ICP Test Report Certification Packet

Company name: Littelfuse, Inc.

Product Series: **L60030 Series – Fuse Block**

Product #: L60030M*1C(*2C*3C)
L60030*M3SQ（M1SQ—M2SQ)
L60030*M3PQ （M1PQ—M2PQ)
L60030*C1C(*C2C *C3C)
L60030C*1SQ(*2SQ*3SQ)
L60030C*1PQ(*2PQ*3PQ)

Issue Date: October 5, 2011

It is hereby certified by Littelfuse, Inc. that there is neither RoHS (EU Directive 2002/95/EC)-restricted substance nor such use, for materials to be used for unit parts, for packing/packaging materials, and for additives and the like in the manufacturing processes.
In addition, it is hereby reported to you that the parts and sub-materials, the materials to be used for unit parts, the packing/packaging materials, and the additives and the like in the manufacturing processes, are all composed of the following components.

Issued by: KRISTEEN BACILA

<Global EHS Manager >

(1) Parts, sub-materials and unit parts

This document covers the L60030 Fuse Block Series RoHS-Compliant series products manufactured by Littelfuse, Inc.

＜ Raw Materials Used

Please see Table 1

(2) The ICP data on all measurable substances

Please see appropriate pages as identifed in Table 1

Remarks :

Table 1: List of Raw Materials covered by this report

Total Parts	Raw Material Part Number	Raw Material Description	Page(s)
1	868-069	Fuse Block (PBT Valox)	3-8
2	882-649	Rejection Member (PBT Valox) (same with 868-069)	3-8
3	100060	Fuse Clip (Cu Alloy)	9-13
4	100069	Fuse Clip (Cu Alloy)	9-13
5	902-122	Self Tapping Phillips screw (Zinc Plated Steel)	14-18
6	902-119	Type B Self Tapping Screw (Zinc Plated Steel)	14-18
7	903-117	Square Nut (Steel)	14-18
8	902-139	Binding Head Screw (Zinc Plated Steel)	14-18
9	902-140	Pressure Plate Screw (Zinc Plated Steel)	14-18
10	N/A	Printing Ink - ROHS	19-25
11	N/A	Printing Ink - Halogens	26-28
12	929-023	Guide Spring (304 Steel)	29-33
13	N/A	Tin Plating of Cu Alloy	34-37
14	N/A	Zinc Plating of 304 Steel	38-41

Test Report Number : TWNC00216853

Applicant: Littelfuse Inc. Date : Jul 25, 2011
LIMA Technology Center, Lipa City,
Malvar, Batangas

Sample Description:
One (1) group of submitted samples said to be :
Part Description : PBT Valox
Part Number :
Date Sample Received : Jul 19, 2011
Date Test Started : Jul 19, 2011

Test Conducted :
As requested by the applicant, for details please refer to attached pages.

Authorized By:
On Behalf Of Intertek Testing Services
Taiwan Limited

K. Y. Liang
Director

Intertek Testing Services Taiwan Ltd.
8F., No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan, R.O.C.
全國公證檢驗股份有限公司
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Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401

Number : TWNC00216853

Test Conducted

(Ⅰ) Test Result Summary :

Test Item	Result (ppm)
	Black Plastic
Heavy Metal	
Cadmium (Cd) content	ND
Lead (Pb) content	28
Mercury (Hg) content	ND
Chromium VI (Cr^{6+}) content	ND
Polybrominated Biphenyls (PBBs)	
Monobrominated Biphenyls (MonoBB)	ND
Dibrominated Biphenyls (DiBB)	ND
Tribrominated Biphenyls (TriBB)	ND
Tetrabrominated Biphenyls (TetraBB)	ND
Pentabrominated Biphenyls (PentaBB)	ND
Hexabrominated Biphenyls (HexaBB)	ND
Heptabrominated Biphenyls (HeptaBB)	ND
Octabrominated Biphenyls (OctaBB)	ND
Nonabrominated Biphenyls (NonaBB)	ND
Decabrominated Biphenyl (DecaBB)	ND
Polybrominated Diphenyl Ethers (PBDEs)	
Monobrominated Diphenyl Ethers (MonoBDE)	ND
Dibrominated Diphenyl Ethers (DiBDE)	ND
Tribrominated Diphenyl Ethers (TriBDE)	ND
Tetrabrominated Diphenyl Ethers (TetraBDE)	ND
Pentabrominated Diphenyl Ethers (PentaBDE)	ND
Hexabrominated Diphenyl Ethers (HexaBDE)	ND
Heptabrominated Diphenyl Ethers (HeptaBDE)	ND
Octabrominated Diphenyl Ethers (OctaBDE)	ND
Nonabrominated Diphenyl Ethers (NonaBDE)	ND
Decabrominated Diphenyl Ether (DecaBDE)	ND
Halogen Content	
Fluorine (F)	ND
Chlorine (Cl)	ND
Bromine (Br)	ND
Iodine (I)	ND

Remarks: ppm = Parts per million based on weight of tested sample = mg/kg
ND = Not detected

Responsibility of Chemist : Irene Chiou / Kevin Liu / Cathy Chen

Date Sample Received : Jul 19, 2011
Test Period : Jul 19, 2011 To Jul 22, 2011

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Number : TWNC00216853

Test Conducted

(Ⅱ) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr^{6+}) Content	0.1% (1000ppm)
Polybrominated Biphenyls (PBBs)	0.1% (1000ppm)
Polybrominated Diphenyl Ehters (PBDEs)	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

(Ⅲ) Test Method:

Test Item	Test Method	Reporting Limit
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr^{6+}) content	With reference to IEC 62321 edition 1.0:2008 in annex C, by alkaline digestion and determined by UV-Vis spectrophotometer.	1 ppm
Polybrominated Biphenyls (PBBs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	With reference to IEC 62321 edition 1.0:2008 in annex A, by solvent extraction and determined by GC-MSD and further HPLC confirmation when necessary.	5 ppm
Halogen Content	With reference to EN 14582:2007 by calorimetric bomb with oxygen and determined by ion chromatography	50 ppm

