



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: July 12, 2013

It is hereby certified by Littelfuse, Inc. that there is neither RoHS (EU Directive 2011/65/EU, recasting 2002/95/EC)-restricted substance nor such use, for materials to be used for unit parts, for packing/package 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/package materials, and the additives and the like in the manufacturing processes, are all composed of the following components.

Issued by:


JENNY DINGLASAN

<Global EHS Specialist >

(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 identified 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)	3-11
2	882-649	Rejection Member (PBT Valox) (same with 868-069)	3-11
3	100060	Fuse Clip (Cu Alloy)	12-16
4	100069	Fuse Clip (Cu Alloy)	12-16
5	902-122	Self Tapping Phillips screw (Steel)	17-20
6	902-119	Type B Self Tapping Screw (Steel)	17-20
7	903-117	Square Nut (Steel)	17-20
8	902-139	Binding Head Screw (Steel)	17-20
9	902-140	Pressure Plate Screw (Steel)	17-20
10	929-023	Guide Spring (304 Steel)	21-24
11	N/A	Tin Plating of Cu Alloy	25-28
12	N/A	Zinc Plating of 304 Steel	29-32
13	N/A	Printing Ink	33-41

Test Report

Number : TWNC00268062

Applicant: Littelfuse Philippines Inc.
LIMA Technology Center, Lipa City,
Malvar, Batangas

Date : Jul 27, 2012

Sample Description:

One (1) group of submitted samples said to be :

Part Description : PBT Valox

Date Sample Received : Jul 20, 2012

Date Test Started : Jul 21, 2012

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

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except in full, without the written
approval of the laboratory.

Number : TWNC00268062

Test Conducted

(I) Test Result Summary :

Test Item	Result (ppm)
	Black Plastic
Heavy Metal	
Cadmium (Cd) content	ND
Lead (Pb) content	22
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)	133
Chlorine (Cl)	ND
Bromine (Br)	34674
Iodine (I)	ND
Phthalates	
Di(2-ethylhexyl) Phthalate (DEHP)	ND
Dibutyl Phthalate (DBP)	ND
Benzyl Butyl Phthalate (BBP)	ND

Number : TWNC00268062

Test Conducted

(I) Test Result Summary :

<u>Test Item</u>	<u>Result (ppm)</u>
	<u>Black Plastic</u>
Others	
Hexabromocyclododecane (HBCDD)	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 20, 2012

Test Period : Jul 21, 2012 To Jul 27, 2012

(II) RoHS Limits:

<u>Restricted Substances</u>	<u>Limits</u>
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 Annex II of 2011/65/EU for homogeneous material.

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 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-MS and further HPLC-DAD 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-MS and further HPLC-DAD confirmation when necessary.	5 ppm
Halogen Content	With reference to EN 14582:2007 by calorimetric bomb with oxygen and determined by Ion Chromatograph.	50 ppm
Phthalates	With reference to EN 14372: 2004, by solvent extraction and determined by GC-MS.	50 ppm
Hexabromocyclododecane (HBCDD)	With reference to USEPA 3540C, by solvent extraction and determined by GC-MSD.	10 ppm

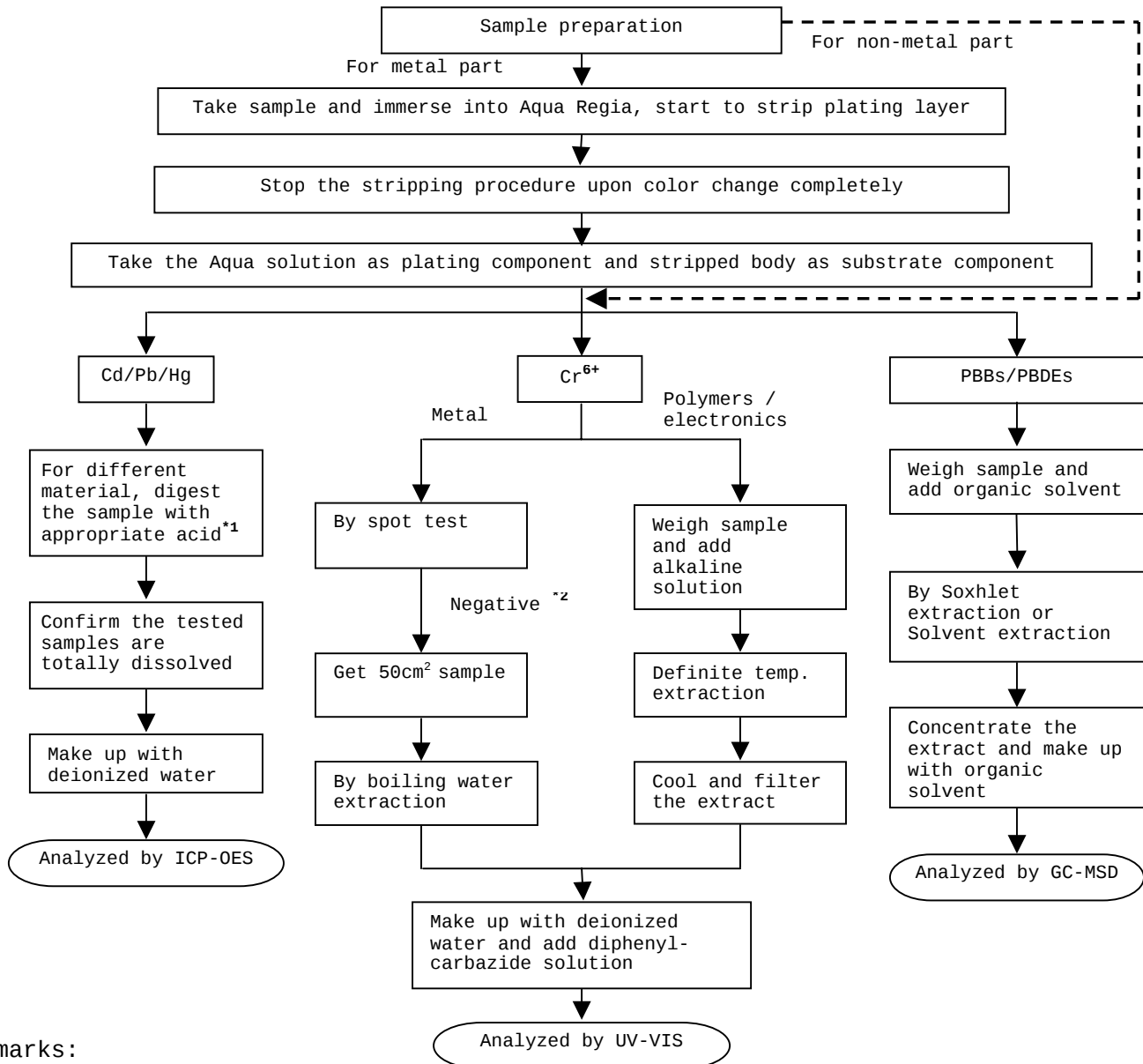
Remark: Reporting limit = Quantitation limit of analyte in sample

Test Conducted

(IV) Measurement Flowchart:

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

Reference Standard: IEC 62321 edition 1.0:2008



Remarks:

