



BUREAU  
VERITAS

# TEST REPORT

LAB NO. : (6612)100-0798  
DATE : April 13, 2012  
PAGE : 1 OF 5

**APPLICANT**

: BOURNS (XIAMEN) LTD  
4/5 F, GUANGYAO BUILDING, TORCH HI-TECH INDUSTRIAL  
DEVELOPMENT ZONE, XIAMEN P.R.C. 361006

**申请人公司名称**

: 柏恩氏（厦门）电子有限公司  
厦门火炬高技术产业开发区光耀楼 4/5 楼

**DATE OF SUBMISSION**

: April 9, 2012

**样品收取日期**

: 2012 年 4 月 9 日

**TEST PERIOD**

: April 9, 2012 to April 13, 2012

**所需工作周期**

: 2012 年 4 月 9 日至 2012 年 4 月 13 日

**NO. OF WORKING DAY(S)**

: 5

**所需工作日**

: 5

**SAMPLE DESCRIPTION**

: One (1) received sample stated to be Foil  
Manufacturer: FURUKAWA

**TESTED ITEM 1 测试项目 1**

: Coppery/grey metal

## SUMMARY OF TEST RESULTS 测试结果摘要

TEST REQUESTED 测试要求	CONCLUSION 结论
Heavy Metals Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) 重金属含量 - 有关欧盟委员会针对电子产品的指令(电子电器禁用某些有害物质指令), 2011/65/EU	PASS 通过

**REMARK**

**备注**

If there are questions or concerns on this report, please contact the following persons:

若有任何疑问或咨询, 可通过下述联络方式与我们联络

General enquiry and invoicing

顾晶/许祥晖 小姐 Ms. Michelle Gu/Lucy Xu

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其他问题

Technical enquiry

余克刚/郭晔轩 先生 Mr. Gorden.Yu/ Kevin Guo

技术问题

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CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)

必维国际检验集团 - 必维申美商品检测(上海)有限公司

PREPARED BY : \_\_\_\_\_ Selma  
制定:

fa  
郭晔轩 Kevin Guo  
电子电器分析部实验室经理  
Electrical & Electronic Analytical LABORATORY MANAGER