Remark: Reporting limit = Quantitation limit of analyte in sample

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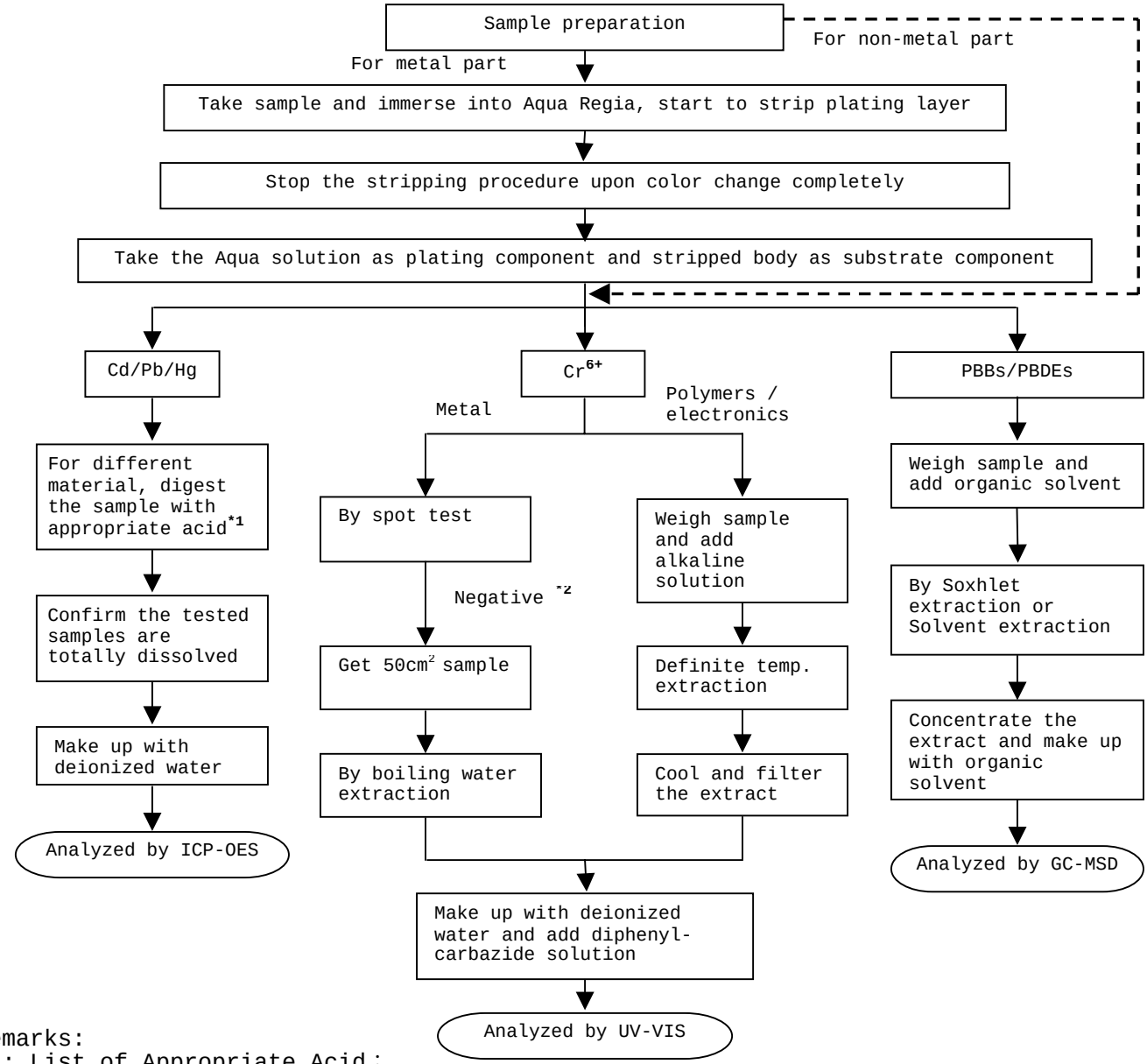
Number : TWNC00216853

Test Conducted

(Ⅳ) Measurement Flowchart:

Test for Cd/Pb/Hg/Chromium (VI)/PBBS/PBDES Contents

Reference Standard: IEC 62321 edition 1.0:2008



Remarks:

*1: List of Appropriate Acid：

Material	Acid Added for Digestion
Polymers	HNO_3, HCl, HF, H_2O_2, H_3BO_3
Metals	HNO_3, HCl, HF
Electronics	HNO_3, HCl, H_2O_2, HBF_4

*2: If the result of spot test is positive, Chromium VI would be determined as detected.

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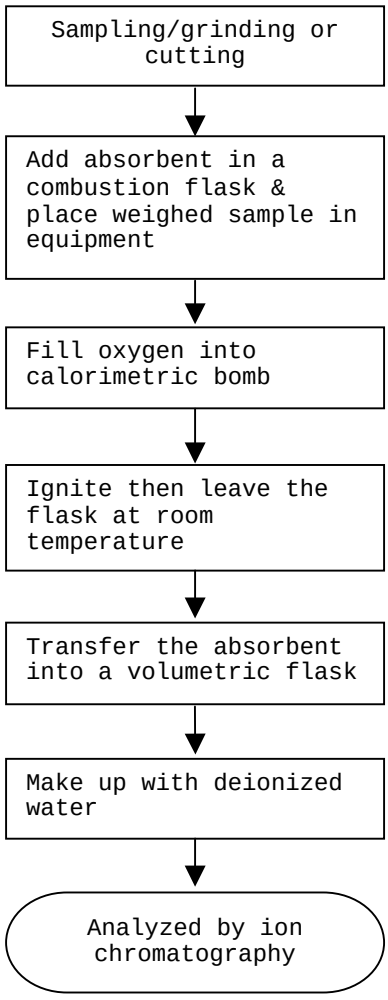
Test Conducted

(Ⅳ) Measurement Flowchart:

Test for Halogen Content
Reference Standard：EN 14582



End of Report

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Number : TWNC00216853

Test Conducted

Photo

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Test Report Number : TWNC00216856

Applicant: Littelfuse Inc. Date : Jul 25, 2011
LIMA Technology Center, Lipa City,
Malvar, Batangas

Sample Description:
One (1) group of submitted samples said to be :
Part Description : Copper Alloy
Date Sample Received : Jul 19, 2011
Date Test Started : Jul 20, 2011

Test Conducted :
As requested by the applicant, for details please refer to attached pages.

Authorized By:
On Behalf Of Intertek Testing Services
Taiwan Limited

K. Y. Liang
Director

Intertek Testing Services Taiwan Ltd.
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Number : TWNC00216856

Test Conducted

(Ⅰ) Test Result Summary :

Test Item	Result (ppm)
	Coppery Metal
Heavy Metal	
Cadmium (Cd) content	ND
Lead (Pb) content	46
Mercury (Hg) content	ND
Chromium VI (Cr^{6+}) content (mg/kg with $50cm^2$)	Negative(< 0.02)(#)

Remarks: ppm = Parts per million based on weight of tested sample = mg/kg
ND = Not detected
< = Less than
mg/kg with $50cm^2$ = milligram per kilogram with 50 square centimetre
Negative = A negative test result indicated positive observation was not found at the time of Test.
# = Due to the insufficient sample area, reduced total sample surface of 10 cm^2 was used and the dilution factor was adjusted accordingly.

Responsibility of Chemist : Irene Chiou / Kevin Liu / Cathy Chen

Date Sample Received : Jul 19, 2011
Test Period : Jul 20, 2011 To Jul 25, 2011

(Ⅱ) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr^{6+}) Content	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

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Number : TWNC00216856

Test Conducted

(Ⅲ) Test Method:

Test Item	Test Method	Reporting Limit
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr^{6+}) content	With reference to IEC 62321 edition 1.0:2008 in annex B, by boiling water extraction and determined by UV-Vis spectrophotometer.	0.02 mg/kg with $50cm^2$

