

Test Report

No. : CE/2012/64663 Date : 2012/07/16 Page : 1 of 5

BOURNS INC.
1200 COLUMBIA AVE. RIVERSIDE, CA 92507, USA



The following sample(s) was/were submitted and identified by/on behalf of the client as:

Sample Description : BOURNS MULTIFUSE
Style/Item No. : SMD PAD USED IN MF-MSMF SERIES, MF-USMF SERIES, MF-NSMF SERIES, AND MF-SMDF SERIES
Sample Receiving Date : 2012/06/25
Testing Period : 2012/06/25 TO 2012/07/16

=====
Test Requested : 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.
Test Method : With reference to IEC 62321: 2008.
Test Result(s) : Please refer to next page(s).



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

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Test Result(s)

PART NAME No.1 : PLATING LAYER OF GOLDEN COLORED METAL
PART NAME No.2 : COPPER COLORED METAL WITH YELLOW SHEET

Test Item(s)	Unit	Method	MDL	Result	
				No.1	No.2
Cadmium (Cd)	mg/kg	IEC 62321: 2008 application of modified digestion by surface etching and performed by ICP-AES.	2	n.d.	---
	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	---	n.d.
Lead (Pb)	mg/kg	IEC 62321: 2008 application of modified digestion by surface etching and performed by ICP-AES.	2	40	---
	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	---	n.d.
Mercury (Hg)	mg/kg	IEC 62321: 2008 application of modified digestion by surface etching and performed by ICP-AES.	2	n.d.	---
	mg/kg	With reference to IEC 62321: 2008 and performed by ICP-AES.	2	---	n.d.
Hexavalent Chromium Cr(VI)	**	With reference to IEC 62321: 2008 and performed by Boiling water extraction Method.#	#	Negative	Negative

Note :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. "---" = Not Conducted
5. ** = Qualitative analysis (No Unit)
6. # = a. Positive means the presence of CrVI on the tested areas
b. Negative means the absence of CrVI on the tested areas

The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² tested areas.

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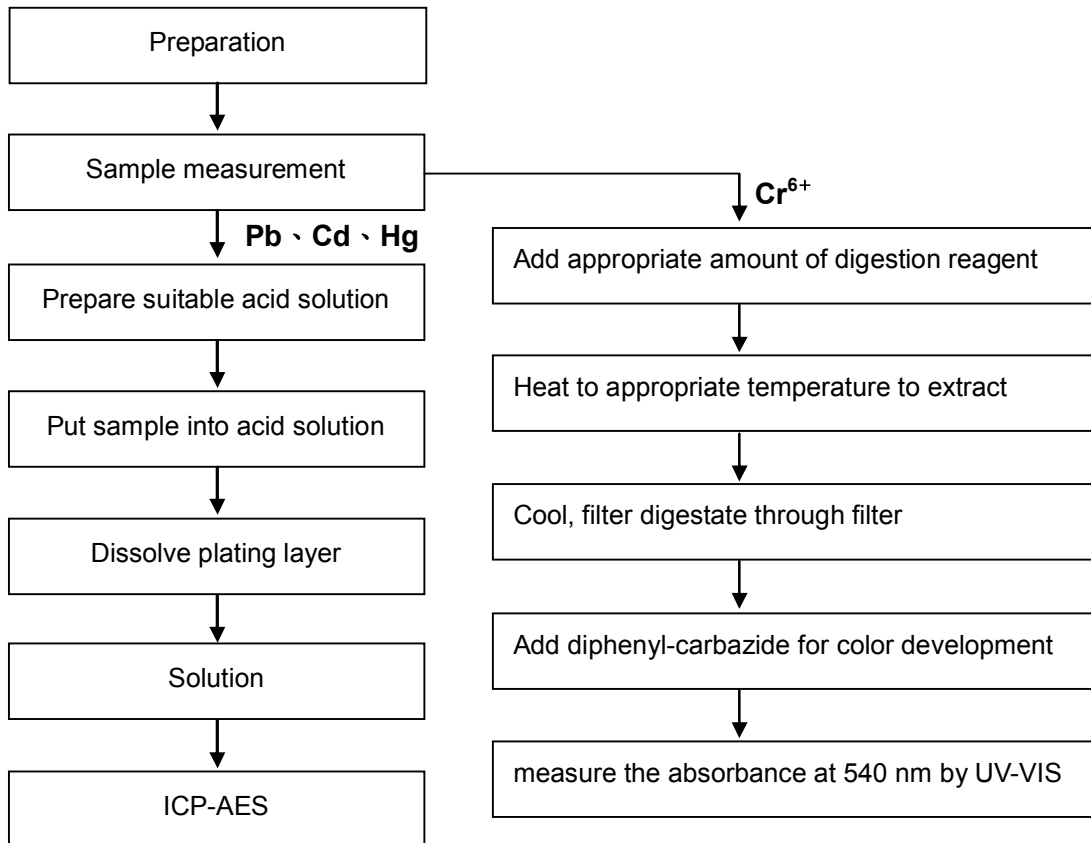
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1200 COLUMBIA AVE. RIVERSIDE, CA 92507, USA