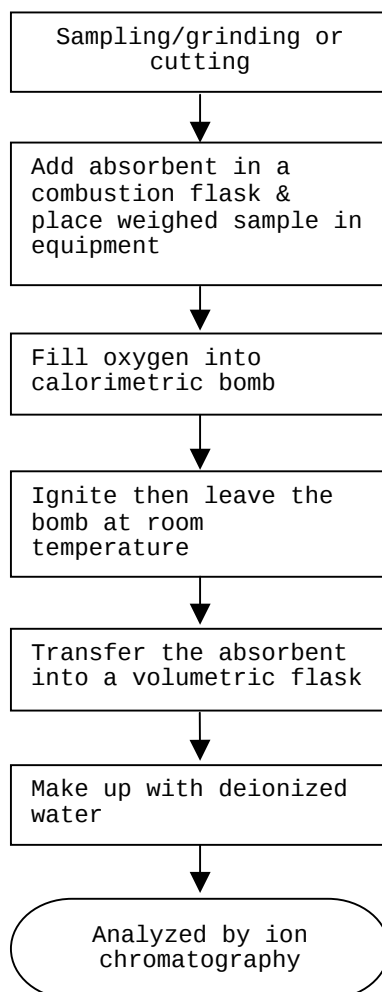
*1: List of Appropriate Acid :

Material	Acid Added for Digestion
Polymers	HNO ₃ , HCl, HF, H ₂ O ₂ , H ₃ BO ₃
Metals	HNO ₃ , HCl, HF
Electronics	HNO ₃ , HCl, H ₂ O ₂ , HBF ₄

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

Test Conducted
(IV) Measurement Flowchart:

Test for Halogen Content
Reference Standard : EN 14582

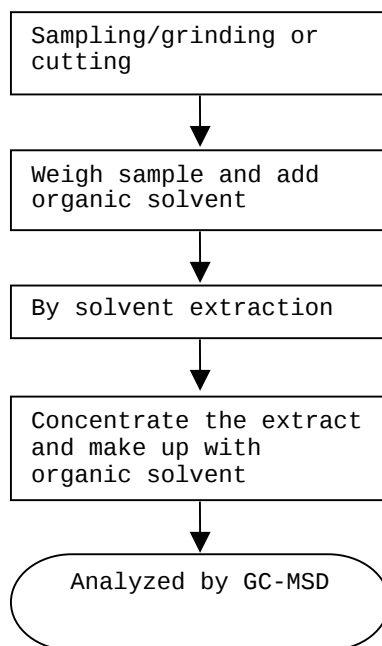


Test Conducted

(IV) Measurement Flowchart:

Test For Phthalates Contents

Reference Method: EN 14372: 2004

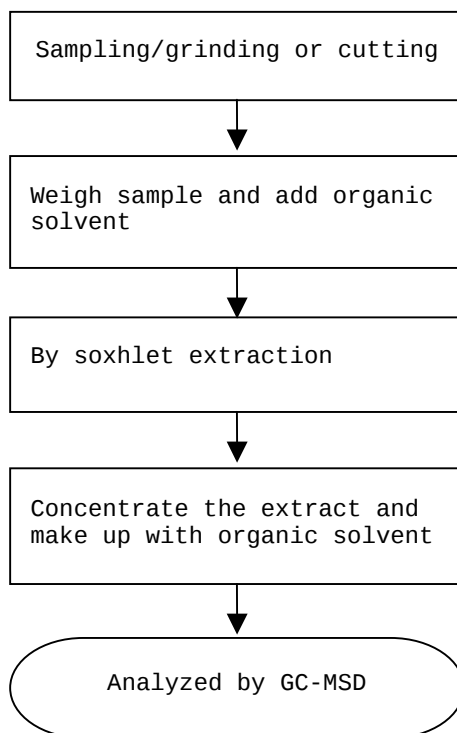


Test Conducted

(IV) Measurement Flowchart:

Test For Hexabromocyclododecane (HBCDD)

Reference Standard : USEPA 3540C



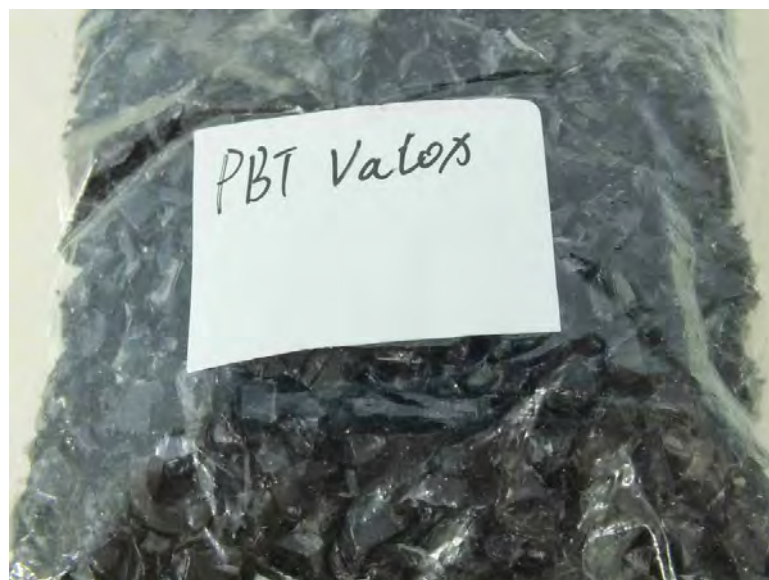
End of Report

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Test Conducted

Number : TWNC00268062

Photo



测试报告

No. SHAEC1223018810

日期: 2013年01月08日 第1页,共5页

宁波兴铜金属材料有限公司/宁波兴业盛泰集团有限公司
浙江省慈溪经济开发区杭州湾新区金溪路2-9号

以下测试之样品是由申请者所提供及确认: 锡磷青铜

SGS工作编号: SP12-037491 - SH
型号: C5191(QSn6.5-0.1)
批号: 12/1-34
样品接收日期: 2012年12月28日
测试周期: 2012年12月28日 - 2013年01月07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, 镉、铅、汞、六价铬的测试结果符合欧盟RoHS指令2002/95/EC的重订指令2011/65/EU附录II的限值要求

通标标准技术服务有限公司
授权签名



JJ Fan 范晶捷
批准签署人

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测试报告

No. SHAEC1223018810

日期: 2013年01月08日 第2页,共5页

测试结果:

测试样品描述:

样品编号	SGS样品ID	描述
1	SHA12-230188.005	铜色金属

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

RoHS指令2011/65/EU

测试方法: 参考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格的含量.

测试项目	限值	单位	MDL	005
镉 (Cd)	100	mg/kg	2	ND
铅(Pb)	1000	mg/kg	2	17
汞 (Hg)	1000	mg/kg	2	ND
六价格(CrVI)	-	-	◇	阴性

备注:

- (1) 最大允许极限值引用自指令2011/65/EU 附录II.
- (2) ◇点测试法:
阴性= 未检测到六价格,阳性 = 检测到六价格;
(当点测试结果为阴性或无法确定时,将采用沸水萃取法作进一步的结果验证.)
◇沸水萃取法:
阴性= 未检测到六价格
阳性= 检测到六价格; 表明50 cm²表面积的被测试样品的沸水萃取液中六价格的浓度等于或大于0.02 mg/kg
由于未获知样品的存储条件和生产日期,样品的六价格测试结果仅能代表测试时样品含六价格的状态.

EN 71 Part3:1994 + A1:2000+ AC:2002—几种元素的转移

测试方法: 参照EN 71 Part 3:1994+ A1:2000 + AC:2002 方法测定, 采用ICP- OES进行分析.

