

检测报告
Test Report报告编号 A2240794234101001E
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报告抬头公司名称 浙江人禾电子有限公司
Company Name ZHEJIANG RHI ELECTRIC CO., LTD
shown on Report
地址 浙江省温州市柳市镇象阳工业区德宇路 23 号
Address DEYU RD, XIANGYANG INDUSTRIAL ZONE, LIUSHI TOWN, YUEQING CITY
ZHEJIANG, CHINA

以下测试之样品及样品信息由申请者提供并确认

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

样品名称 Sample Name(s) 紫铜（镀锡）Purple copper (tinned)

参考信息 Reference Information NA

材质 Material T2m

样品接收日期 2024.12.17

Sample Received Date Dec. 17, 2024

样品检测日期 2024.12.17-2024.12.19

Testing Period Dec. 17, 2024 to Dec. 19, 2024

检测要求

根据欧盟指令 2000/53/EC* 及客户的要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI))进行测试。

*欧盟指令 2000/53/EC 即 ELV 指令, 该指令对汽车所使用的部件和材料中特定有毒有害物质铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI))限制使用。

Test Requested

According to ELV Directive 2000/53/EC* and as specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)) in the submitted sample(s).

*2000/53/EC is the End-of-Life Vehicle Directive (ELV), which focuses on restriction of the use of certain hazardous substances (Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)) in the materials and components of vehicles.

检测依据/检测结果

请参见下页。

Test Method/Test Result(s)

Please refer to the following page(s).

批准

Approved by

陈利娟

日期

Date

2024.12.19

授权签字人 Lab Authorized Signatory

No. J587851760

上海华测品标检测技术有限公司

Centre Testing International Puhao (Shanghai) Co., Ltd.

上海市闵行区万芳路 1351 号

No.1351, Wanfang Road, Minhang District, Shanghai, China

检验检测专用章
Inspection & Testing Services

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结论 Conclusion

测试样品 Tested Sample	依据标准/指令 According to standard/directive	结果 Result
提交样品 Submitted Sample	客户限值及 2000/53/EC Client's Limit and 2000/53/EC	符合 PASS

符合表示检测结果满足客户限值及欧盟指令2000/53/EC要求的限值。

PASS means that the results shown on the report comply with the limits set by Client's Limit and ELV Directive 2000/53/EC.

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检测依据 Test Method

测试项目 Tested Item(s)	测试方法 Test Method	测试仪器 Measured Equipment(s)
铅 Lead (Pb)	IEC 62321-5:2013	ICP-OES
	参考 IEC 62321-5:2013 Refer to IEC 62321-5:2013	
镉 Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
	参考 IEC 62321-5:2013 Refer to IEC 62321-5:2013	
汞 Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
	参考 IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV	
六价铬 Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015	UV-Vis

检测结果 Test Result(s)

测试项目 Tested Item(s)	结果 Result		方法检出限 MDL	限值 Limit
	001	002		
铅 Lead (Pb)	20 mg/kg	72 mg/kg	2 mg/kg	1000 mg/kg
镉 Cadmium (Cd)	N.D.	N.D.	2 mg/kg	100 mg/kg
汞 Mercury (Hg)	N.D.	N.D.	2 mg/kg	1000 mg/kg
六价铬 Hexavalent Chromium (Cr(VI))	N.D.▼	N.D.▼	0.10 µg/cm ² (LOQ)	0.10 µg/cm ²

样品/部位描述 Sample/Part Description

序号 No.	CTI 样品 ID CTI Sample ID	描述 Description
1	001	金属基材 Metal base
2	002	银色镀层 Silvery plating

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备注: 对于检测铅, 镉, 汞之样品已消解完全。
-N.D. = 未检出 (小于方法检出限或定量限)
-mg/kg = ppm = 百万分之一
-1000 mg/kg = 0.1%
-LOQ = 定量限, 六价铬的定量限为 0.10 $\mu\text{g}/\text{cm}^2$
-▼六价铬浓度小于 0.10 $\mu\text{g}/\text{cm}^2$, 样品未检出六价铬。由于未获知样品的存储条件和生产日期, 样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