Remark: Reporting limit = Quantitation limit of analyte in sample

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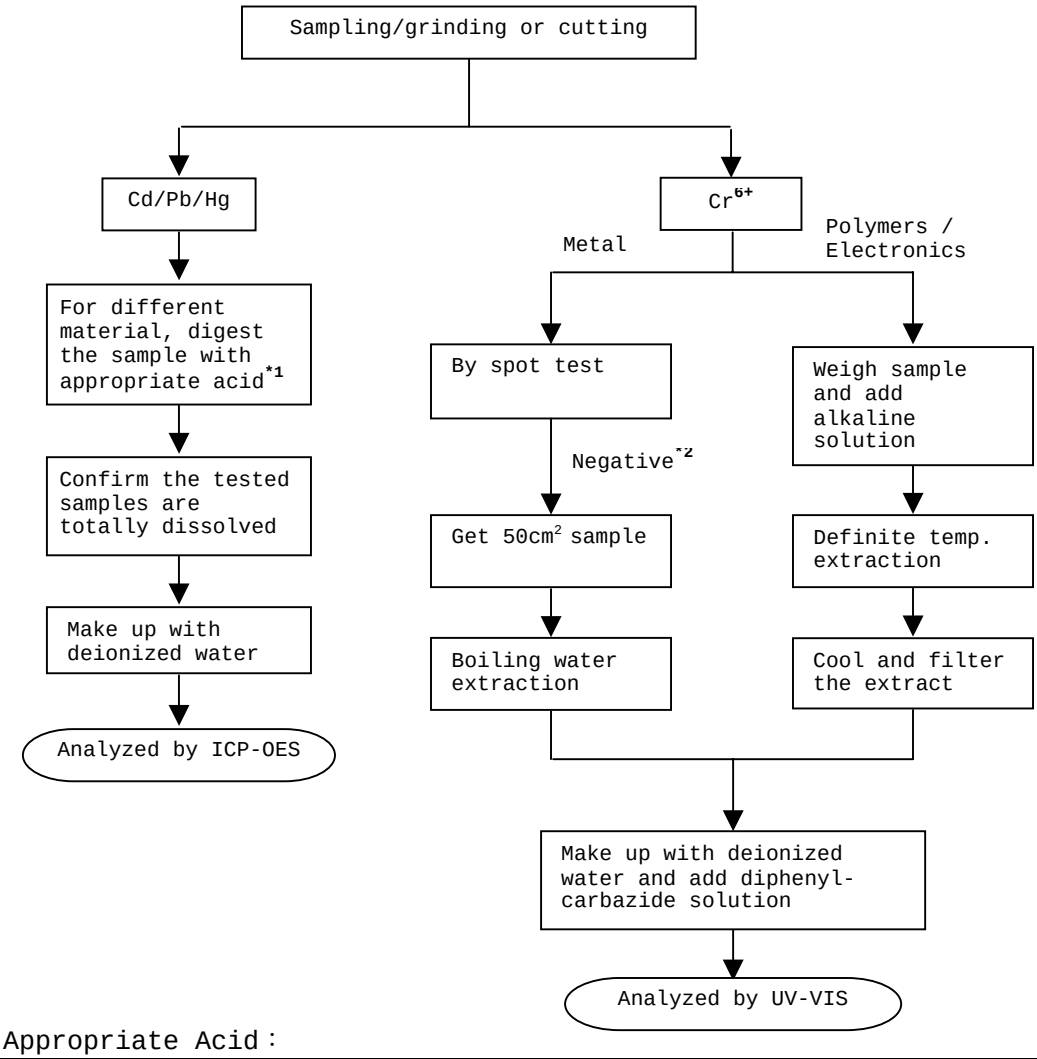
Number : TWNC00216856

Test Conducted

(Ⅳ) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)
Reference Standard：IEC 62321 edition 1.0:2008



Remarks:
*1: List Of Appropriate Acid：

Material	Acid Added For Digestion
Polymers	HNO_3, HCl, HF, H_2O_2, H_3BO_3
Metals	HNO_3, HCl, HF
Electronics	HNO_3, HCl, H_2O_2, HBF_4

*2: If the result of spot test is positive, Chromium VI would be determined as detected.

End of Report

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Number : TWNC00216856

Test Conducted

Photo

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Test Report Number : TWNC00216854

Applicant: Littelfuse Inc. Date : Jul 27, 2011
LIMA Technology Center, Lipa City,
Malvar, Batangas.

Sample Description:
One (1) group of submitted samples said to be :
Part Description : Steel
Date Sample Received : Jul 19, 2011
Date Test Started : Jul 19, 2011

Test Conducted :
As requested by the applicant, for details please refer to attached pages.

Authorized By:
On Behalf Of Intertek Testing Services
Taiwan Limited

K. Y. Liang
Director

Intertek Testing Services Taiwan Ltd.
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Number : TWNC00216854

Test Conducted

(Ⅰ) Test Result Summary :

Test Item	Result (ppm)	
	(1)	(2)
Heavy Metal		
Cadmium (Cd) content	ND	ND
Lead (Pb) content	ND	ND
Mercury (Hg) content	ND	ND
Chromium VI (Cr^{6+}) content (mg/kg with $50cm^2$)	Negative (< 0.02)	Negative (< 0.02)

Remarks: ppm = Parts per million based on weight of tested sample = mg/kg
ND = Not detected
< = Less than
mg/kg with $50cm^2$ = milligram per kilogram with 50 square centimetre
Negative = A negative test result indicated positive observation was not found at the time of Test.
# = Due to the insufficient sample area, reduced total sample surface of 10 cm^2 was used and the dilution factor was adjusted accordingly.

Tested Components
(1) Black Plating Layer
(2) Silvery Metal Base Material

Responsibility of Chemist : Irene Chiou / Kevin Liu / Cathy Chen

Date Sample Received : Jul 19, 2011
Test Period : Jul 19, 2011 To Jul 27, 2011

(Ⅱ) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr^{6+}) Content	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

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Number : TWNC00216854

Test Conducted

(Ⅲ) Test Method:

Test Item	Test Method	Reporting Limit
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr^{6+}) content	With reference to IEC 62321 edition 1.0:2008 in annex B, by boiling water extraction and determined by UV-Vis spectrophotometer.	0.02 mg/kg with $50cm^2$

Remark: Reporting limit = Quantitation limit of analyte in sample

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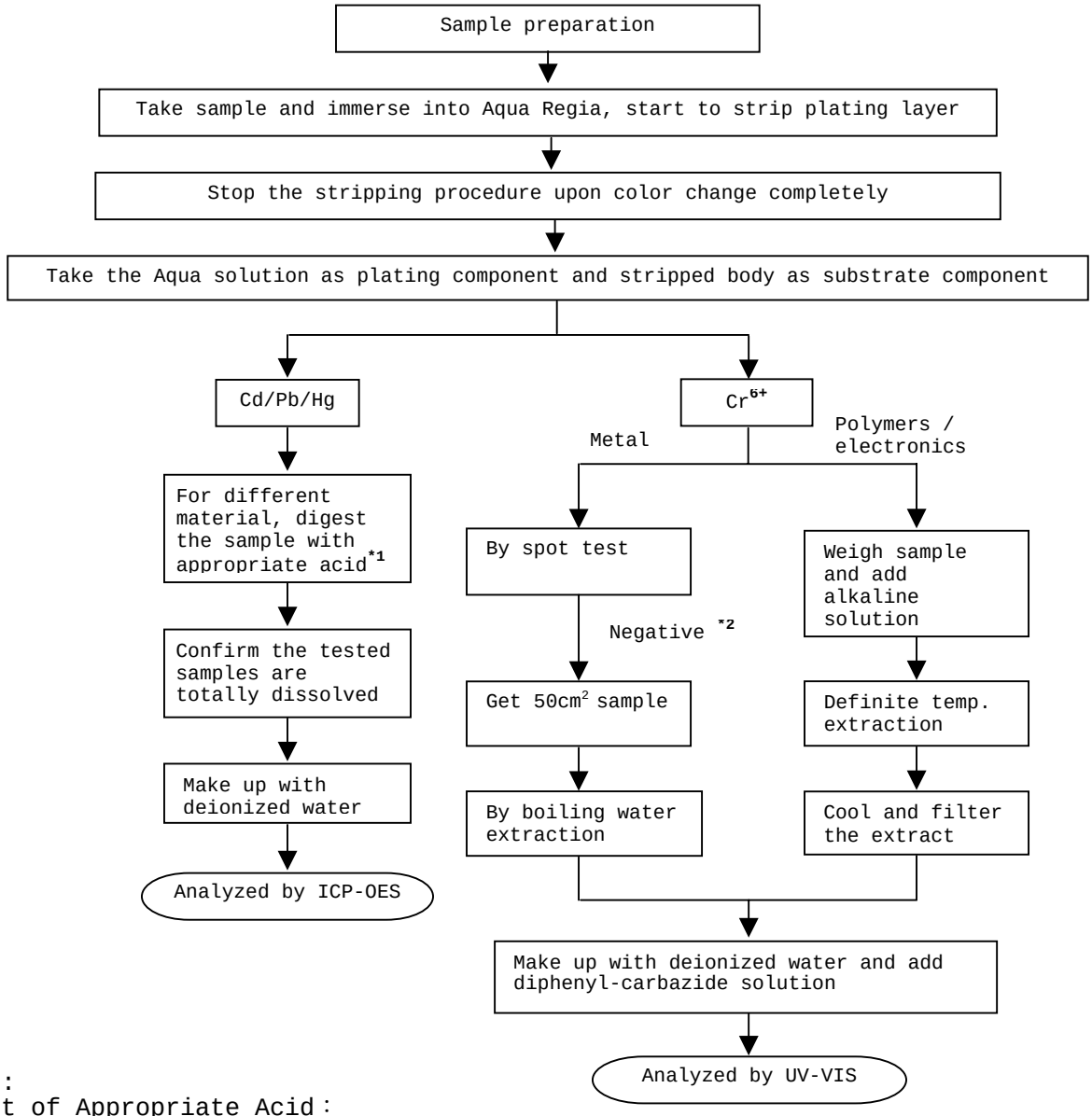
Number : TWNC00216854

Test Conducted

(Ⅳ) Measurement Flowchart:

Test for Cd/Pb/Hg/Chromium (VI)

Reference Standard：IEC 62321 edition 1.0:2008



Remarks:

*1: List of Appropriate Acid：

Material	Acid Added for Digestion
Polymers	HNO_3, HCl, HF, H_2O_2, H_3BO_3
Metals	HNO_3, HCl, HF
Electronics	HNO_3, HCl, H_2O_2, HBF_4

*2: If the result of spot test is positive, Chromium VI would be determined as detected.