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SGS - Standards Technical Services (Shanghai) Co., Ltd.
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测试报告

No. SHAEC1223018810

日期: 2013年01月08日

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测试项目	限值	单位	MDL	005
可溶性铅 (Pb)	90	mg/kg	5	ND
可溶性锑 (Sb)	60	mg/kg	5	ND
可溶性砷 (As)	25	mg/kg	2.5	ND
可溶性钡 (Ba)	1000	mg/kg	10	ND
可溶性镉 (Cd)	75	mg/kg	5	ND
可溶性铬 (Cr)	60	mg/kg	5	ND
可溶性汞 (Hg)	60	mg/kg	5	ND
可溶性硒 (Se)	500	mg/kg	10	ND

备注:

(1) 结果经分析调整。

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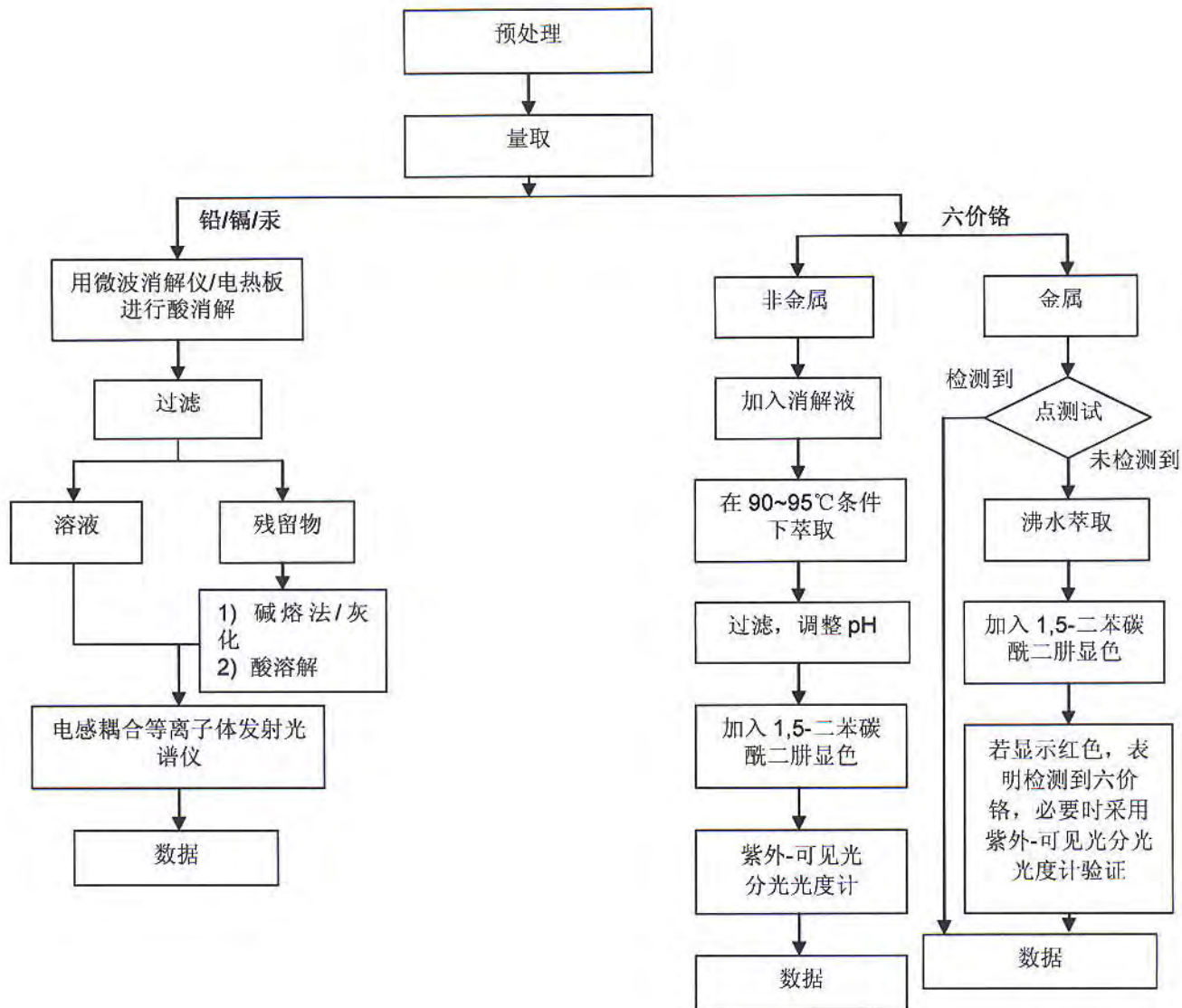
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HL: (86-21) 61402594 HL: (86-21) 54500353 e sgs.china@sgs.com

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附件

RoHS 测试流程图

- 1) 分析人员: 施青/王彦青/肖飞
- 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)



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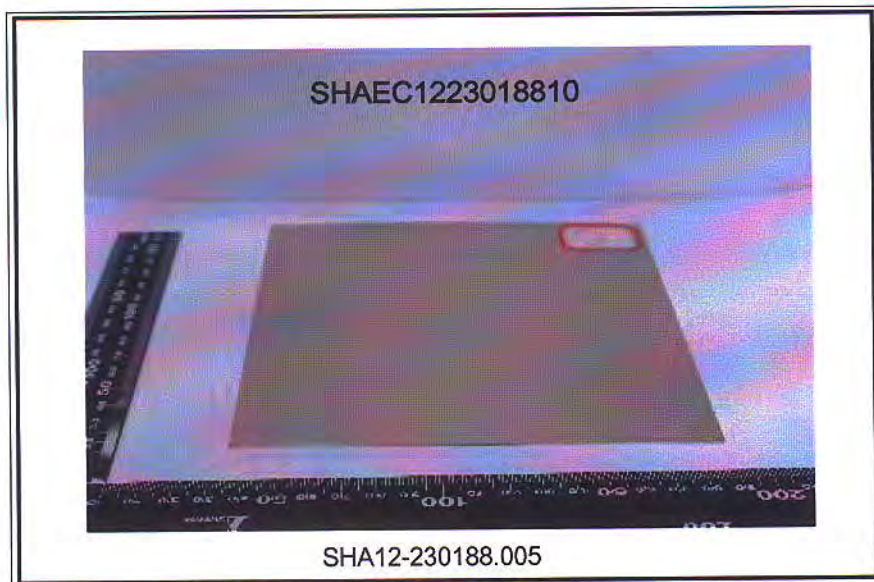
测试报告

No. SHAEC1223018810

日期: 2013年01月08日

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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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Test Report

Report No. RLNBE000088420001

Page 1 of 4

Applicant YUEQING DONGFENG FASTENERS COMPANY

Address NO528,SOUTH STREET,BEIBAIXIANG TOWN,YUEQING CITY, ZHEJIANG PROVINCE,CHINA.

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

Sample Name Steel

Sample Received Date Jul. 2, 2012

Testing Period Jul. 2, 2012 to Jul. 5, 2012

Test Requested As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)) in the submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)	MDL
Lead(Pb)	IEC 62321:2008 Ed.1 Sec.9	ICP-OES	2 mg/kg
Cadmium(Cd)	IEC 62321:2008 Ed.1 Sec.9	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 B	UV-Vis	/

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

Tested by

Sha Chen

Reviewed by

Wei Miao

Approved by

Chen Qian

Date

Jul. 5, 2012

Chen Qian

Approved Signatory

No. 13431686

Centre Testing International(Ningbo)Co.,Ltd. 7-8/F., Building A, No.750 Chuangyuan Road, Gaoxin District, Ningbo, Zhejiang, China

Test Report

Report No. RLNBE000088420001

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Test Result(s)

Tested Item(s)	Content
Lead(Pb)	N.D.
Cadmium(Cd)	N.D.
Mercury(Hg)	N.D.