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

-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL or LOQ)
-mg/kg = ppm = parts per million
-1000 mg/kg = 0.1%
-LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 $\mu\text{g}/\text{cm}^2$
-▼The sample is negative for Cr(VI) – The Cr(VI) concentration is below 0.10 $\mu\text{g}/\text{cm}^2$. The coating is considered a non-Cr(VI) based coating. 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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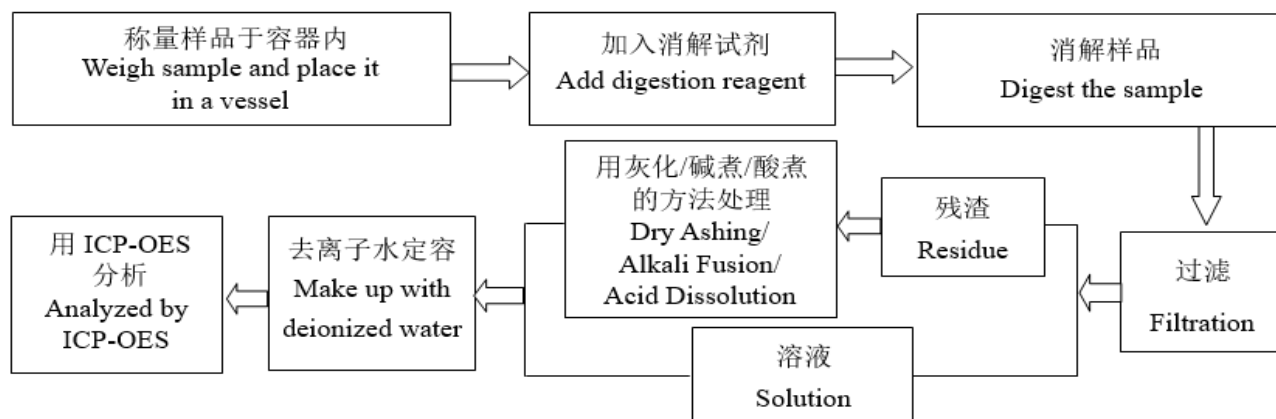
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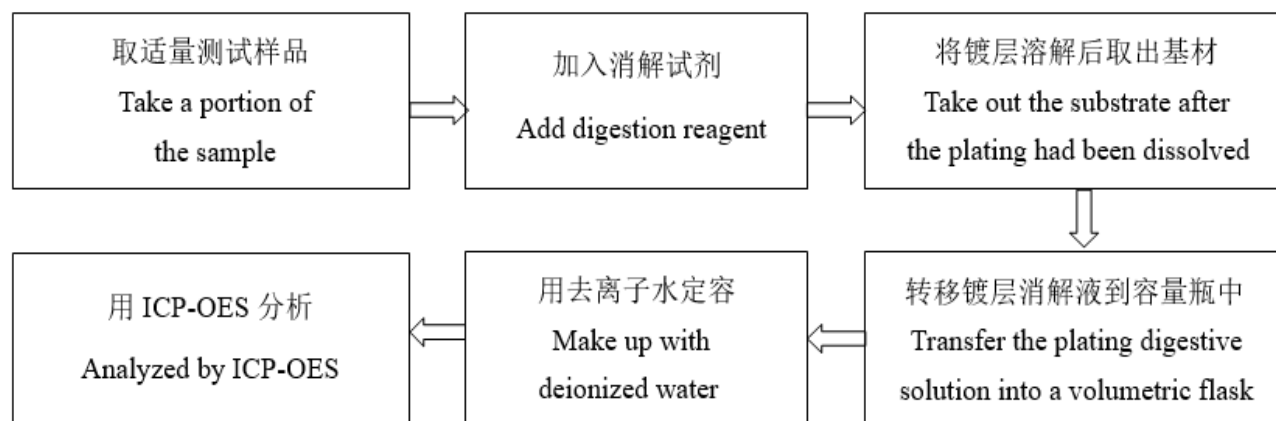
检测流程 Test Process

1. 铅 Lead (Pb), 镉 Cadmium (Cd)

