

## 測試報告

號碼(No.) : CE/2018/C3814

日期(Date) : 2018/12/25

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## Test Report

煌傑金屬複合材料科技股份有限公司 / HUANG CHIEH METAL COMPOSITE MATERIAL TECH CO., LTD.



(佛山市南海煌鋼金屬制品有限公司 / FOSHAN NANHAI HUANGGANG METAL PRODUCTS CO., LTD.)

(昆山煌鋼金屬科技有限公司 / KUNSHAN HUANG GANG METAL SCIENCE TECHNOLOGY CO., LTD.)

(昆山濟展金屬科技有限公司 / KUNSHAN JI ZHANG METAL SCIENCE TECHNOLOGY CO., LTD.)

新北市樹林區大安路18之1號 / NO. 18-1, DA-AN ROAD, SHUN-LIN DISTRICT, NEW TAIPEI CITY, TAIWAN

(廣東省佛山市南海區獅山鎮官窯大欖工業區 / DALAN INDUSTRIAL ZONE, GUANYAO SHI-SHAN TOWN, NANHAI DISTRICT, FOSHAN CITY, GUANGDONG PROVINCE, CHINA)

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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) : CARBON STEEL (碳鋼)  
樣品型號(Style/Item No.) : SKS7  
收件日期(Sample Receiving Date) : 2018/12/20  
測試期間(Testing Period) : 2018/12/20 to 2018/12/25

=====  
測試需求(Test Requested) : 依據客戶指定, 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(s).)

測試方法(Test Method) : 請參閱下一頁 (Please refer to following pages).

測試結果(Test Results) : 請參閱下一頁 (Please refer to following 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 2011/65/EU Annex II 之限值要求. (Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI) comply with the limits as set by RoHS Directive 2011/65/EU Annex II.)

  
Troy Chang, Manager - Tech  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei

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### 測試結果(Test Results)

測試部位(PART NAME)No. 1 : 銀色金屬片 (SILVER COLORED METAL SHEET)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)	限值 (Limit)
				No. 1	
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013), 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		2	n. d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4 (2013), 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 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.	-

### 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 µg/cm<sup>2</sup>, 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 µg/cm<sup>2</sup>. 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 µg/cm<sup>2</sup>), 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 µg/cm<sup>2</sup>). The coating is considered a non-Cr(VI) based coating.
  - c. 當六價鉻結果介於 0.10 及 0.13 µg/cm<sup>2</sup> 時, 無法確定塗層是否含有六價鉻. / The result between 0.10 µg/cm<sup>2</sup> and 0.13 µg/cm<sup>2</sup> is considered to be inconclusive - unavoidable coating variations may influence the determination.

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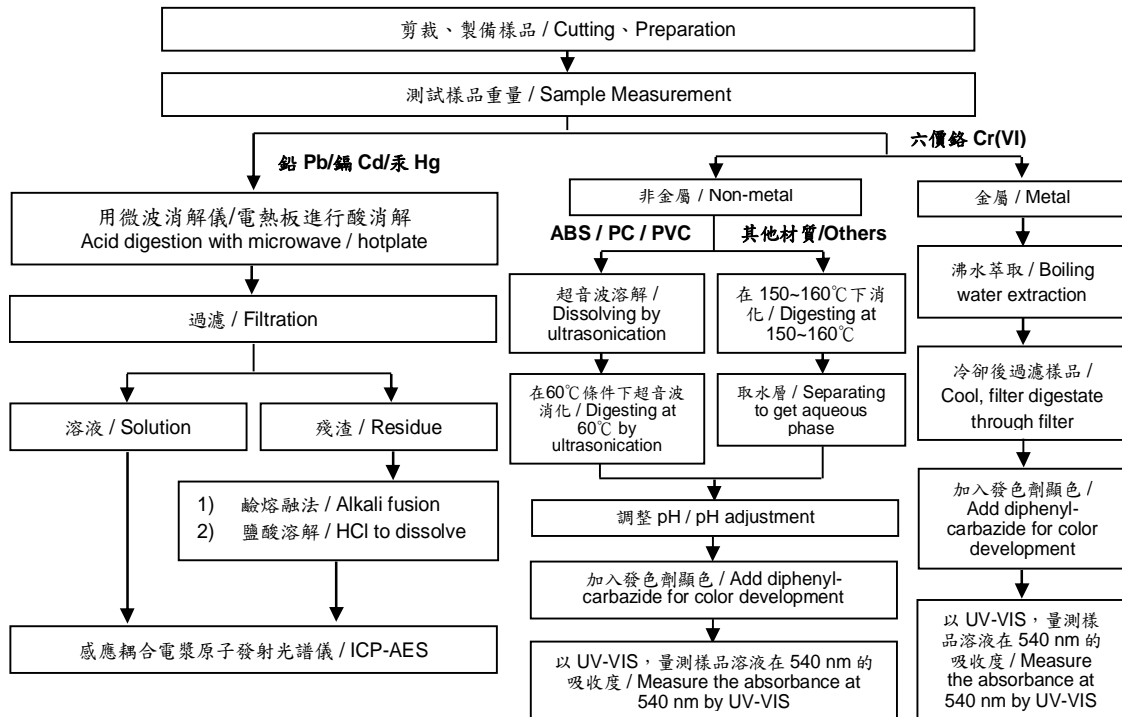
### 重金屬流程圖 / Analytical flow chart of Heavy Metal

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)

■ 測試人員：陳思臻 / Technician : Rita Chen

■ 測試負責人：張啟興 / Supervisor: Troy Chang



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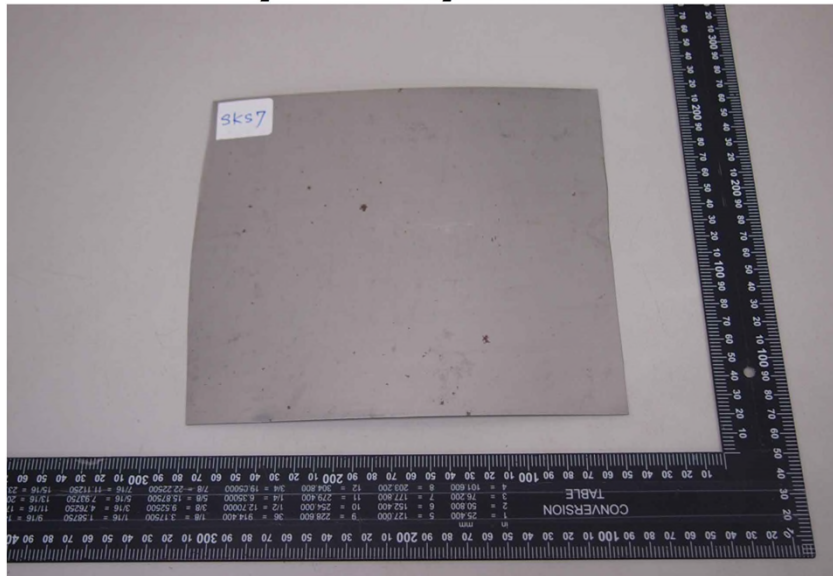
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\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。 \*  
(The tested sample / part is marked by an arrow if it's shown on the photo.)

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\*\* 報告結尾 (End of Report) \*\*

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