Tested Item(s)	Conclusion
Hexavalent Chromium(Cr(VI))	Negative

Tested Sample/Part Description Metal with silver-grey cover layer

Note: The sample had been dissolved totally tested for Lead, Cadmium, Mercury.
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-Negative = Absence of Cr(VI) , the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm² sample surface area used.

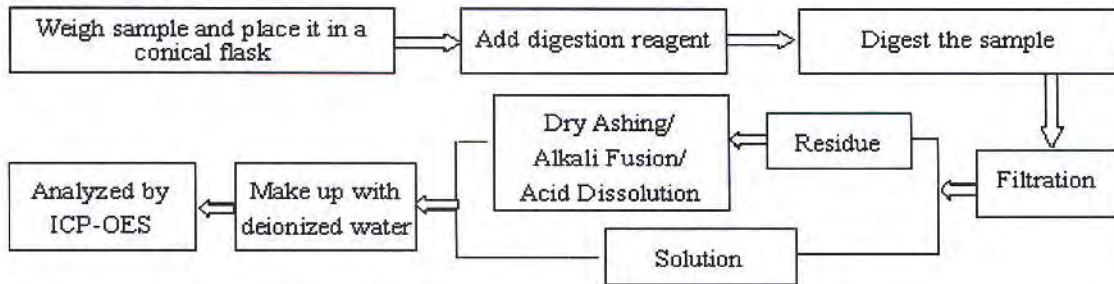
Test Report

Report No. RLNBE000088420001

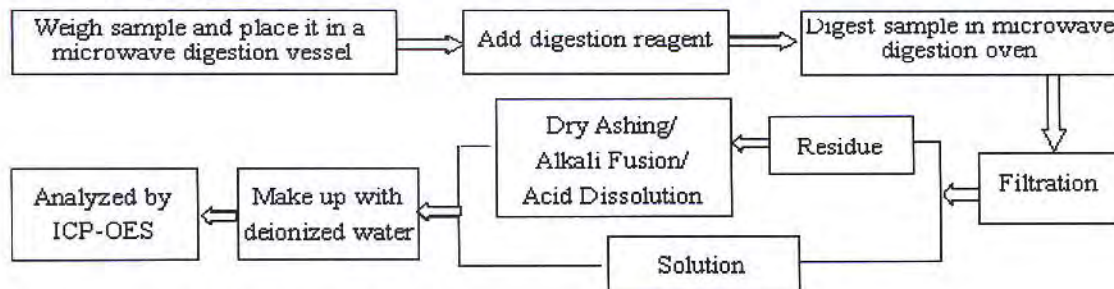
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Test Process

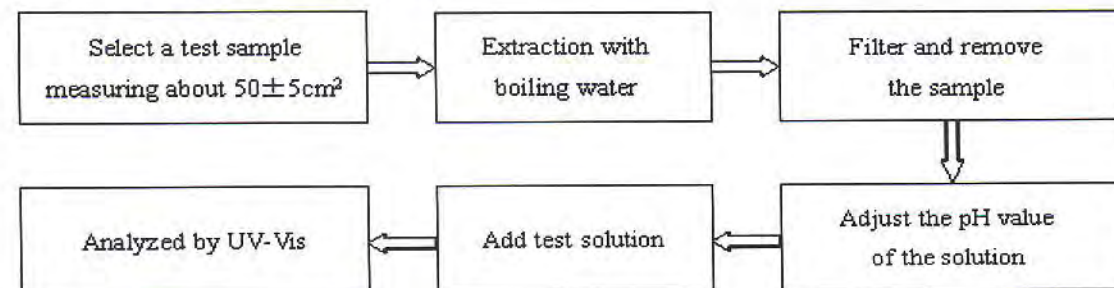
1. Lead(Pb), Cadmium(Cd)



2. Mercury(Hg)



3. Hexavalent Chromium(Cr(VI))

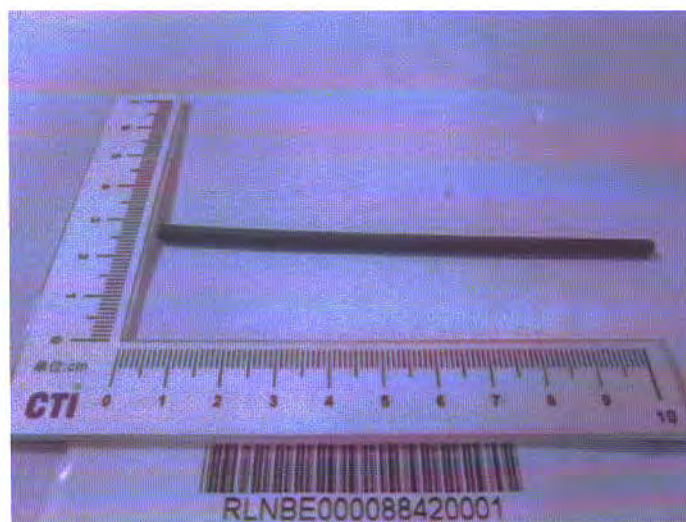


Test Report

Report No. RLNBE000088420001

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Photo(s) of the sample(s)



*** End of report ***

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.



Test Report.

No. CANML1201087902

Date: 17 Feb 2013.

Page 1 of 4.

DONGGUAN KAIDI METAL MATERIAL CO.,LTD.
XIAO-BIAN COUNTY CHANG-AN TOWN DONG-GUAN CITY GUANGDONG
CHINA.

The following sample(s) was/were submitted and identified on behalf of the clients as : SUS304.

SGS Job No. : 13634656 - GZ.
Internal Reference No. : GC120220228-5.2.
Date of Sample Received : 14 Feb 2013.
Testing Period : 14 Feb 2013 - 17 Feb 2013.
Test Requested : Selected test(s) as requested by client..
Test Method : Please refer to next page(s)..
Test Results : Please refer to next page(s)..
Conclusion : Based on the performed tests on selected part of submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium comply with the limits in RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC..

Signed for and on behalf of
SGS-CSTC Ltd..

Almay Gao.
Approved Signatory.

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Test Report.

No. CANML1201087902

Date: 17 Feb 2013.

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID.	Description.
1.	CAN12-010879.002	Silver-gray metal sheet.

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%.
- (2) MDL = Method Detection Limit.
- (3) ND = Not Detected (< MDL).
- (4) "-" = Not Regulated.

RoHS Directive 2011/65/EU.

Test Method : With reference to IEC 62321:2008

- (1) Determination of Cadmium by ICP-OES.
- (2) Determination of Lead by ICP-OES.
- (3) Determination of Mercury by ICP-OES.
- (4) Determination of Hexavalent Chromium by Spot test / Colorimetric Method using UV-Vis..

Test Item(s).	Limit.	Unit.	MDL.	002.
Cadmium (Cd).	100	mg/kg.	2	ND
Lead (Pb).	1,000	mg/kg.	2	ND
Mercury (Hg).	1,000	mg/kg.	2	ND
Hexavalent Chromium (CrVI).	-	-	◇	Negative

Notes :

- (1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II
 - (2) ◇ = a. Negative means the absence of CrVI on the tested areas;
b. Positive means the presence of CrVI on the tested areas.
- For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing..