(1) IEC 62321-5:2013



(2) 参考 IEC 62321-5:2013 Refer to IEC 62321-5:2013



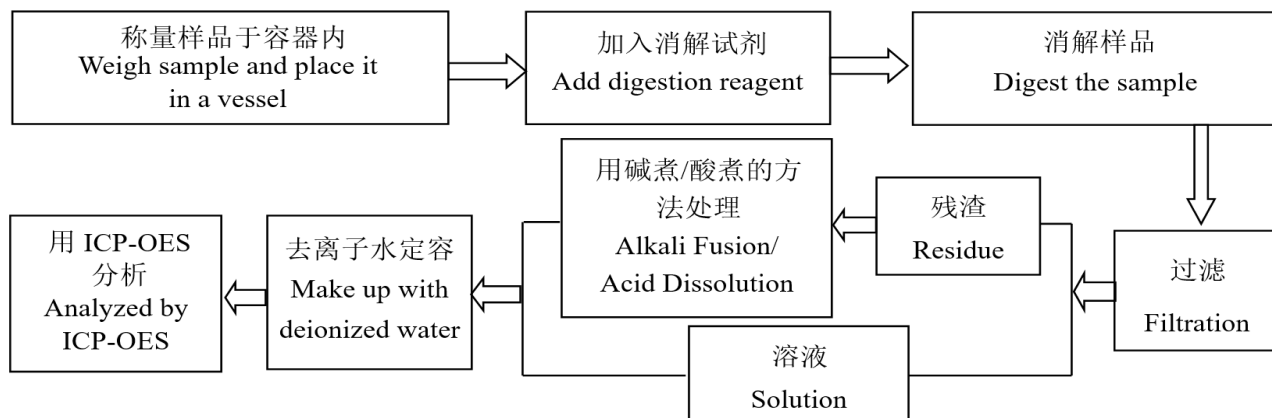
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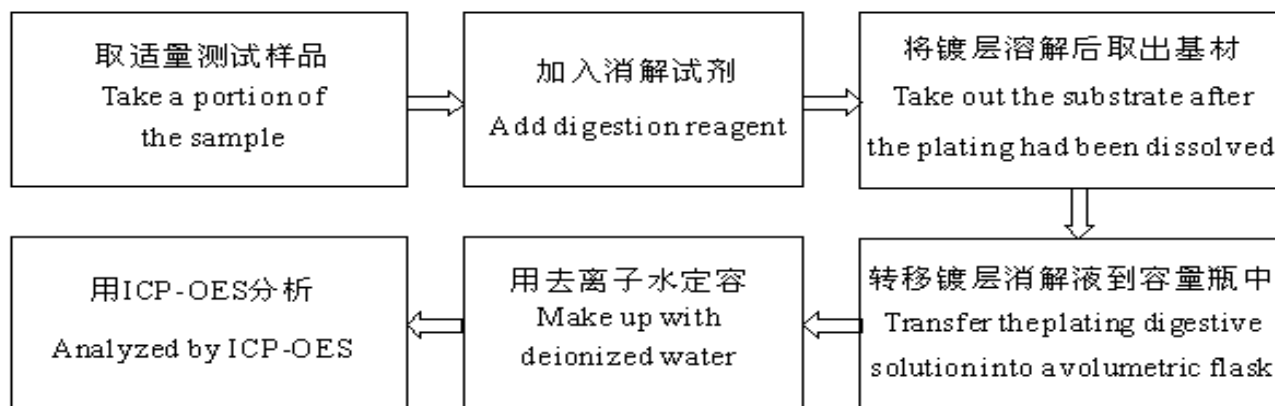
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2. 汞 Mercury (Hg)

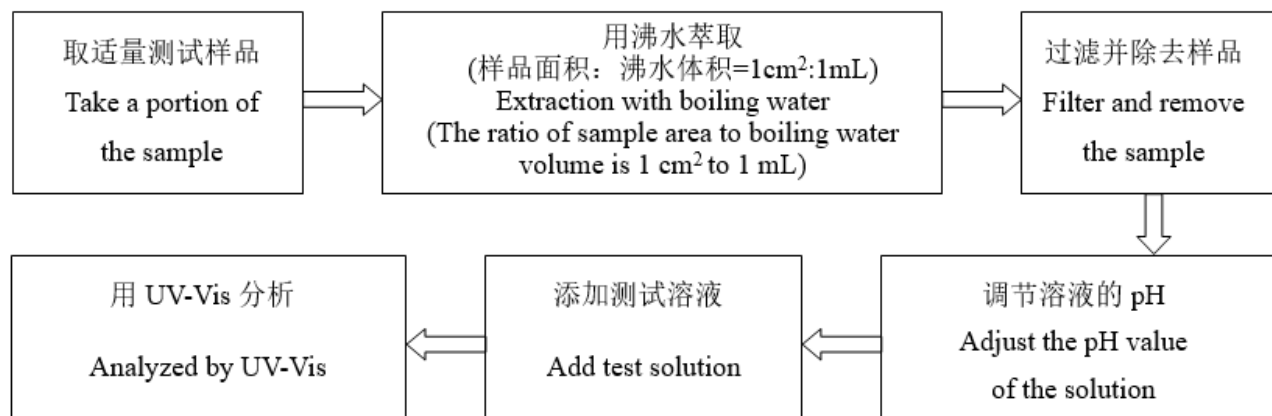
(1) IEC 62321-4:2013+AMD1:2017 CSV



(2) 参考 IEC 62321-4:2013+AMD1:2017 CSV Refer to IEC 62321-4:2013+AMD1:2017 CSV



3. 六价铬 Hexavalent Chromium (Cr(VI))



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样品图片

Photo(s) of the sample(s)



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声明 Statement:

1. 检测报告无批准人签字、“专用章”及报告骑缝章无效;
This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. 报告抬头公司名称及地址、样品及样品信息由申请者提供, 申请者应对其真实性负责, CTI 未核实其真实性;
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;
3. 本报告检测结果仅对受测样品负责;
The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 除非另有说明, 报告参照 ILAC-G8:09/2019 / CNAS-GL015:2022 使用简单接受 (w=0) 二元判定规则进行符合性判定;
Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. 未经 CTI 书面同意, 不得部分复制本报告;
Without written approval of CTI, this report can't be reproduced except in full;
6. 如检测报告中的英文内容与中文内容有差异, 以中文为准。
In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** 报告结束 ***
*** End of Report ***