

### Material Test Reports - Insulated Terminals

Materials test reports as supplied from our manufacturer/partner for Insulated Terminals, manufactured and tested to meet Cablecraft standards.



The Cablecraft Group of Companies



**CABLECRAFT-RAIL™**  
creative wiring solutions



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Cert. No. 9277

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VAT No. GB 639 920 900 Co. Reg. No. 2478297

## 測試報告

號碼(No.) : KA/2016/40742

日期(Date) : 2016/04/21

頁數(Page): 1 of 5

## Test Report

集勝端子股份有限公司

JEESOOON TERMINALS CO., LTD.

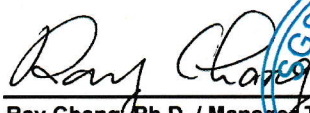
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NO.11, LANE 102, SEC-2, CHANG SOYE ROAD, HSIU SHUI HSIANG, CHANG HUA HSIEN, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

樣品名稱(Sample Description) : 紅銅鍍錫 (TIN PLATED COPPER)  
樣品型號(Style/Item No.) : G-N  
收件日期(Sample Receiving Date) : 2016/04/14  
測試期間(Testing Period) : 2016/04/14 TO 2016/04/21  
送樣廠商(Sample Submitted By) : 集勝端子股份有限公司 (JEESOOON TERMINALS CO., LTD.)

=====  
測試需求(Test Requested) : 依據客戶要求, 參考 RoHS 指令 2011/65/EU Annex II 測試鎘、鉛、汞、六價鉻。 (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI) contents in the submitted sample.)  
測試方法(Test Method) : 請見下一頁 (Please refer to next pages).  
測試結果(Test Results) : 請見下一頁 (Please refer to next pages).  
結論(Conclusion) : 根據客戶所提供的樣品, 其鎘、鉛、汞、六價鉻的測試結果符合 RoHS 指令 2011/65/EU Annex II之限值要求 (Based on the performed tests on submitted samples, the test result(s) of Cadmium, Lead, Mercury, Cr(VI) comply with the limits as set by RoHS Directive 2011/65/EU Annex II.)

  
Ray Chang, Ph.D. / Manager  
Signed for and on behalf of  
SGS Taiwan Limited  
Chemical Laboratory-Kaohsiung



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### 測試結果(Test Results)

測試部位(PART NAME)No.1 : 銀色 紅銅鍍錫 (SILVER TIN PLATED COPPER)

| 測試項目<br>(Test Items)                    | 單位<br>(Unit)       | 測試方法<br>(Method)                                                                                           | 方法偵測<br>極限值<br>(MDL) | 結果<br>(Result) | 限值<br>(Limit) |
|-----------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------|----------------------|----------------|---------------|
|                                         |                    |                                                                                                            |                      | No.1           |               |
| 鎘 / Cadmium (Cd)                        | mg/kg              | 參考 IEC 62321-5: 2013 方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES. | 2                    | n.d.           | 100           |
| 鉛 / Lead (Pb)                           | mg/kg              | 參考 IEC 62321-5: 2013 方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-5: 2013 and performed by ICP-AES. | 2                    | n.d.           | 1000          |
| 汞 / Mercury (Hg)                        | mg/kg              | 參考 IEC 62321-4: 2013 方法, 以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321-4: 2013 and performed by ICP-AES. | 2                    | n.d.           | 1000          |
| 六價鉻 / Hexavalent Chromium<br>Cr(VI)(#2) | µg/cm <sup>2</sup> | 參考 IEC 62321-7-1:2015, 以UV-VIS檢測. / With reference to IEC 62321-7-1:2015 and performed by UV-VIS.          | 0.10                 | n.d.           | -             |

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### 備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. (#2) =
  - a. 當六價鉻結果大於 $0.13 \mu\text{g}/\text{cm}^2$ ，表示樣品表層含有六價鉻。 / The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than  $0.13 \mu\text{g}/\text{cm}^2$ . The sample coating is considered to contain Cr(VI).
  - b. 當六價鉻結果為n.d. (濃度小於 $0.10 \mu\text{g}/\text{cm}^2$ )，表示表層不含六價鉻。 / The sample is negative for Cr(VI) if Cr(VI) is n.d. (concentration less than  $0.10 \mu\text{g}/\text{cm}^2$ ). The coating is considered a non-Cr(VI) based coating.
  - c. 當六價鉻結果介於  $0.10$  及  $0.13 \mu\text{g}/\text{cm}^2$  時，無法確定塗層是否含有六價鉻。 / The result between  $0.10 \mu\text{g}/\text{cm}^2$  and  $0.13 \mu\text{g}/\text{cm}^2$  is considered to be inconclusive - unavoidable coating variations may influence the determination.