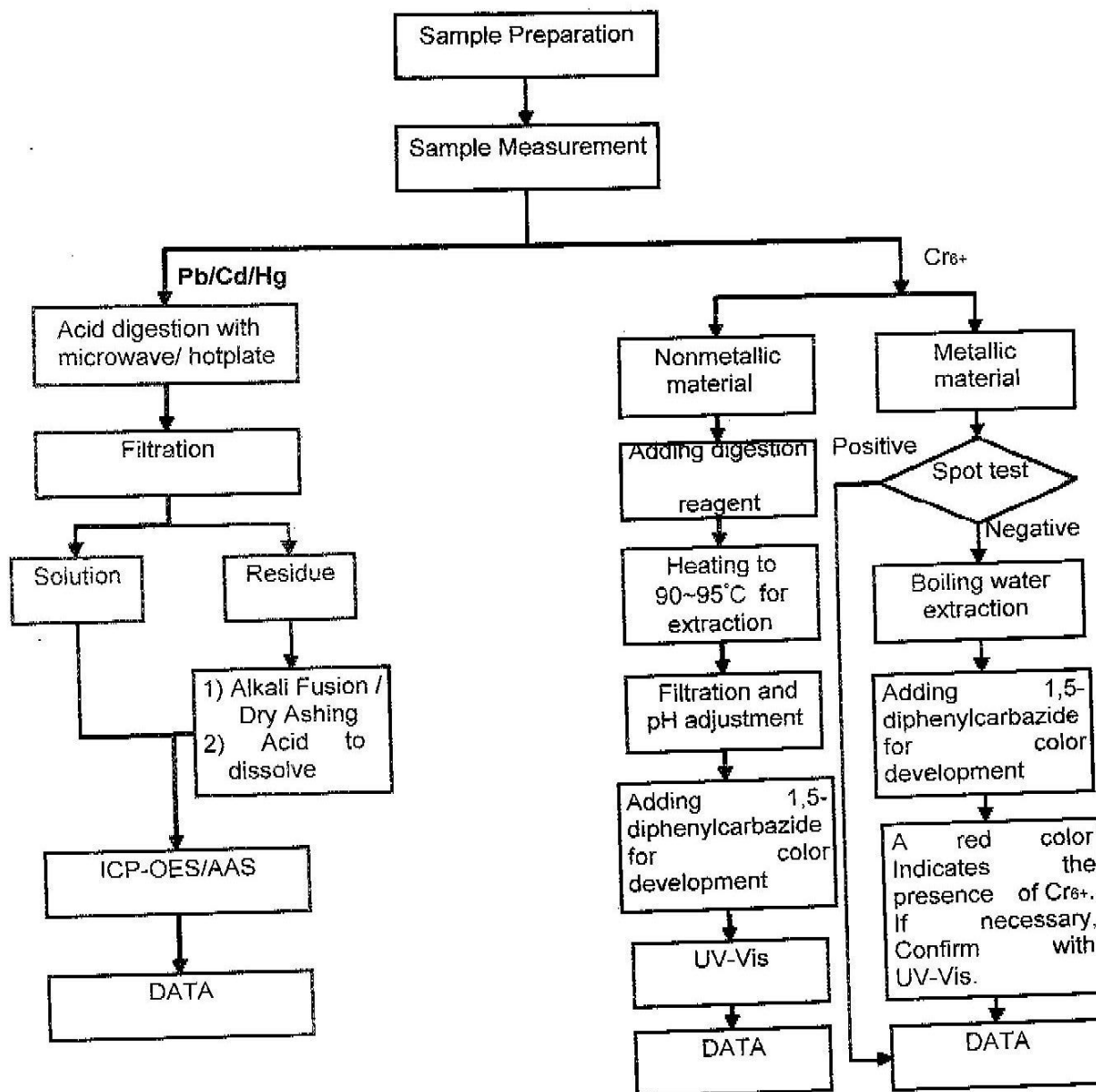
This document is the property of SGS and is loaned to the client for their use only. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of SGS. The client agrees to indemnify and hold SGS harmless from all claims, damages, losses, and expenses, including reasonable attorneys' fees, arising from the use of this document. The client also agrees to keep this document confidential and to use it only for the purpose for which it was provided. This document is the property of SGS and is loaned to the client for their use only. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of SGS. The client agrees to indemnify and hold SGS harmless from all claims, damages, losses, and expenses, including reasonable attorneys' fees, arising from the use of this document. The client also agrees to keep this document confidential and to use it only for the purpose for which it was provided.



ATTACHMENTS

RoHS Testing Flow Chart

- 1) Name of the person who made testing: Bella Wang / Ross Zhan
- 2) Name of the person in charge of testing: Adams Yu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr6+ test method excluded).



This certificate is issued by the laboratory which is fully accredited to the requirements of the International Standards for the testing of metals, alloys and non-metallic materials, and is subject to the terms and conditions of the certificate. The certificate is valid for the period of time specified in the certificate. The certificate is issued by the laboratory which is fully accredited to the requirements of the International Standards for the testing of metals, alloys and non-metallic materials, and is subject to the terms and conditions of the certificate. The certificate is valid for the period of time specified in the certificate.





Test Report

Report No. RLNBE000090170001

Page 1 of 4

Applicant YUEQING HUIFENG ELECTROPLATE FACTORY

Address NO528,XIANGTA WEST ROAD,BEIBAIXIANG TOWN,YUEQING CITY.
ZHEJIANG PROVINCE,CHINA.

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

Sample Name Tin Plating
Sample Received Date Jul. 12, 2012
Testing Period Jul. 12, 2012 to Jul. 14, 2012

Test Requested As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)) in the plating of submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)	MDL
Lead(Pb)	Plating layer test method (In-house method) and IEC 62321:2008 Ed.1 Sec.9	ICP-OES	2 mg/kg
Cadmium(Cd)	Plating layer test method (In-house method) and IEC 62321:2008 Ed.1 Sec.9	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 B	UV-Vis	/

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

Tested by

Sha Chen

Reviewed by

Wei Miao

Approved by

Chen Qian

Date

Jul. 14, 2012

Chen Qian

Approved Signatory

No. 13431669

Centre Testing International(Ningbo)Co.,ltd. 7-8/F.,Building A,No.750.Chuangyuan Road,Gaoxin District,Ningbo,Zhejiang,China

Test Report

Report No. RLNBE000090170001

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Test Result(s)

Tested Item(s)	Content
Lead(Pb)	258 mg/kg
Cadmium(Cd)	N.D.
Mercury(Hg)	N.D.

Tested Item(s)	Conclusion
Hexavalent Chromium(Cr(VI))	Negative

Tested Sample/Part Description Silvery plating

Note: The washed plating had been dissolved totally tested for Lead, Cadmium, Mercury.
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-Negative = Absence of Cr(VI) , the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm² sample surface area used.