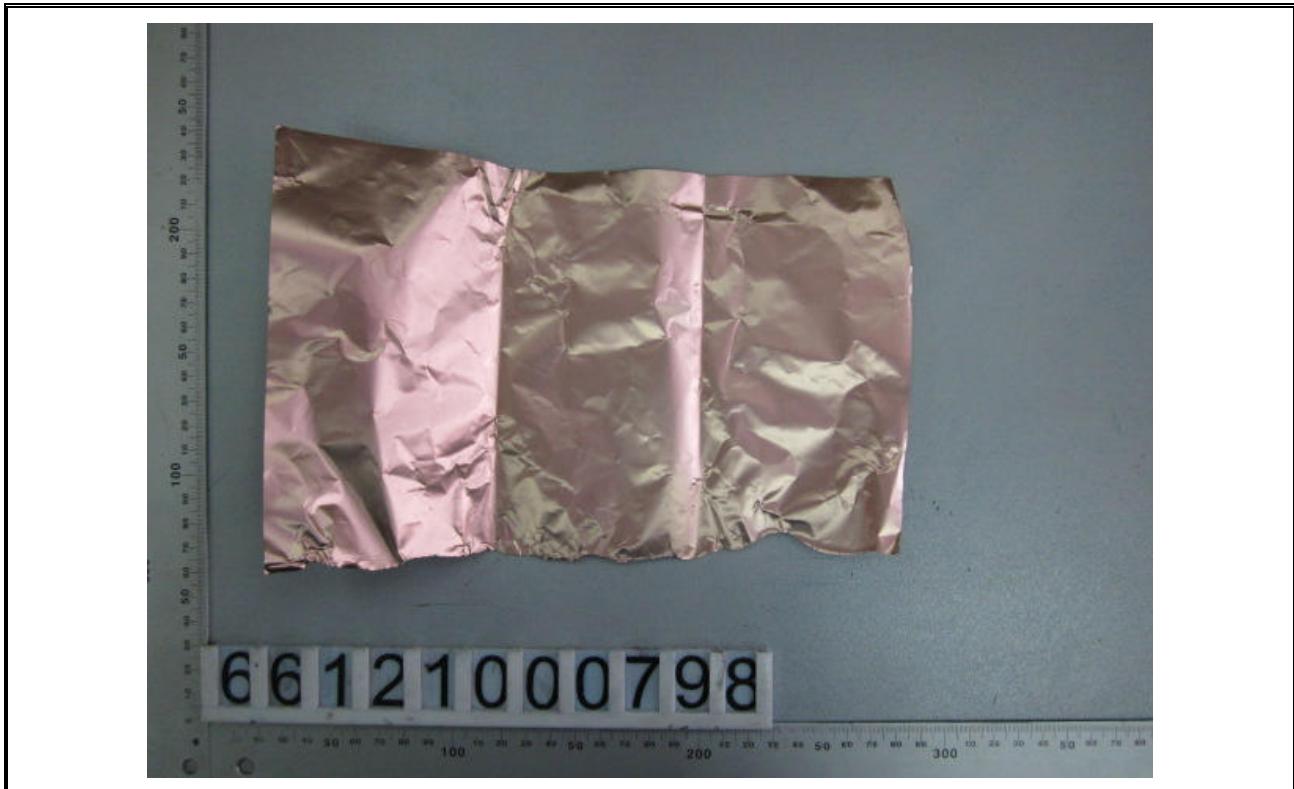
RW/2012



BUREAU  
VERITAS

LAB NO. : (6612)100-0798  
DATE : April 13, 2012  
PAGE : 2 OF 5

**Photo of the Submitted Sample**  
**所提交样品的照片**





LAB NO. : (6612)100-0798  
DATE : April 13, 2012  
PAGE : 3 OF 5

### TEST RESULT 测试结果

#### **Heavy Metals Content - European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)** **重金属含量 - 有关欧盟委员会针对电子产品的指令(电子电器禁用某些有害物质指令), 2011/65/EU**

**Test Method 测试方法** : See Appendix. 见附录。

<b>Test Item 测试项目</b>	<b>Description 描述</b>		
1	Coppery/grey metal		

	<b>Unit 单位</b>	<b>Maximum Allowable Limit (Req.) 最大允许限值 (要求)</b>	<b>Result 结果</b>
<b>Test Item 测试项目</b>	-	-	<b>1</b>
<b>Parameter 参数</b>	-	-	-
Lead (Pb) 铅	mg/kg	1000	ND
Cadmium (Cd) 镉	mg/kg	100	ND
Mercury (Hg) 汞	mg/kg	1000	ND
Chromium VI (Cr VI) 六价铬	mg/kg	Negative	Negative
<b>Conclusion 结论</b>	-	-	PASS 通过

**Note / Key 注释:**

ND = Not detected 未检出      ">" = Greater than 大于

mg/kg = milligram(s) per kilogram 毫克每千克

Req. = Requirement 要求

EX = Exempted 豁免

Detection Limit 检出限(mg/kg) :

Each (Pb, Cd, Hg & Cr VI) 2 各 (铅, 镉, 汞和六价铬) 2

**Remark 备注:**

- The list of analytes is summarized in table of Appendix. 分析物列表 – 见附录。
- The test flowchart of heavy metals and flame retardants content is listed in table of Appendix. 重金属和阻燃剂含量的测试流程图 – 见附录
- Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Council Directive 2011/65/EU, Article 4(1).  
金属材料的六价铬结果以阴性和阳性表示。阴性表示六价铬未被检出在测试表面, 即结果被认为符合 2011/65/EU 指令中, 条款 4(1) 的要求。而阳性则表示六价铬存在在测试表面, 即不符合 2011/65/EU 指令中, 条款 4(1) 的要求。
- According to European Council Directive 2011/65/EU, Article 5 "Adaptation of the Annexes to scientific and technical progress", exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.  
根据欧盟委员会 2011/65/EU 指令中, 条款 5“适应科学技术进步的附件”, 附件 III 和 IV 中列明的测试项目中的材料和部件可予以豁免。

END



LAB NO. : (6612)100-0798  
DATE : April 13, 2012  
PAGE : 4 OF 5

BUREAU  
VERITAS

## APPENDIX 附录

### List of Analytes and their Corresponding Test Methods [ European Council Directive 2011/65/EU ] : 分析物名单及其相应的测试方法 [ 欧盟委员会指令 2011/65/EU ] :

No.	Name of Analytes 分析物名称	Test Method(s) 测试方法
1	Lead (Pb) 铅	With reference to EN 62321: 2009, Clauses 8, 9 and 10. 参照 EN 62321: 2009, Clauses 8, 9 and 10.
2	Cadmium (Cd) 镉	
3	Mercury (Hg) 汞	With reference to EN 62321: 2009, Clause 7. 参照 EN 62321: 2009, Clause 7.
4	Chromium VI (Cr VI) 六价铬	<u>Metal 金属:</u> With reference to EN 62321: 2009, Annex B <sup>[a]</sup> . 参照 EN 62321: 2009, Annex B <sup>[a]</sup> . <u>Polymers &amp; Electronics 聚合物及电子:</u> With reference to EN 62321: 2009, Annex C. 参照 EN 62321: 2009, Annex C.
5	Polybromobiphenyls (PBBs) 多溴联苯 - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	With reference to EN 62321: 2009, Annex A. 参照 EN 62321: 2009, Annex A.
6	Polybromodiphenyl ethers (PBDEs) 多溴联苯醚 - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	

[a]

The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples.

该方法的原理是在由 IEC TC111 WG3 组织的两次研究中得到了充分评估并获得了认可。这些研究侧重于对金属样品上防腐涂层中六价铬的存在的检测(定性测试)。



BUREAU  
VERITAS

LAB NO. : (6612)100-0798  
DATE : April 13, 2012  
PAGE : 5 OF 5

## APPENDIX 附录

Test Flowchart of Heavy Metals and Flame Retardants Content [ European Council Directive 2011/65/EU ]:  
重金属和阻燃剂的测试流程图[ 欧盟委员会指令 2011/65/EU ]:

