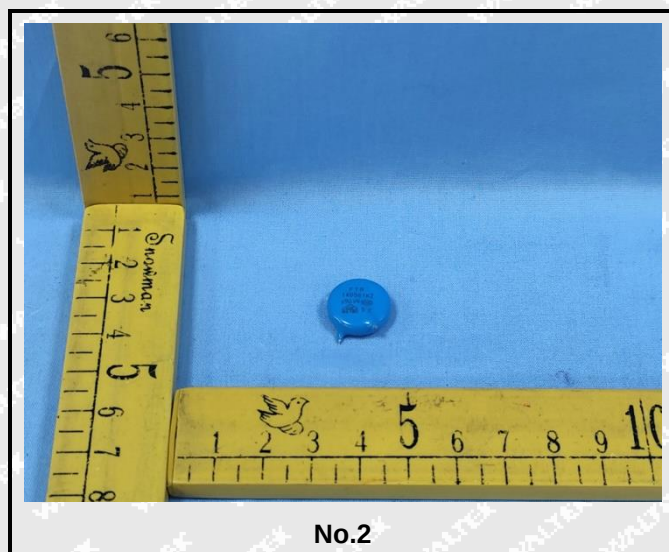
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任务号/Job No.: FSW2503261257CJ

样品图片 / Sample Photo:



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测试结果/ Test Results:

检测方法/仪器/ Test Method/Equipment:

- 参考 IEC 62321-5:2013, 使用 ICP-OES 检测铅, 镉含量
- 参考 IEC 62321-4:2013+AMD1:2017 CSV, 使用 ICP-OES 检测汞含量
- 参考 IEC 62321-7-2:2017, 使用 UV-Vis 检测六价铬含量
- 参考 IEC 62321-6:2015, 使用 GC-MS 检测多溴联苯, 多溴二苯醚含量
- 参考 IEC 62321-8:2017, 使用 GC-MS 检测 DBP, BBP, DEHP, DIBP 含量
- With reference to IEC 62321-5:2013, determination of Pb, Cd by ICP-OES
- With reference to IEC 62321-4:2013+AMD1:2017 CSV, determination of Hg by ICP-OES
- With reference to IEC 62321-7-2:2017, determination of Cr⁶⁺ by UV-Vis
- With reference to IEC 62321-6:2015, determination of PBBs, PBDEs by GC-MS
- With reference to IEC 62321-8:2017, determination of DBP, BBP, DEHP, DIBP by GC-MS

检测项目 Test Item(s)	单位 Unit	定量限 LOQ	结果 Result(s)	限值 Limit
			No.2	
铅(Pb)/ Lead(Pb)	mg/kg	2	ND	1000
镉(Cd)/ Cadmium(Cd)	mg/kg	2	ND	100
汞(Hg)/ Mercury(Hg)	mg/kg	2	ND	1000
六价铬(Cr ⁶⁺)/ Hexavalent Chromium(Cr ⁶⁺)	mg/kg	8	ND	1000
多溴联苯(PBBs)/ Polybrominated Biphenyls(PBBs)	mg/kg	—	ND	1000
一溴联苯/ Mono-bromobiphenyl	mg/kg	5	ND	—
二溴联苯/ Di-bromobiphenyl	mg/kg	5	ND	—
三溴联苯/ Tri-bromobiphenyl	mg/kg	5	ND	—
四溴联苯/ Tetra-bromobiphenyl	mg/kg	5	ND	—
五溴联苯/ Penta-bromobiphenyl	mg/kg	5	ND	—
六溴联苯/ Hexa-bromobiphenyl	mg/kg	5	ND	—
七溴联苯/ Hepta-bromobiphenyl	mg/kg	5	ND	—
八溴联苯/ Octa-bromobiphenyl	mg/kg	5	ND	—
九溴联苯/ Nona-bromobiphenyl	mg/kg	5	ND	—
十溴联苯/ Deca-bromobiphenyl	mg/kg	5	ND	—
多溴二苯醚(PBDEs)/ Polybrominated Diphenyl Ethers(PBDEs)	mg/kg	—	ND	1000
一溴二苯醚/ Mono-bromodiphenyl ether	mg/kg	5	ND	—
二溴二苯醚/ Di-bromodiphenyl ether	mg/kg	5	ND	—
三溴二苯醚/ Tri-bromodiphenyl ether	mg/kg	5	ND	—
四溴二苯醚/ Tetra-bromodiphenyl ether	mg/kg	5	ND	—
五溴二苯醚/ Penta-bromodiphenyl ether	mg/kg	5	ND	—
六溴二苯醚/ Hexa-bromodiphenyl ether	mg/kg	5	ND	—
七溴二苯醚/ Hepta-bromodiphenyl ether	mg/kg	5	ND	—
八溴二苯醚/ Octa-bromodiphenyl ether	mg/kg	5	ND	—



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检测项目 Test Item(s)	单位 Unit	定量限 LOQ	结果 Result(s)	限值 Limit
			No.2	
九溴二苯醚/ Nona-bromodiphenyl ether	mg/kg	5	ND	—
十溴二苯醚/ Deca-bromodiphenyl ether	mg/kg	5	ND	—
邻苯二甲酸二正丁酯(DBP)/ Dibutyl phthalate(DBP)	mg/kg	50	ND	1000
邻苯二甲酸丁苄酯(BBP)/ Butylbenzyl phthalate(BBP)	mg/kg	50	ND	1000
邻苯二甲酸二(2-乙基己基)酯(DEHP)/ Di-(2-ethylhexyl) phthalate(DEHP)	mg/kg	50	ND	1000
邻苯二甲酸二异丁酯(DIBP)/ Di-iso-butyl phthalate(DIBP)	mg/kg	50	ND	1000
结论 / Conclusion	--	--	符合 Pass	--

备注/ Note:

(1)mg/kg (毫克每千克) = ppm (百万分之)/ mg/kg (milligram per kilogram) = ppm (parts per million)

(2)ND=未检出, 检测值小于定量限/ ND=Not Detected or lower than limit of quantitation

(3)LOQ =定量限/ LOQ =Limit of quantitation

(4)"--"=未规定/ "--"=Not regulated

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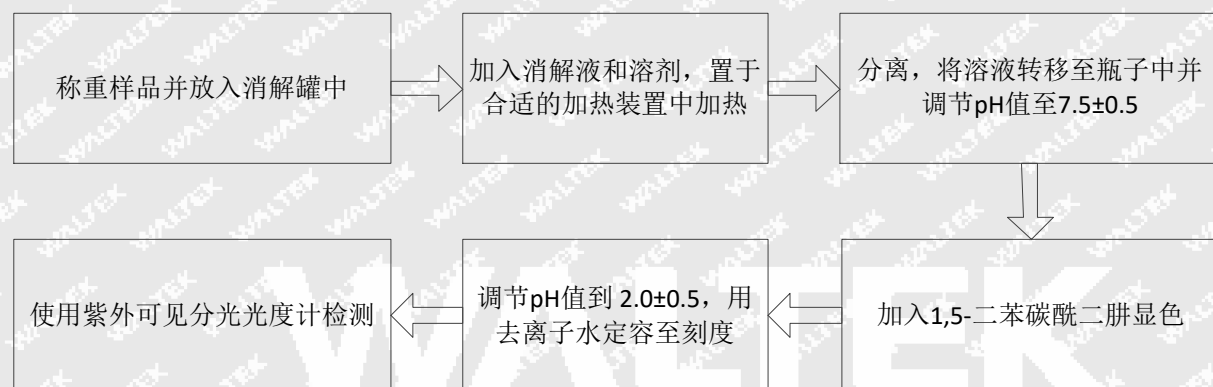
任务号/Job No.: FSW2503261257CJ

测试流程图 / Testing Flow chart:

铅(Pb)、镉(Cd)、汞(Hg)



六价铬(Cr^{6+})



多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸二正丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)、邻苯二甲酸二异丁酯(DIBP)