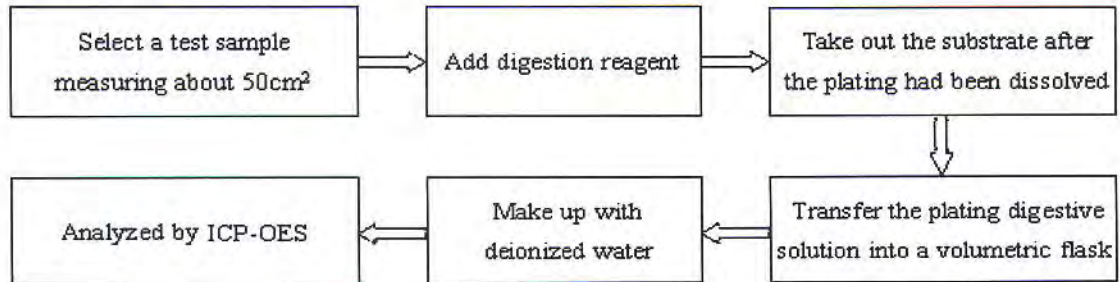
Test Report

Report No. RLNBE000090170001

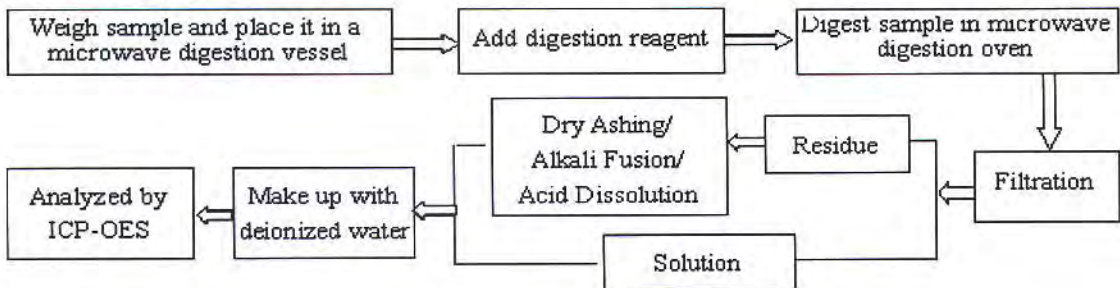
Page 3 of 4

Test Process

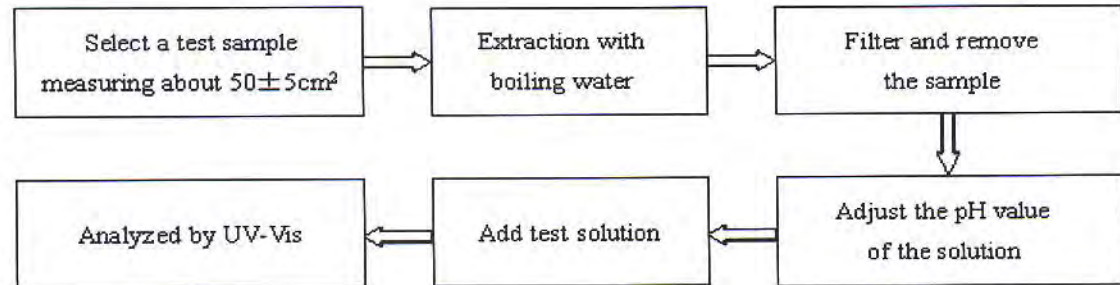
1. Lead(Pb), Cadmium(Cd)



2. Mercury(Hg)



3. Hexavalent Chromium(Cr(VI))

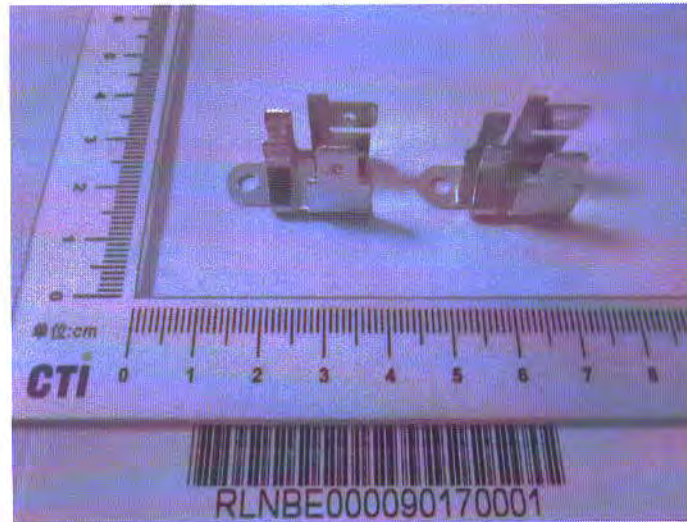


Test Report

Report No. RLNBE000090170001

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Photo(s) of the sample(s)



*** End of report ***

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

Test Report

Report No. RLNBE000088420002

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Applicant YUEQING DONGFENG FASTENERS COMPANY
Address NO528,SOUTH STREET,BEIBAIXIANG TOWN,YUEQING CITY. ZHEJIANG PROVINCE,CHINA.

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

Sample Name Zinc Plating
Sample Received Date Jul. 2, 2012
Testing Period Jul. 2, 2012 to Jul. 5, 2012

Test Requested As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)) in the plating of submitted sample(s).

Test Method

Test Item(s)	Test Method	Measured Equipment(s)	MDL
Lead(Pb)	Plating layer test method (In-house method) and IEC 62321:2008 Ed.1 Sec.9	ICP-OES	2 mg/kg
Cadmium(Cd)	Plating layer test method (In-house method) and IEC 62321:2008 Ed.1 Sec.9	ICP-OES	2 mg/kg
Mercury(Hg)	Plating layer test method (In-house method) and IEC 62321:2008 Ed.1 Sec.7	ICP-OES	2 mg/kg
Hexavalent Chromium(Cr(VI))	IEC 62321:2008 Ed.1 Annex B	UV-Vis	/

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

Tested by

Sha Chen

Reviewed by

Wei Miao

Approved by

Chen Qian

Date

Jul. 5, 2012

Chen Qian

Approved Signatory

No. 13431686

Centre Testing International(Ningbo)Co.,ltd. 7-8/F.,Building A,No.750.Chuangyuan Road,Gaoxin District,Ningbo,Zhejiang,China

Test Report

Report No. RLNBE000088420002

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Test Result(s)

Tested Item(s)	Content
Lead(Pb)	N.D.
Cadmium(Cd)	N.D.
Mercury(Hg)	N.D.

Tested Item(s)	Conclusion
Hexavalent Chromium(Cr(VI))	Negative

Tested Sample/Part Description Light blue plating

Note: **The washed plating had been dissolved totally tested for Lead, Cadmium, Mercury.**
-MDL = Method Detection Limit
-N.D. = Not Detected (<MDL)
-mg/kg = ppm = parts per million
-Negative = Absence of Cr(VI) , the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm² sample surface area used.