PART NAME No.1

- 1) The plating layer of samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Climbgreat Yang
- 3) Name of the person in charge of measurement: Troy Chang

Flow Chart of Stripping method for metal analysis



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Test Report

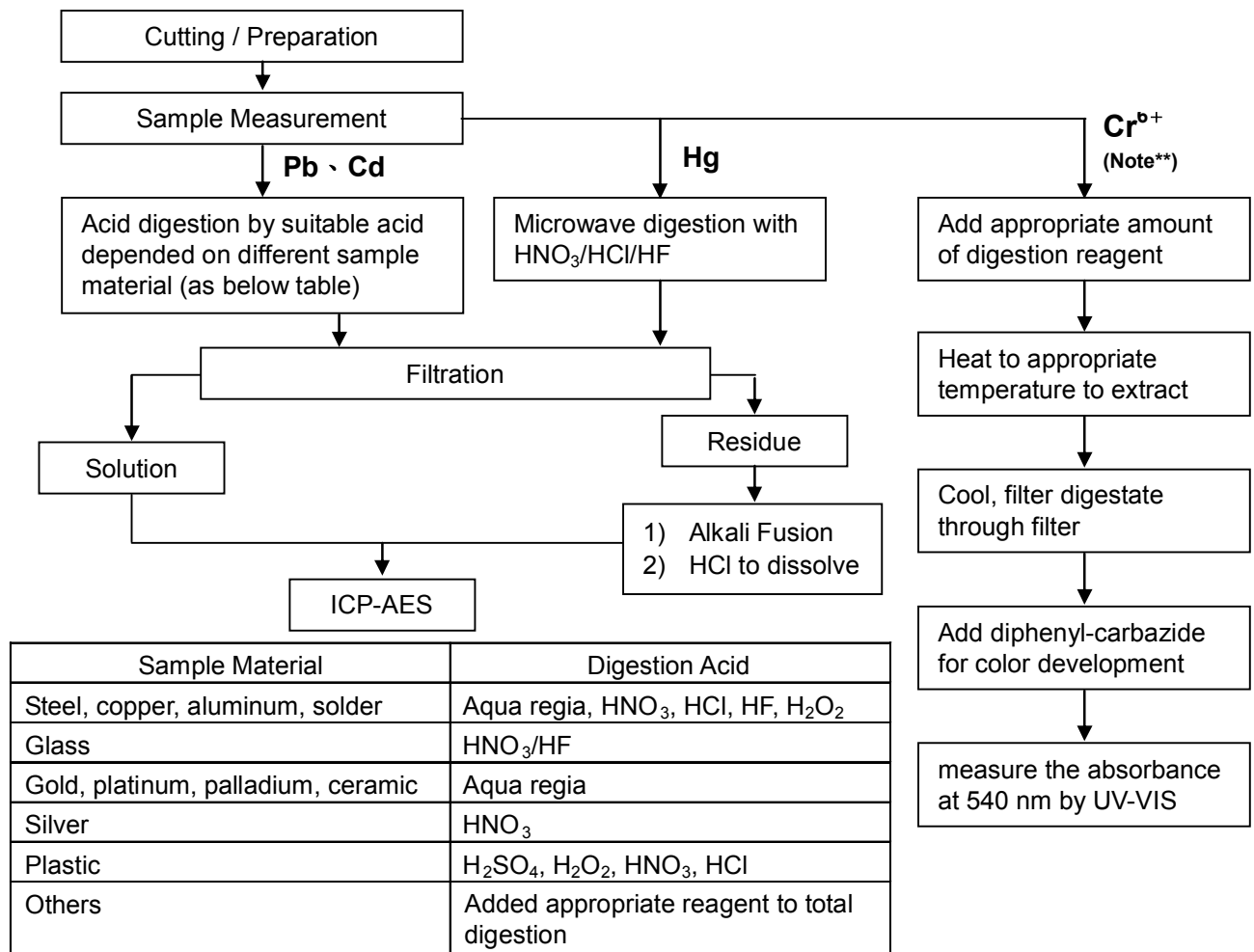
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PART NAME No.2

- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Climbgreat Yang
- 3) Name of the person in charge of measurement: Troy Chang



Note :** (1) For non-metallic material, add alkaline digestion reagent and heat to 90~95 °C.
(2) For metallic material, add pure water and heat to boiling.

Test Report

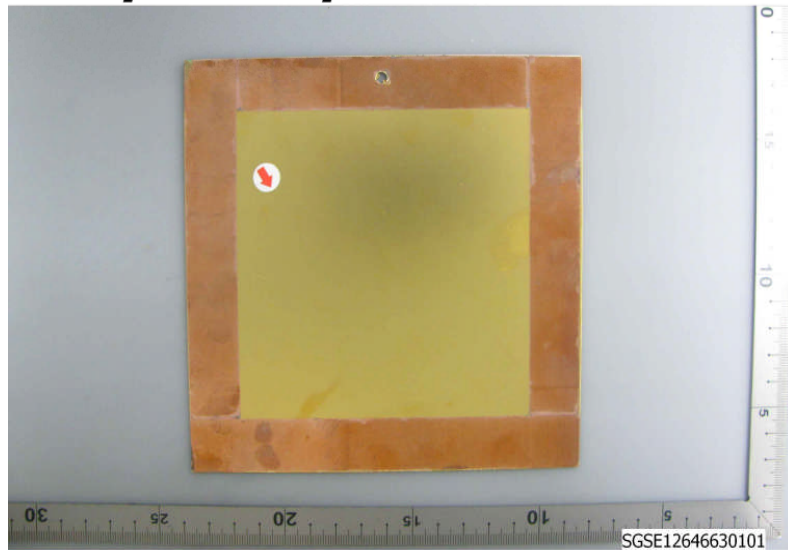
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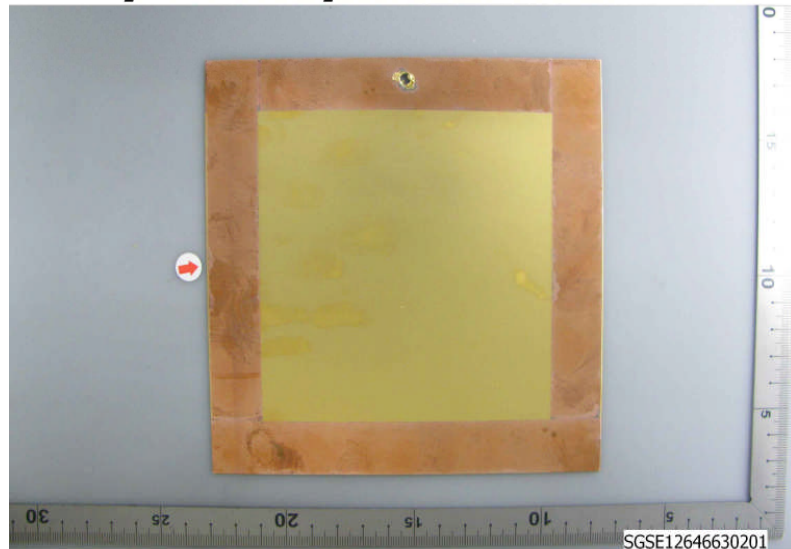


* The tested sample / part is marked by an arrow if it's shown on the photo. *

CE/2012/64663 NO.1



CE/2012/64663 NO.2



**** End of Report ****

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