End of Report

Intertek Testing Services Taiwan Ltd.
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Number : TWNC00216854

Test Conducted

Photo

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Test Report

Applicant :FOSHAN MEGA INK AND COATING CO., LTD.
Address :GENGHE ROAD, GENGHE TOWN, GAOMING DISTRICT, FOSHAN CITY, GUANGDONG PROVINCE, CHINA

Report on the submitted sample(s) said to be:

Sample Name :丝网油墨混合物
Sample Description : liquid
Sample Received Date :Mar.15, 2011
Testing Period :Mar.15, 2011 to Mar.15, 2011

Test Requested :As specified by client, to determine the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(Ⅵ)), Polybrominated biphenyl(PBBs) and Polybrominateddiphenylether(PBDEs) contents in the submitted sample.

Test Method:

Tested Item(s)	Test Method	Measured Equipment(s)	MDL
Lead (Pb)	IEC 62321:2008 Ed.1 Sec.10	ICP-OES	2 mg/kg
Cadmium (Cd)	IEC 62321:2008 Ed.1 Sec.10	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321:2008 Ed.1 Sec.7	ICP-OES	2 mg/kg
Hexavalent Chromium (Cr(Ⅵ))	IEC 62321:2008 Ed.1 Annex C	UV-Vis	2 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg

Test Result(s) **:Please refer to the following page(s)**

Tested by Zhang Jianbao Inspected by Wang Wenjun

Approved by ___ Technical Manager Date Mar.15, 2011

No.34238287

Test Report

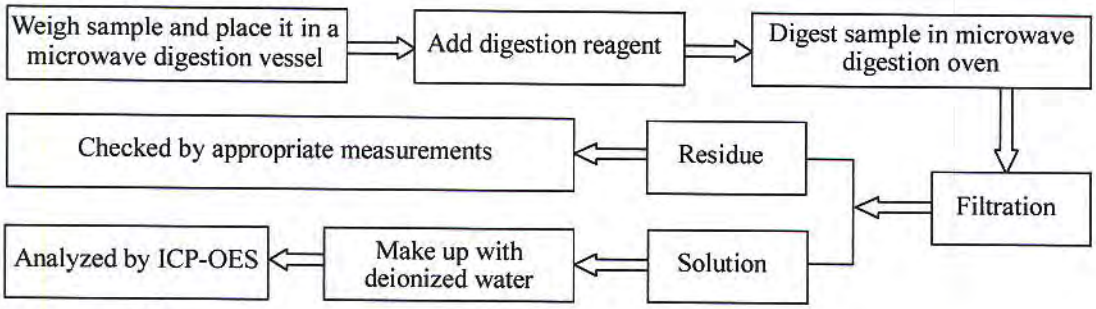
Test Result(s):

Tested Item(s)	Content
Lead (Pb)	N.D.
Cadmium (Cd)	N.D.
Mercury (Hg)	N.D.
Hexavalent Chromium (Cr(VI))	N.D.
Polybrominated Biphenyls(PBBs)	
Monobromobiphenyl	N.D.
Dibromobiphenyl	N.D.
Tribromobiphenyl	N.D.
Tetrabromobiphenyl	N.D.
Pentabromobiphenyl	N.D.
Hexabromobiphenyl	N.D.
Heptabromobiphenyl	N.D.
Octabromobiphenyl	N.D.
Nonabromobiphenyl	N.D.
Decabromobiphenyl	N.D.
Polybrominated Diphenyl Ethers(PBDEs)	
Monobromodiphenyl ether	N.D.
Dibromodiphenyl ether	N.D.
Tribromodiphenyl ether	N.D.
Tetrabromodiphenyl ether	N.D.
Pentabromodiphenyl ether	N.D.
Hexabromodiphenyl ether	N.D.
Heptabromodiphenyl ether	N.D.
Octabromodiphenyl ether	N.D.
Nonabromodiphenyl ether	N.D.
Decabromodiphenyl ether	N.D.

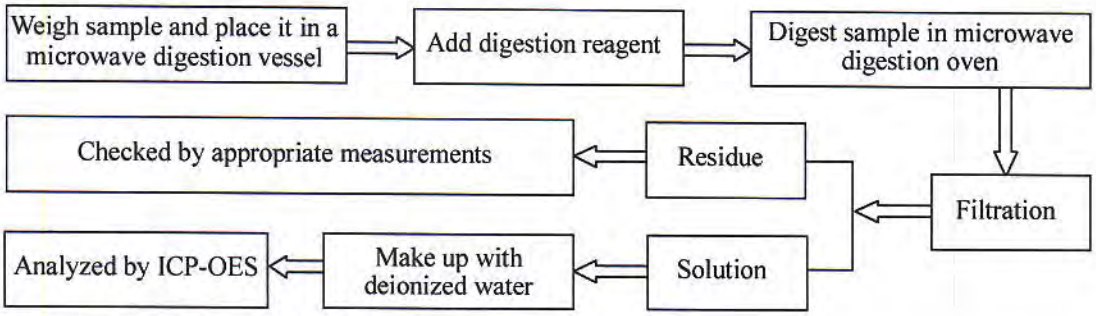
Note: -MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million

Test Process:

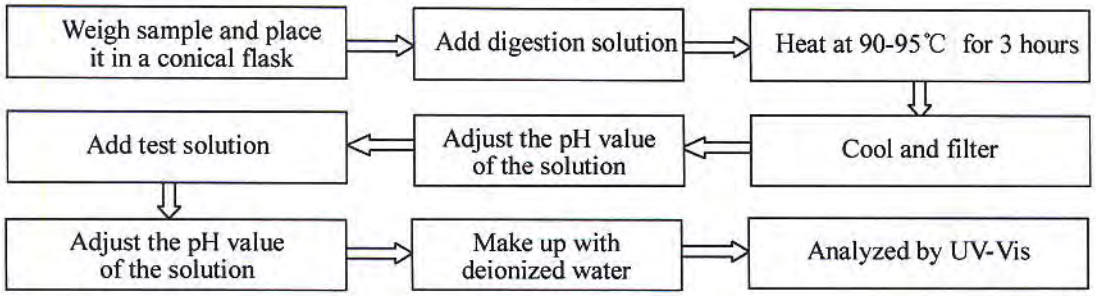
1.Lead(Pb),Cadmium(Cd)



