



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. : WTF26F01003302C
任务号/ Job No. : FSW2601060153CJ
委托方/ Applicant : 江阴六环合金线有限公司
JANGYIN LIUHUAN ALLOY WIRE CO., LTD
地址/ Address : 江苏省江阴市周庄镇江阴大道华宏路 17 号
NO. 17, HUAHONG ROAD, JIANGYIN AVENUE,
ZHOUZHUANG TOWN, JIANGYIN CITY. JIANGSU PROVINCE
样品名称/ Sample Name : 裸铜包钢线/ Bare copper-clad steel wire
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 : 2026-01-06
检测周期/ Testing Period : 2026-01-06 ~ 2026-01-10
报告日期/ Date of Issue : 2026-01-10
检测结果/ Test Result : 参见报告下页/ Refer to next page (s)

报告制作/ Prepared By:

佛山市沃特测试技术服务有限公司

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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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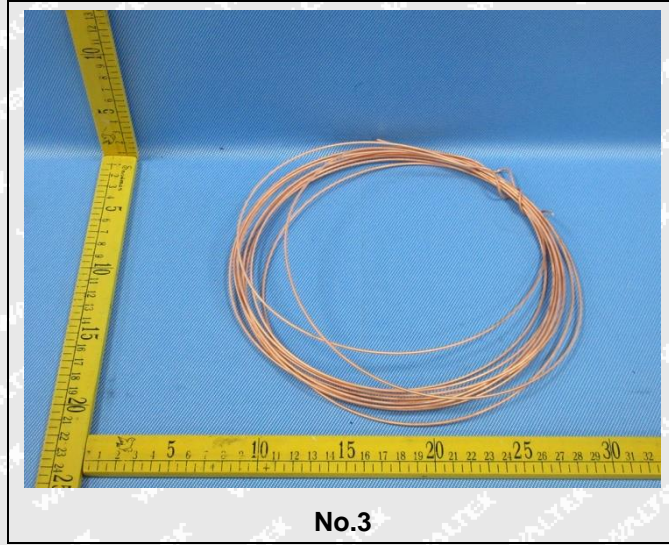
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样品图片 / Sample Photo:



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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 62321-7-1:2015, 使用 UV-Vis 检测六价铬含量
- 参考 IEC 62321-12:2023, 使用 GC-MS 检测多溴联苯, 多溴二苯醚, 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 62321-7-1:2015, determination of Cr⁶⁺ by UV-Vis
- With reference to IEC 62321-12:2023, determination of PBBs, PBDEs, 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.3	
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⁺)	µg/cm ²	0.10	阴性 Negative	▲
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	--
九溴二苯醚/ Nona-bromodiphenyl ether	mg/kg	5	ND	--



检测项目 Test Item(s)	单位 Unit	定量限 LOQ	结果 Result(s)	限值 Limit
			No.3	
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) $\mu\text{g}/\text{cm}^2$ = 微克每平方厘米/ $\mu\text{g}/\text{cm}^2$ = microgram per square centimeter

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

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

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

(5) "--"=未规定/ "--"=Not regulated

(6) ▲=根据 IEC 62321-7-1: 2015 沸水萃取:

阴性 = 表示涂层不存在 Cr^{6+} , 即在沸水萃取溶液中六价铬浓度小于 $0.10\mu\text{g}/\text{cm}^2$

不确定 = 即在沸水萃取溶液中六价铬浓度大于或等于 $0.10\mu\text{g}/\text{cm}^2$ 和小于或等于 $0.13\mu\text{g}/\text{cm}^2$

阳性 = 表示涂层存在 Cr^{6+} , 即在沸水萃取溶液中六价铬浓度大于 $0.13\mu\text{g}/\text{cm}^2$

关于金属样品的保存条件和生产日期将不能被采用, 其测试结果只能证明当下方法测试下样品是否存在/不存在 Cr^{6+} 。

▲ = According to IEC 62321-7-1:2015, boiling water extraction:

Negative = Absence of Cr^{6+} coating, the detected concentration in boiling water extraction solution is less than $0.10\mu\text{g}/\text{cm}^2$.

Inconclusive = the detected concentration in boiling water extraction solution is greater than or equal to $0.10\mu\text{g}/\text{cm}^2$ and less than or equal to $0.13\mu\text{g}/\text{cm}^2$.

Positive = Presence of Cr^{6+} coating, the detected concentration in boiling water extraction solution is greater than $0.13\mu\text{g}/\text{cm}^2$.

Information on storage conditions and production date of the tested sample is unavailable and thus Cr^{6+} results represent status of the sample at the time of testing.