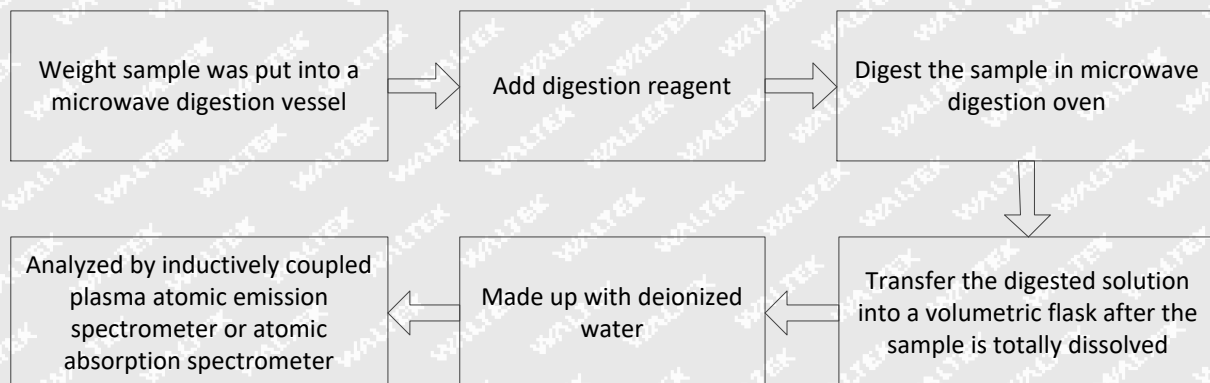




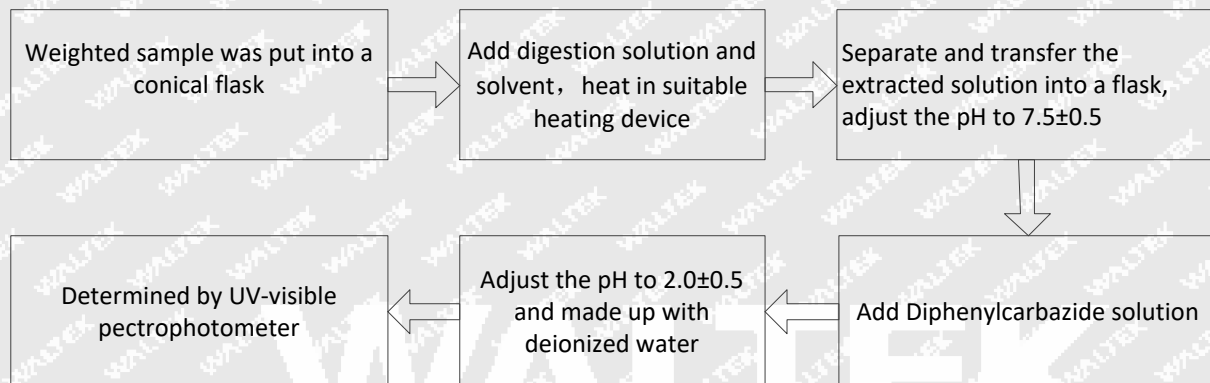
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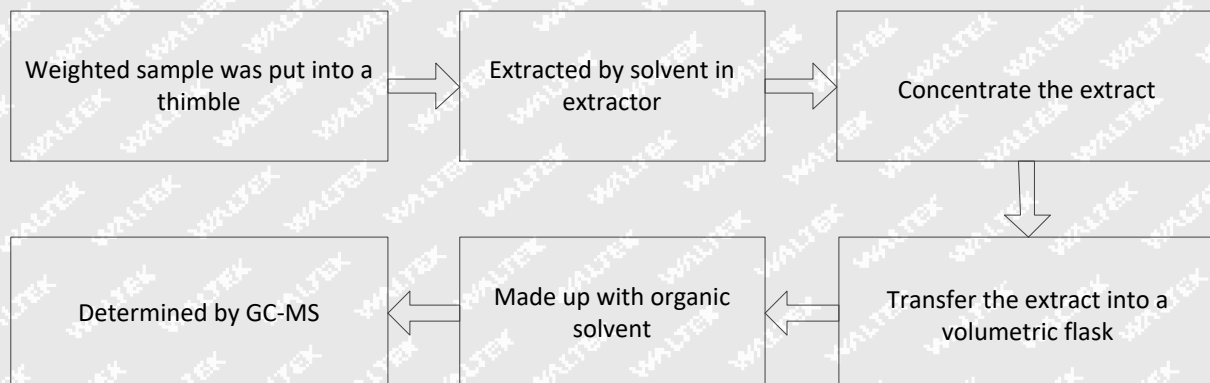
Lead(Pb), Cadmium(Cd), Mercury(Hg)



Hexavalent Chromium(Cr^{6+})



Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs), Dibutyl phthalate(DBP), Butylbenzyl phthalate(BBP), Di-(2-ethylhexyl) phthalate(DEHP), Di-iso-butyl phthalate(DIBP)



样品描述 / Specimen Description:

样品编号 Specimen No.	样品描述 Specimen Description
2	蓝色压敏电阻 Blue varistor



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备注/ Remarks:

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