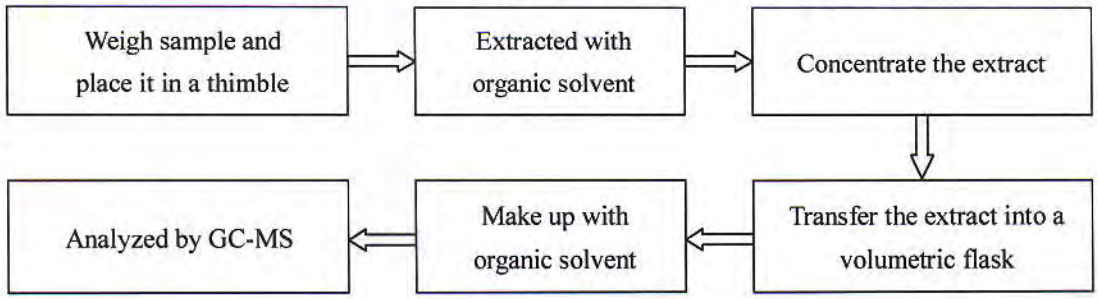
2.Mercury(Hg)



3. Hexavalent Chromium(Cr(VI))



4. Polybrominated biphenyl(PBBs) and Polybrominateddiphenylether(PBDEs)



Test Report

Photo(s) of the sample(s)

Test Report

Attached page:

ROHS 其他颜色：

10 系列：W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 186; T2257; T2255; T2256; T2306; T 6742; T 7148; T 7147; T 7149; T 7317;K100-B;

11 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195； T2369

12 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

14 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

21 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

22 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;C191

25 系列：W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; T 5682; K500;

26 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

27 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

28*系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195； W100-B-3; K100-B-3; T9771;

29 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

31（PCT）系列：W100; W100-3; R100; M100; Q100; B100; B500;G100; G100-B; V100;V100-B;K100; K500; K555; 195; 777; 895； T8877; T8878; T8879; T8880; T8886; T8390; T8391; T8395;T2369; T9486;T9835;T8797;T8798; T2168（德怡）； T2141（德怡）

32 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

38 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

43 系列：W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; T2791; T2985; T5885； T6124； T7380;

46 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

47 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

48 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195； C191

49 系列：W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; C191; T8872; T9220;

51 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

54 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195； C191

56 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

57 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

59 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

66 系列： W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195;

8116 系列： P35; P42; P50; P52; P53; P57; P59; P63; P75; P83; P83-3; P195; P198;T3189;

7118 系列： P35; P42; P50; P52; P53; P57; P59; P63; P75; P83; P83-3; P195; P198;

Test Report

80 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; 1098;

70 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; 1098;

SS10 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; 1098;

SS20 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; 1098;

SS70 系列：141；112；057；003；791；385；037；391；083；113；911；611；810；

SS80 系列：141；112；057；003；791；385；037；391；083；113；911；611；810；

EG 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

EM 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

EA 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

EB 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

NY 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;1091;

NYG 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PS 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PSG 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PE 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PEG 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;1091

PP 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PPG 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PPE 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PET*系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

PCT 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

MT 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;1091

MTS 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

GS 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; GS-000;

Test Report

GV 系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;1091

ACT 贴花系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; ACT-700; ACT-777;

VK7 贴花系列：1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095;

UV 油墨：R800; Q800; V800; B800; G800; K800; W800; UV-TC;

SSPPNK 系列：611; 003; 057; 112; 113; 037; 391; 385; 791; 083; 911; 611S; SSPPNK-00; T3974； T5250；

SS16 系列：611; 003; 057; 112; 113; 037; 391; 385; 791; 083; 911; 611S; SS16-000;

911 系列：911-B100; 911-W100; 911-K100; 911-V100; 911-E100; 911-G100; 911-R100; 911-Q100; 911-M100; 911-W100(恒晖); 911-K100(恒晖); 快干 2000#(恒晖); 911-V100(恒晖); 911-B100(恒晖); 911-R100(恒晖); 911-E100(恒晖); 911-G100(恒晖);

其他：99-956B; 395; 300Y; 300B; 300R; 300K; 300P; 300M; M901; M902; M903; M905; M906; T710;T720; T730; T740; T750; T760; T770; T780; F840; F850; F860; F870; F880; SS777; TUVC;

助剂及溶剂： PPS-01; S907; S909; 2000#; 2200#; 2600#;3000#；3000#（万家乐）；840#；721#； 7000#; 7200#; 7600#; 5000#; 5500#; 8000#; 888#; 777#;783#; GP1006;GP1007;GP1008; 783#; S407#; S408#;719#; 718#; S408#; S482#; 842#；3000#；861#； 862#；UR-100B;GRU-200B;

*** End of report ***

CTI 华测检测
CENTRE TESTING INTERNATIONAL

Test Report

Report No. RLNBD000044550001

Applicant WENZHOU JANDA ELECTRONIC CO.,LTD
Address NO2,WANGLIN INDUSTRY ZONE,BEIBAIXIANG TOWN,YUEQING CITY. ZHEJIANG PROVINCE,CHINA.325603

Report on the submitted sample(s) said to be

Sample Name	Ink
Sample Description	White ink
Part No.	PEG 1083
Color	white
Sample Received Date	Aug. 22, 2011
Testing Period	Aug. 22, 2011 to Aug. 25, 2011

Test Requested As specified by client, to determine the Fluorine(F), Chlorine(Cl), Bromine(Br), Iodine(I) content in the submitted sample.

Test Method

Test Item(s)	Test Method	Measured Equipment(s)	MDL
Fluorine(F)	Refer to BS EN 14582:2007	IC	10 mg/kg
Chlorine(Cl)	Refer to BS EN 14582:2007	IC	10 mg/kg
Bromine(Br)	Refer to BS EN 14582:2007	IC	10 mg/kg
Iodine(I)	Refer to BS EN 14582:2007	IC	10 mg/kg

Test Result(s) Please refer to the following page(s).

Tested by _____

Approved by _____
Technical Manager

Inspected by _____

Date Aug. 25, 2011

No. 13431882

Test Report

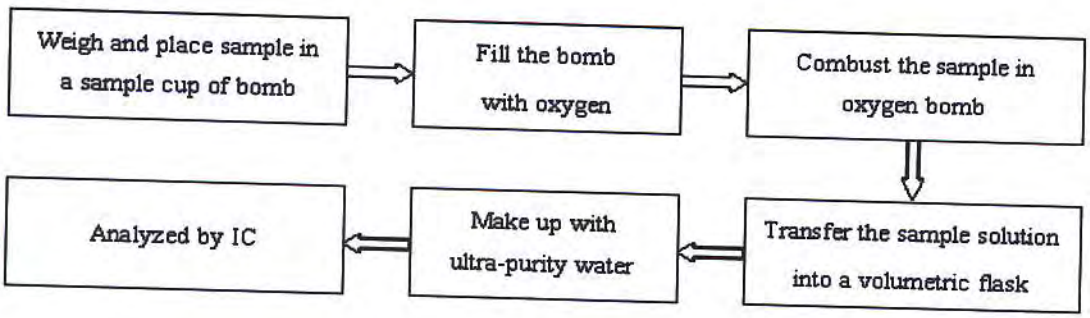
Report No. RLNBD000044550001

Test Result(s)

Tested Item(s)	Content
Halogen(s)	
Fluorine (F)	N.D.
Chlorine(Cl)	204 mg/kg
Bromine(Br)	N.D.
Iodine(I)	N.D.

Note: -MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million

Test Process



Test Report

Report No. RLNBD000044550001

Photo(s) of the sample(s)

*** End of report ***

Test Report Number : TWNC00216855

Applicant: Littelfuse Inc. Date : Jul 25, 2011
LIMA Technology Center, Lipa City,
Malvar, Batangas

Sample Description:
One (1) group of submitted samples said to be :
Part Description : 304 Steel
Date Sample Received : Jul 19, 2011
Date Test Started : Jul 20, 2011

Test Conducted :
As requested by the applicant, for details please refer to attached pages.