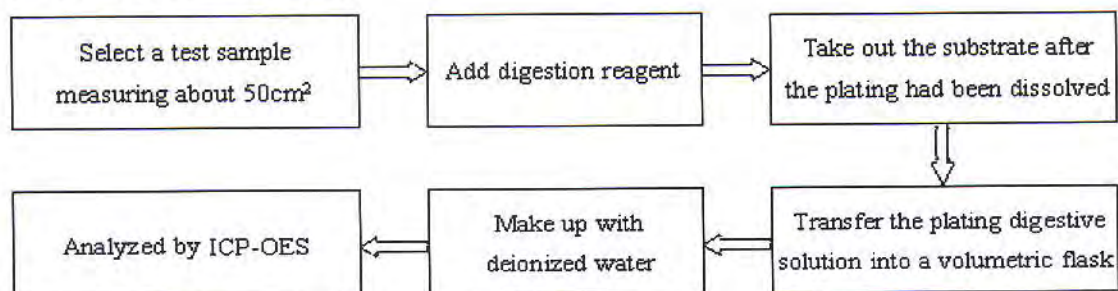
Test Report

Report No. RLNBE000088420002

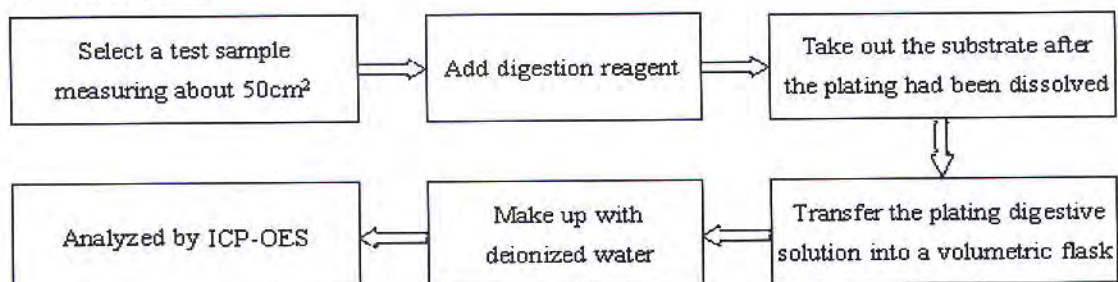
Page 3 of 4

Test Process

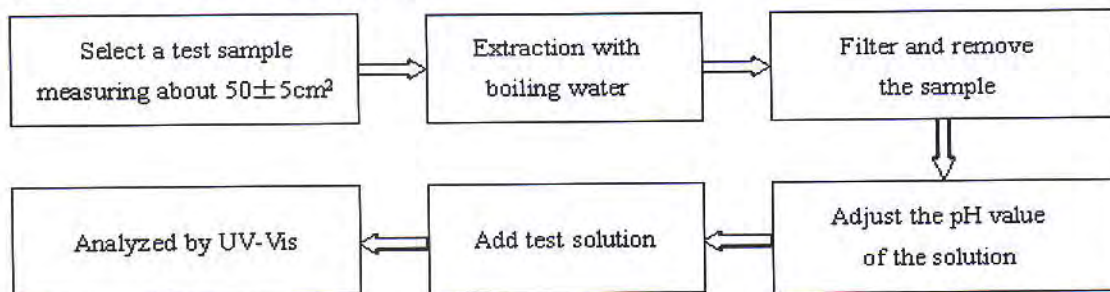
1. Lead(Pb), Cadmium(Cd)



2. Mercury(Hg)



3. Hexavalent Chromium(Cr(VI))



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Photo(s) of the sample(s)



*** End of report ***

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检测报告

报告编号 RLSDF000207040003C

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申请单位 佛山市美嘉油墨涂料有限公司
地 址 广东省佛山市高明区更合镇更合大道

以下测试之样品及样品信息由申请者提供并确认

样品名称 其他颜色油墨
样品型号 请参见附页
样品接收日期 2013.02.27
样品检测日期 2013.02.27—2013.03.02

检测要求 根据客户要求, 对所提交样品中的铅(Pb), 镉(Cd), 汞(Hg), 六价铬(Cr(VI)), 多溴联苯(PBBs), 多溴二苯醚(PBDEs)进行测试。

检测依据 请参见下页。

检测结果 请参见下页。

结论

测试样品	依据指令	结果
提交样品	2011/65/EU*	合格

*=2011 年 7 月 1 日, 欧盟在其官方公报上正式发布了 RoHS (2002/95/EC) 的重订指令 2011/65/EU。该指令已于欧盟官方公报公布的 20 天后生效。

主 检:

冯贯叶

审 核:

王文章

批 准:

万庆红

口 期:

2013.03.02

万庆红
技术经理

No. 11441330

深圳市华测检测技术股份有限公司顺德分公司 广东省佛山市顺德区容桂容奇大道东 8 号之二永盈大厦 9 楼

检测报告

报告编号 RLSDF000207040003C

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检测依据

测试项目	测试方法	测试仪器	方法检测限
铅(Pb)	IEC 62321:2008 Ed.1 Sec.10	ICP-OES	2 mg/kg
镉(Cd)	IEC 62321:2008 Ed.1 Sec.10	ICP-OES	2 mg/kg
汞(Hg)	IEC 62321:2008 Ed.1 Sec.7	ICP-OES	2 mg/kg
六价铬(Cr(VI))	IEC 62321:2008 Ed.1 Annex C	UV-Vis	2 mg/kg
多溴联苯(PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg
多溴二苯醚(PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg

检测结果

测试项目	结果	指令限值
铅(Pb)	N.D.	1000 mg/kg
镉(Cd)	N.D.	100 mg/kg
汞(Hg)	N.D.	1000 mg/kg
六价铬(Cr(VI))	N.D.	1000 mg/kg
多溴联苯(PBBs)		
一溴联苯	N.D.	1000 mg/kg
二溴联苯	N.D.	
三溴联苯	N.D.	
四溴联苯	N.D.	
五溴联苯	N.D.	
六溴联苯	N.D.	
七溴联苯	N.D.	
八溴联苯	N.D.	
九溴联苯	N.D.	
十溴联苯	N.D.	

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检测结果

测试项目	结果	指令限值
多溴二苯醚(PBDEs)		
一溴二苯醚	N.D.	1000 mg/kg
二溴二苯醚	N.D.	
三溴二苯醚	N.D.	
四溴二苯醚	N.D.	
五溴二苯醚	N.D.	
六溴二苯醚	N.D.	
七溴二苯醚	N.D.	
八溴二苯醚	N.D.	
九溴二苯醚	N.D.	
十溴二苯醚	N.D.	

测试样品/部位描述 深蓝色液体

注释：1. 对于检测铅，汞，镉之样品已完全溶解。

2. 此测试结果是基于样品干重计算而得。

-N.D.= 未检出 (小于方法检测限)

-mg/kg=ppm =百万分之几.

备注：报告编号末尾中“C”表示此报告为中文版本.

