

測試報告

號碼：CE/2006/C2566B 日期：2007/01/02 頁數：1 of 5

勛昇科技股份有限公司



EXTENSIVE TECHNOLOGY CO., LTD.

台北市內湖區洲子街79號11樓

11F., NO. 79, ZHOUZI ST., NEIHU DISTRICT, TAIPEI CITY 11493,
TAIWAN

本報告為客戶所委託的樣品，樣品名稱為"各項功率塑封產品"所做的測試。

Report on the submitted sample said to be POWER PLASTIC MOLDED PRODUCTS.

樣品型號(Style/Item No) : TO-220AB / TO-220AC / IT0-220AB / ITO-220AC / TO-263 /
TO-3P(TO-247)


收件日期(Sample Receiving Date) : 2006/12/12

測試期間(Testing Period) : 2006/12/12 TO 2006/12/19

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測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求。 / In accordance with the
RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method : (1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量。 / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.
(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量。 / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.
(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量。 / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
(4) 針對金屬材質之樣品, 參考IEC 62321, Ed. 1 111/54/CDV方法檢測, 用 Spot test / Colorimetric方法檢測六價鉻含量。 / With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for metallic samples by Spot test / Colorimetric Method.
(5) 針對非金屬材質之樣品, 參考IEC 62321, Ed. 1 111/54/CDV方法檢測, 用UV-VIS檢測六價鉻含量。 / With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.
(6) 參考US EPA 3540C方法, 以氣相層析儀/質譜儀(GC/MS)檢測多溴聯苯和多溴聯苯醚含量。 / With reference to US EPA 3540C for PBBs/PBDEs Content. Analysis was performed by GC/MS.

測試結果 / Test Result(s) : 請見下一頁。


Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

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測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result			方法偵測 極限值 (MDL)
		No.1	No.2	No.3	
鎘 / Cadmium (Cd)	(1)	3.6	---	n.d.	2
鉛 / Lead (Pb)	(2)	47.8	---	1553.7	2
汞 / Mercury (Hg)	(3)	n.d.	---	n.d.	2
六價鉻 (Spot test / boiling water extraction)	(4)	---	Negative	---	See Note 5
六價鉻 (Alkaline extraction)	(5)	---	---	n.d.	2
多溴聯苯總和 / Sum of PBBs	(6)	---	---	n.d.	-
一溴聯苯 / Monobromobiphenyl		---	---	n.d.	5
二溴聯苯 / Dibromobiphenyl		---	---	n.d.	5
三溴聯苯 / Tribromobiphenyl		---	---	n.d.	5
四溴聯苯 / Tetrabromobiphenyl		---	---	n.d.	5
五溴聯苯 / Pentabromobiphenyl		---	---	n.d.	5
六溴聯苯 / Hexabromobiphenyl		---	---	n.d.	5
七溴聯苯 / Heptabromobiphenyl		---	---	n.d.	5
八溴聯苯 / Octabromobiphenyl		---	---	n.d.	5
九溴聯苯 / Nonabromobiphenyl		---	---	n.d.	5
十溴聯苯 / Decabromobiphenyl		---	---	n.d.	5
多溴聯苯醚總和 (一至九溴) / Sum of PBDEs (Mono to Nona) (Note 4)		---	---	n.d.	-
一溴聯苯醚 / Monobromobiphenyl ether		---	---	n.d.	5
二溴聯苯醚 / Dibromobiphenyl ether		---	---	n.d.	5
三溴聯苯醚 / Tribromobiphenyl ether		---	---	n.d.	5
四溴聯苯醚 / Tetrabromobiphenyl ether		---	---	n.d.	5
五溴聯苯醚 / Pentabromobiphenyl ether		---	---	n.d.	5
六溴聯苯醚 / Hexabromobiphenyl ether		---	---	n.d.	5
七溴聯苯醚 / Heptabromobiphenyl ether		---	---	n.d.	5
八溴聯苯醚 / Octabromobiphenyl ether		---	---	n.d.	5
九溴聯苯醚 / Nonabromobiphenyl ether	---	---	n.d.	5	
十溴聯苯醚 / Decabromobiphenyl ether	---	---	n.d.	5	
多溴聯苯醚總和 (一至十溴) / Sum of PBDEs (Mono to Deca)	---	---	n.d.	-	

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測試部位描述 / Test Part Description:

- NO.1 : 混測所有銀色金屬 / MIXED ALL SILVER COLORED METAL
NO.2 : 混測所有銀色金屬鍍層 / MIXED ALL PLATING LAYER OF SILVER COLORED METAL
NO.3 : 整顆本體混合測試 / MIXED ALL PARTS OF BODY

Note : 1. mg/kg = ppm

2. n.d. = Not Detected / 未檢出

3. MDL = Method Detection Limit / 方法偵測極限值

4. Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.

根據2005年10月13日歐盟會議公佈2005/717/EC，修訂2002/95/EC內容，通過解除
高分子材質中十溴聯苯醚之使用限制。

5. Spot-test:

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

(The tested sample should be further verified by boiling-water-extraction method if the
spot test result cannot be confirmed.)

Negative=鍍層中偵測不到六價鉻，Positive= 鍍層中偵測到六價鉻；

當該測項無法確認時，測試樣品可藉由boiling-water-extraction測試方法進一步確認

Boiling-water-extraction:

Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction
solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Negative=鍍層中偵測不到六價鉻，Positive=鍍層中偵測到六價鉻；

該濃度溶液 ≥ 0.02 mg/kg with 50 cm² (sample surface area)

6. "-" = Not Regulated / 無規格值

7. "---" = Not Conducted / 未測項目

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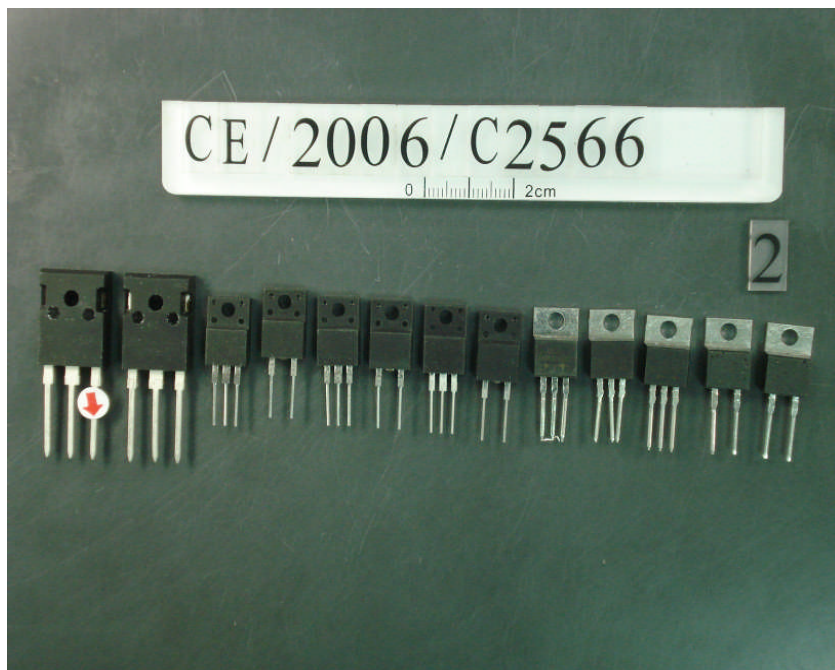
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