Authorized By:
On Behalf Of Intertek Testing Services
Taiwan Limited

K. Y. Liang
Director

Intertek Testing Services Taiwan Ltd.
8F., No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan, R.O.C.
全國公證檢驗股份有限公司
114 台北市內湖區瑞光路 423 號 8 樓
Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401

Number : TWNC00216855

Test Conducted

(Ⅰ) Test Result Summary :

Test Item	Result (ppm)
	Silvery Metal
Heavy Metal	
Cadmium (Cd) content	ND
Lead (Pb) content	ND
Mercury (Hg) content	ND
Chromium VI (Cr^{6+}) content (mg/kg with $50cm^2$)	Negative(< 0.02)(#)

Remarks: ppm = Parts per million based on weight of tested sample = mg/kg
ND = Not detected
< = Less than
mg/kg with $50cm^2$ = milligram per kilogram with 50 square centimetre
Negative = A negative test result indicated positive observation was not found at the time of Test.
# = Due to the insufficient sample area, reduced total sample surface of 10 cm^2 was used and the dilution factor was adjusted accordingly.

Responsibility of Chemist : Irene Chiou / Kevin Liu / Cathy Chen

Date Sample Received : Jul 19, 2011
Test Period : Jul 20, 2011 To Jul 25, 2011

(Ⅱ) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd) Content	0.01% (100ppm)
Lead (Pb) Content	0.1% (1000ppm)
Mercury (Hg) Content	0.1% (1000ppm)
Chromium VI (Cr^{6+}) Content	0.1% (1000ppm)

The above limits were quoted from 2002/95/EC and amendment 2005/618/EC for homogeneous material.

Intertek Testing Services Taiwan Ltd.
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全國公證檢驗股份有限公司
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Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401

Number : TWNC00216855

Test Conducted

(Ⅲ) Test Method:

Test Item	Test Method	Reporting Limit
Cadmium (Cd) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Lead (Pb) content	With reference to IEC 62321 edition 1.0:2008 in clause 8/9/10, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Mercury (Hg) content	With reference to IEC 62321 edition 1.0:2008 in clause 7, by microwave digestion until the tested samples are totally dissolved and determined by ICP-OES.	2 ppm
Chromium VI (Cr^{6+}) content	With reference to IEC 62321 edition 1.0:2008 in annex B, by boiling water extraction and determined by UV-Vis spectrophotometer.	0.02 mg/kg with $50cm^2$

Remark: Reporting limit = Quantitation limit of analyte in sample

Intertek Testing Services Taiwan Ltd.
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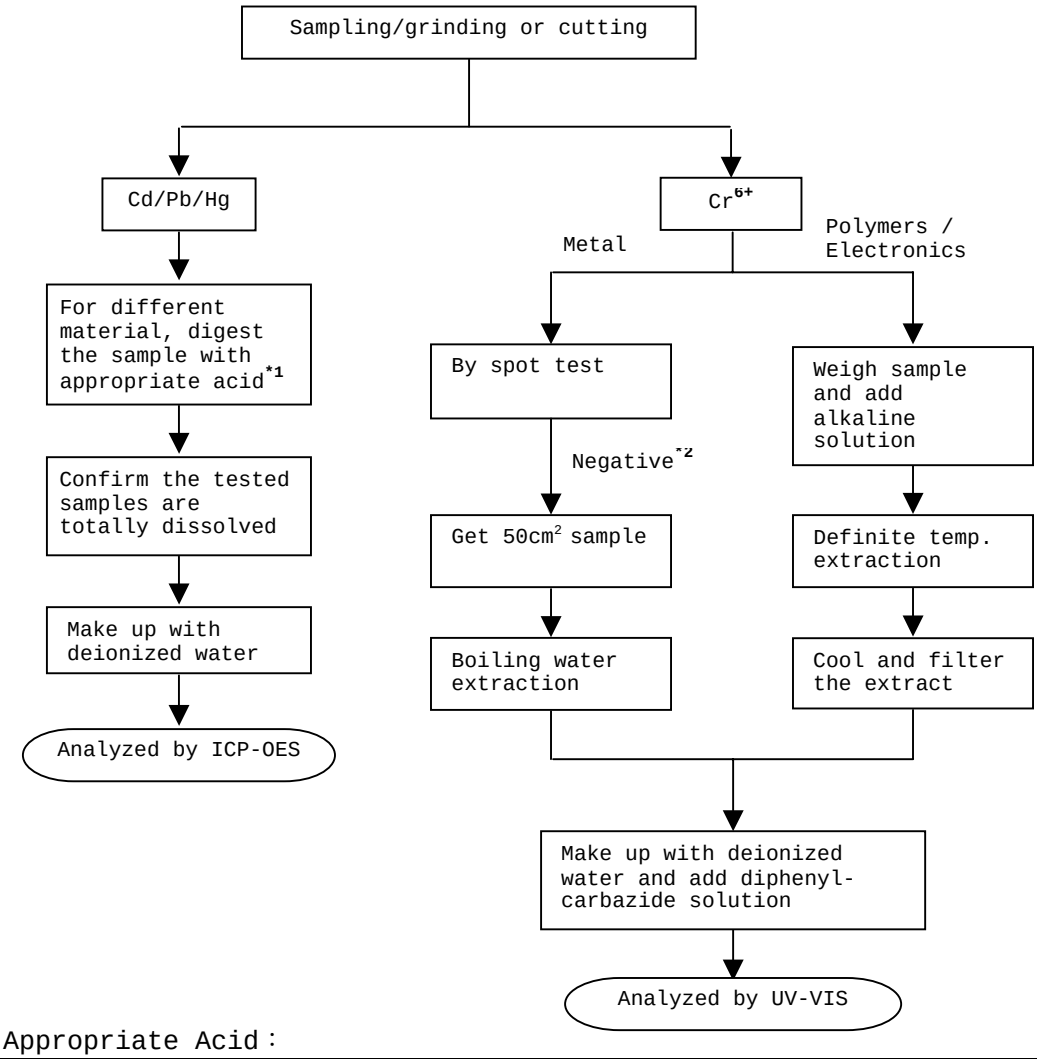
Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401

Number : TWNC00216855

Test Conducted

(Ⅳ) Measurement Flowchart:

Test For Cd/Pb/Hg/Chromium (VI)
Reference Standard：IEC 62321 edition 1.0:2008



Remarks:
*1: List Of Appropriate Acid：

Material	Acid Added For Digestion
Polymers	HNO_3, HCl, HF, H_2O_2, H_3BO_3
Metals	HNO_3, HCl, HF
Electronics	HNO_3, HCl, H_2O_2, HBF_4

*2: If the result of spot test is positive, Chromium VI would be determined as detected.

End of Report

Intertek Testing Services Taiwan Ltd.
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Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401

Number : TWNC00216855

Test Conducted

Photo

Intertek Testing Services Taiwan Ltd.
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全國公證檢驗股份有限公司
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测试报告

No. SHAEC1103841401　　日期: 2011年03月31日　　第1页,共4页

乐清市精饰电镀厂
浙江省乐清市北白象镇象塔南路42号

以下测试之样品是由申请者所提供及确认：镀锡层

SGS工作编号：	SP11-008489 - SH
型号：	配件
样品接收日期：	2011年03月28日
测试周期：	2011年03月28日 - 2011年03月31日
测试要求：	根据客户要求测试
测试方法：	请参见下一页
测试结果：	请参见下一页
结论：	基于所送样品进行的测试，测试结果与欧盟RoHS指令2002/95/EC以及后续修正指令的要求相符

通标标准技术服务有限公司
授权签名

Fan Jingjie, JJ范晶捷
批准签署人

3/F,Building,No.889 Yishan Road Xuhui District,Shanghai China 200233　t E&E (86-21) 61402553　f E&E (86-21)64953679　www.cn.sgs.com
中国·上海·徐汇区宜山路889号3号楼　邮编: 200233　HL: (86-21) 61402594　HL: (86-21)54500353　e sgs.china@sgs.com

测试结果：

样品部件外观描述：

样品编号	SGS样品ID	描述
1	SHA11-038414.001	银色金属

备注：

(1) 1 mg/kg = 1 ppm = 0.0001%
(2) MDL = 检测极限值
(3) ND = 未检出 (< MDL)
(4) "-" = 未规定

RoHS指令2002/95/EC

测试方法： 参照IEC 62321:2008:
(1) 用ICP-OES测定镉的含量.
(2) 用ICP-OES测定铅的含量.
(3) 用ICP-OES测定汞的含量.
(4) 用点测试法/紫外-可见分光光度计比色法测定六价铬的含量.