测试流程图 / Testing Flow chart:

铅(Pb)、镉(Cd)、汞(Hg)



六价铬(Cr⁶⁺)

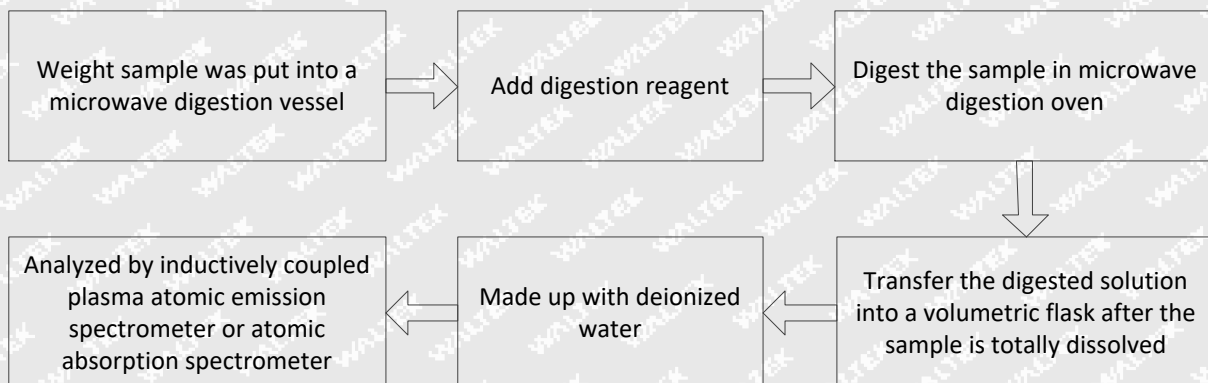


多溴联苯(PBBs)、多溴二苯醚(PBDEs)、邻苯二甲酸二正丁酯(DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)、邻苯二甲酸二异丁酯(DIBP)

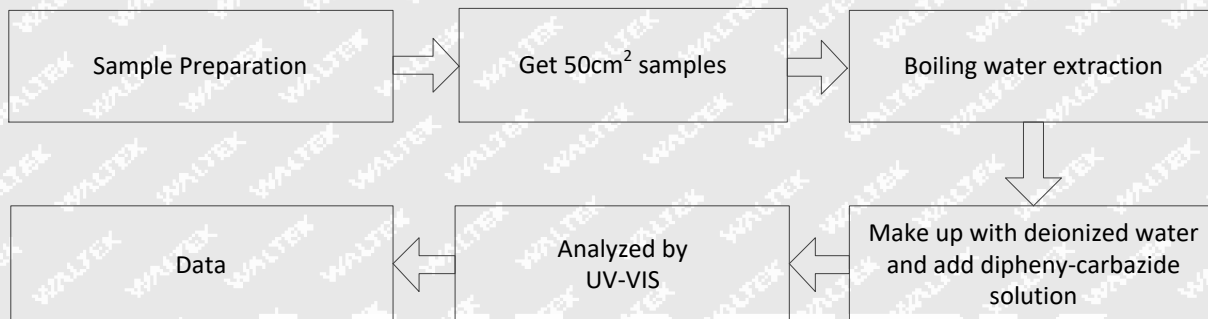




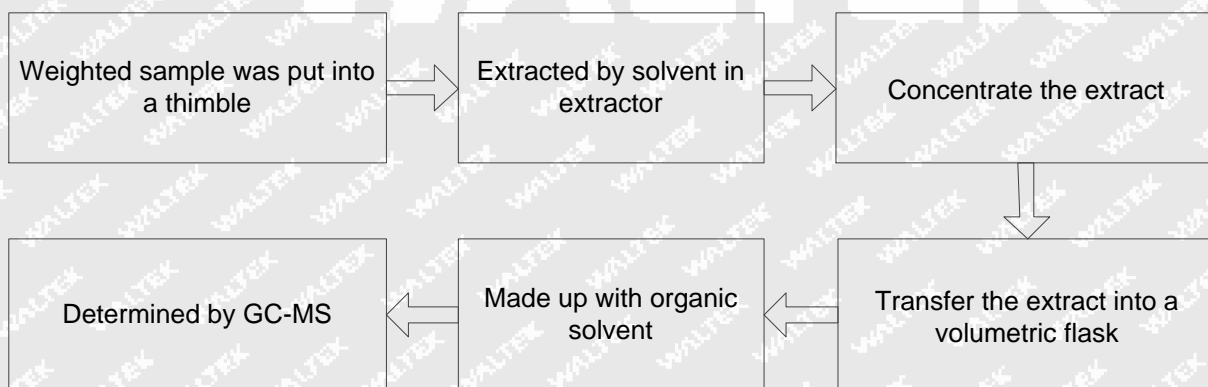
Lead(Pb), Cadmium(Cd), Mercury(Hg)



Hexavalent Chromium(Cr⁶⁺)



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 ID Specimen ID	样品编号 Specimen No.	样品描述 Specimen Description
FSW2601060153CJ. 3	3	铜色金属线 Coppery metal wire





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备注/ Remarks:

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