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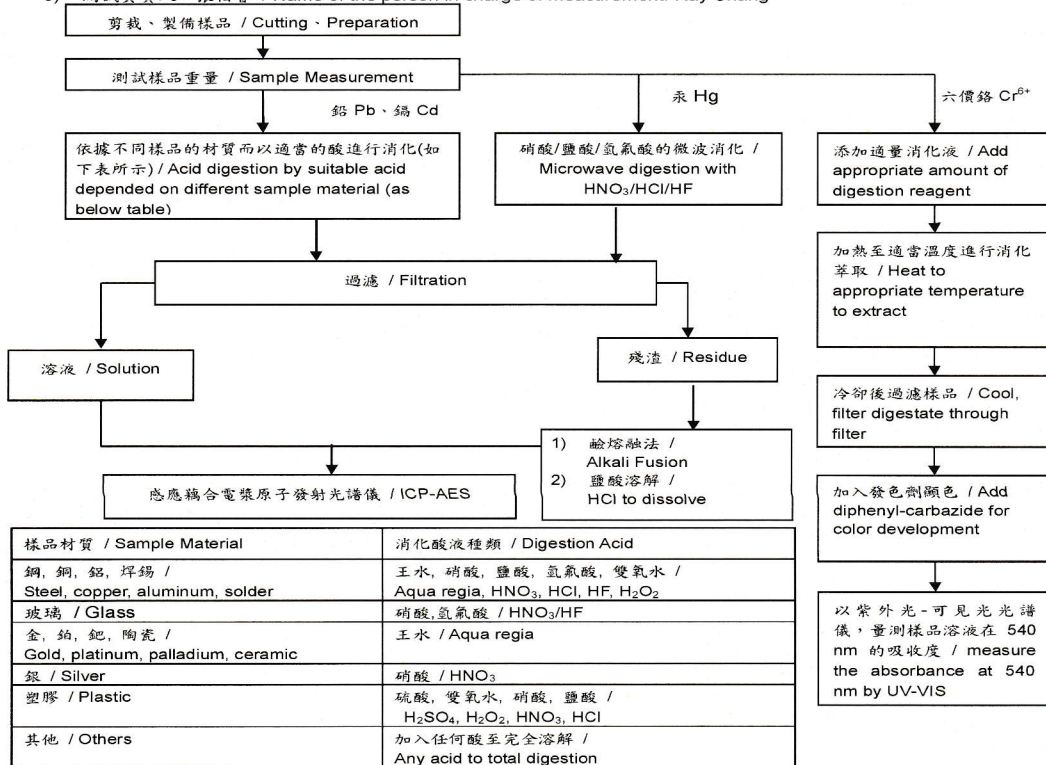
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr<sup>6+</sup> test method excluded)
- 2) 測試人員：劉俊宏 / Name of the person who made measurement: Jony Liu
- 3) 測試負責人：張伯睿 / Name of the person in charge of measurement: Ray Chang



**Note\*\*:** (1) 針對非金屬材料加入鹼性消化液，加熱至 90~95℃ 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95℃.

(2) 針對金屬材料加入純水，加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

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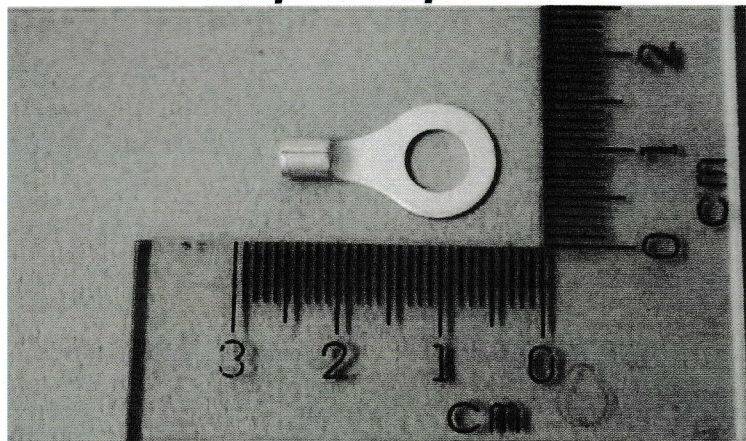
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\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。\*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

### KA/2016/40742



\*\* 報告結尾 (End of Report) \*\*

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