测试项目

	限值	单位	MDL	001
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(CrVI)	-	-	◇	Negative

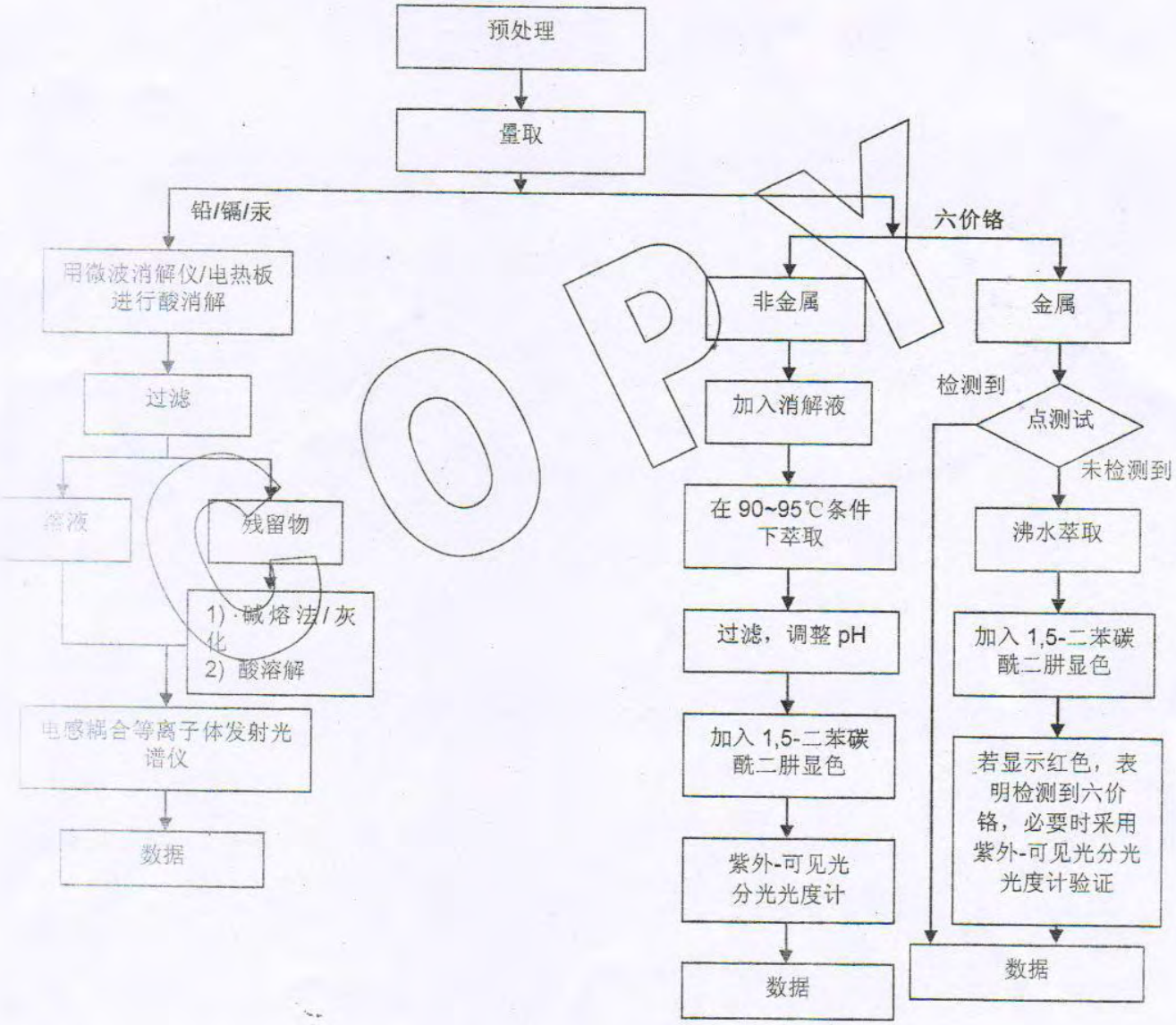
备注：

(1) 最大允许极限值引用自2002/95/EC RoHS指令和后继修正指令2005/618/EC.
(2) ◇ 点测试法:
Negative= 镀层中未检测到六价铬, Positive = 镀层中检测到六价铬;
(当点测试结果为Negative或无法确定时,将采用沸水萃取法作进一步的结果验证.)
◇ 沸水萃取法:
Negative = 镀层中未检测到六价铬
Positive = 镀层中检测到六价铬; 表明50 cm²表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于0.02 mg/kg.
针对金属表面的防腐涂层:由于未获知样品的存储条件和生产日期,样品的六价铬测试结果仅代表测试时样品的状态.

附件

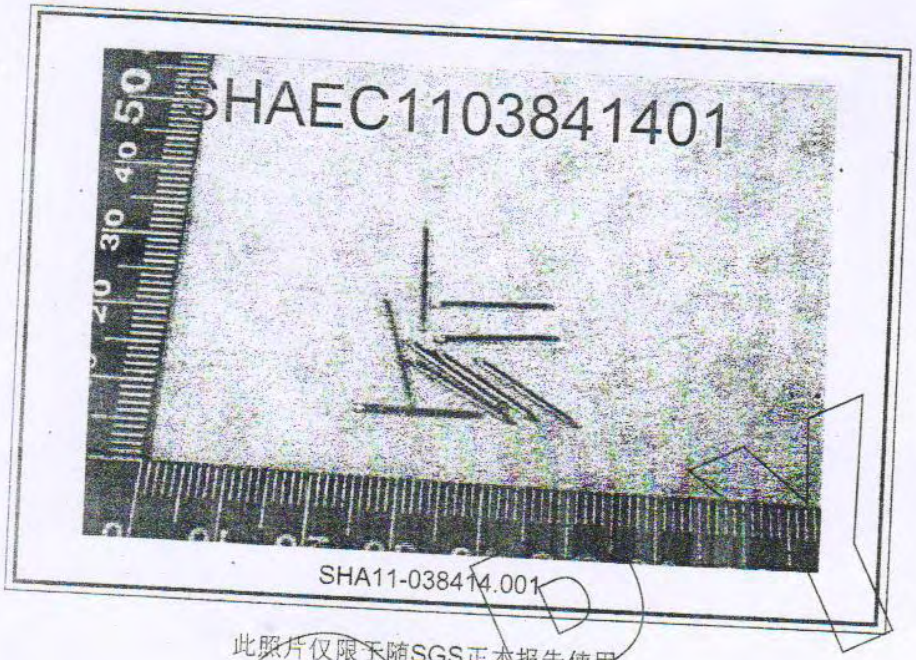
RoHS 测试流程图

1) 分析人员：肖飞/徐双/赵旭东
2) 项目负责人：张春华/徐亮
3) 样品按照下述流程被完全消解（六价铬测试除外）



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
3rd Building, No.889 Yishan Road Xuhui District, Shanghai China 200233
中国·上海·徐汇区宜山路889号3号楼 邮编: 200233
t E&E (86-21) 61402553 f E&E (86-21)64953679 www.cn.sgs.com
HL: (86-21) 61402594 HL: (86-21)54500353 e sgs.china@sgs.com
Member of the SGS Group (SGS SA)

样品照片:



此照片仅限于随SGS正本报告使用

*** 报告完 ***

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SHCM 4209663

测试报告

No. SHAEC1102902201　　日期: 2011年03月18日　　第1页,共4页

乐清市精饰电镀厂

浙江省乐清市北白象镇象塔南路42号

以下测试之样品是由申请者所提供及确认：镀锌层

SGS工作编号：	SP11-006643 - SH
型号：	配件
样品接收日期：	2011年03月14日
测试周期：	2011年03月14日 - 2011年03月18日
测试要求：	根据客户要求测试
测试方法：	请参见下一页
测试结果：	请参见下一页
结论：	基于所送样品进行的测试, 测试结果与欧盟RoHS指令2002/95/EC以及后续修正指令的要求相符

通标标准技术服务有限公司
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测试结果:

样品部件外观描述:

样品编号	SGS样品ID	描述
1	SHA11-029022.001	银蓝色金属

备注:

(1) 1 mg/kg = 1 ppm = 0.0001%
(2) MDL = 检测极限值
(3) ND = 未检出 (< MDL)
(4) "-" = 未规定

RoHS指令2002/95/EC

测试方法: 参照IEC 62321:2008:
(1) 用ICP-OES测定镉的含量.
(2) 用ICP-OES测定铅的含量.
(3) 用ICP-OES测定汞的含量.
(4) 用点测试法/紫外-可见分光光度计比色法测定六价铬的含量.

测试项目	限值	单位	MDL	001
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(CrVI)	-	-	◇	Negative

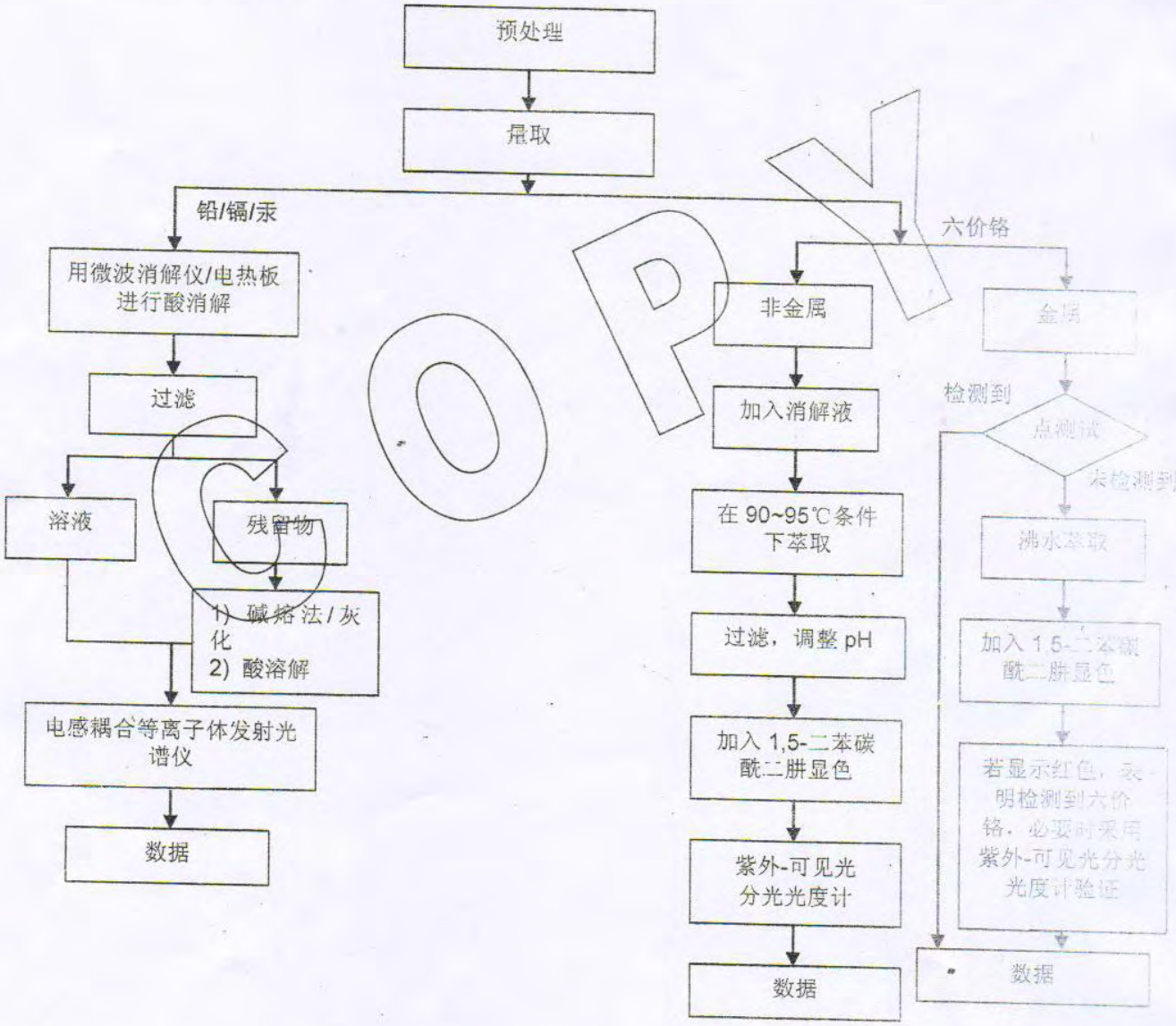
备注:

(1) 最大允许极限值引用自2002/95/EC RoHS指令和后继修正指令2005/618/EC.
(2) ◇ 点测试法:
Negative= 镀层中未检测到六价铬, Positive = 镀层中检测到六价铬;
(当点测试结果为Negative或无法确定时,将采用沸水萃取法作进一步的结果验证.)
◇ 沸水萃取法:
Negative = 镀层中未检测到六价铬
Positive = 镀层中检测到六价铬; 表明50 cm²表面积的被测试样品的沸水萃取液中六价铬的浓度等于或大于0.02 mg/kg.
针对金属表面的防腐涂层:由于未获知样品的存储条件和生产日期,样品的六价铬测试结果仅代表测试时样品的状态.

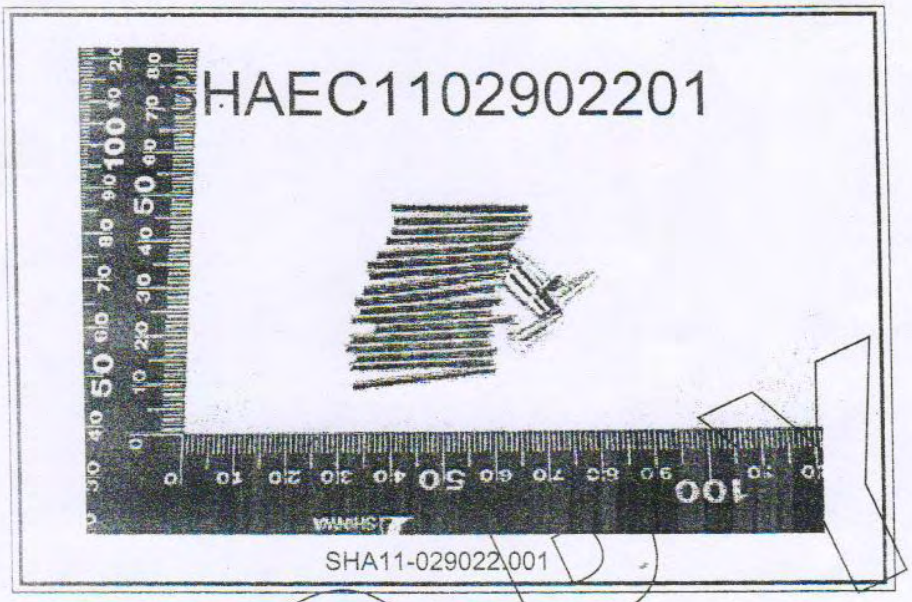
附件

RoHS 测试流程图

1) 分析人员：肖飞/徐双/赵旭东
2) 项目负责人：张春华/徐亮
3) 样品按照下述流程被完全消解（六价铬测试除外）



样品照片:



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*** 报告完 ***