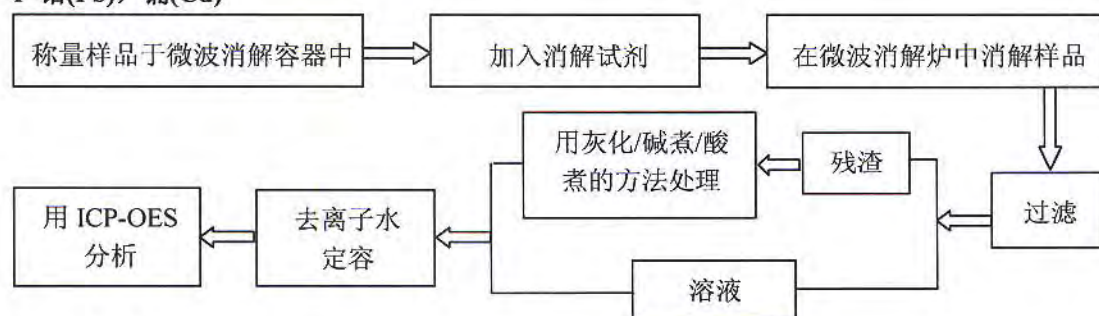
检测报告

报告编号 RLSDF000207040003C

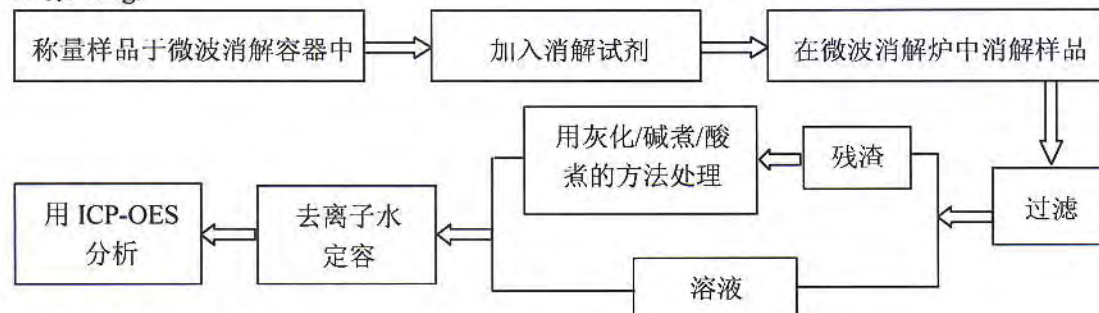
第 4 页 共 9 页

检测流程

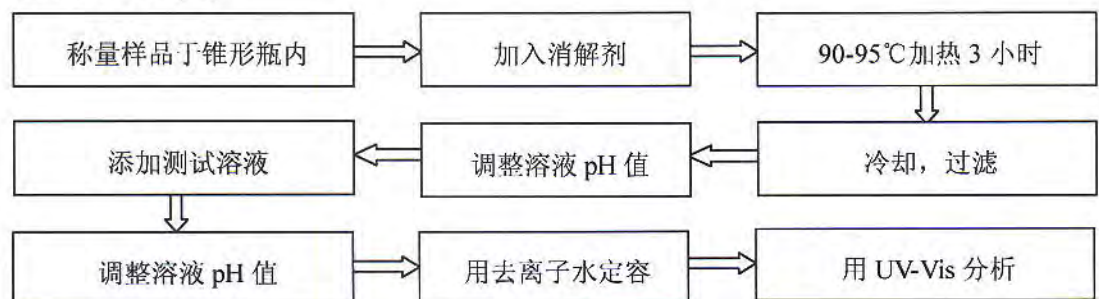
1 铅(Pb), 镉(Cd)



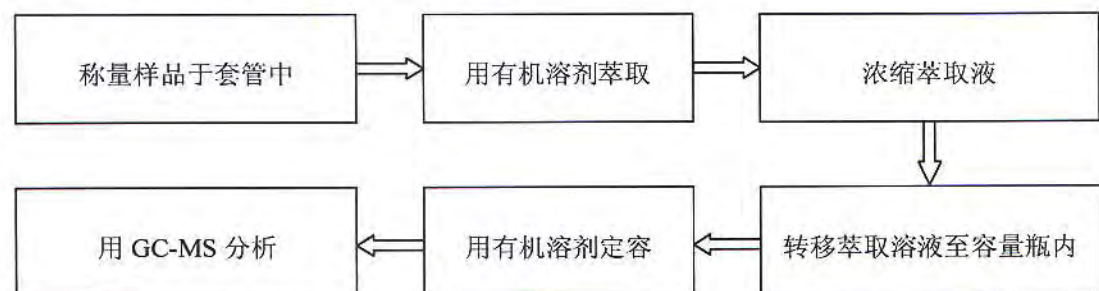
2. 汞 (Hg)



3 六价铬 (Cr(VI))



4. 多溴联苯 (PBBs), 多溴二苯醚 (PBDEs)

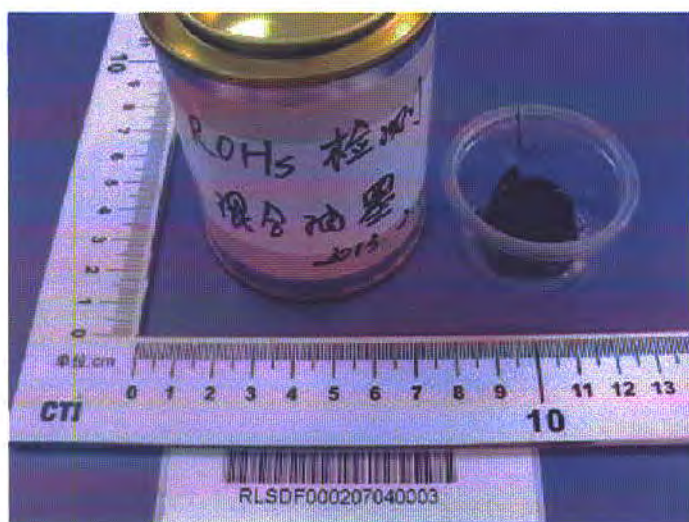


检测报告

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样品照片



检测报告

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附页: 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; S906; T2141; T5102; T8091;

11 系列: W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; T2369; K100-B; T6863

12 系列: W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; *12-W100; T4506; T4507; T5110; T5726; T5727; T5728; T5729; T5730; T5731; T5732; T5814; T6604; T7134; T7135; T7309; T9655; T10541; T10542; T10543; T10544; T10992;

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

20 系列: W100-3; K100-3; R100-3; M100-3; Q100-3; B100-3; V100-3; G100-3; 195; TS206; TS302; TS403; W300-A; 195; K100-3;

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; R100/5; M100; Q100; V100; E100; B100; G100;

K100; K100-3; 195; 195-A/5; 895-A/ 胶罐; K100-A/5; T 5682; K500; T9135/5; T9137/5; T9503/5; T9537B; W100-A/5; *25-195/胶罐; T10558; T10558/5; T9135/5; T9137/5; T9503/5; T9537B

26 系列: W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; K100-3/5; 195; 195/5; M900; W100-3/5; T9135; T9136; T9137;

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

28* (28) 系列: W100; W100-B; W100-3; R100; R100-B; M100; Q100; V100; E100; B100; B100-B; G100; G100-B; K100; K100-3; K100-3-B; 195; W100-B-3; K100-B-3; T9771; 195-B; 195-B/5; K100-3-B; W100-3-B; G0590; V100-B; C191/0.1; K100-B; UV000; UV000/5; W100/5; T2831; T9221;

29 系列: W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; T2168

31 (PCT) (-B) 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); M902; M903; S906; TH206; TH302; TH403;

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; B200; C191; K200; M200; Y200;

46 系列: W100; W100-3; R100; M100; Q100; V100; E100; B100; G100; K100; K100-3; 195; T10539; T7943; T7944;

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; 195/5; C191; T8872; T9220; 895; C191/0.25; P2134-1; P2174; P2291; P2292; P2331; P2332; P2363; P2371; P2372; P2373; P2374; P237;

P2376; P2381; P2382; P2383; P2377; P2400; P2401; P2402; P2404; P2413; P2341; T9086; T9087; T9088;

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报告编号 RLSDF000207040003C

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T9089;T10537;T9418;T9418/5

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;

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T4573;T10087;

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;

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;TS206;TS302;TS403;W300-A;195;K100-3;

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;

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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; 1083-3/20;
1075-3; 1095;1091;1035-6;1048-6;1053-6;1075-6;1083-6; 1083-6/20;8004; 8006;

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

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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(-B)系列: 1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; 295;

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;

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; 008; R530; G320; B460; Q580

AET 系列: W100; F880;

VK3 系列: P75-1; P83-1; 195

VK7 贴花系列: 1035; 1042; 1046; 1048; 1050; 1052; 1053; 1057; 1059; 1063; 1075; 1083; 1083-3; 1075-3; 1095; G320(南粤); P26-8(南粤); P35-8(南粤); P42-8(南粤); P46-8(南粤); P48-8(南粤); P50-8(南粤); P53-8(南粤); P59-8(南粤); P63-8(南粤); P75-8(南粤); P83-8(南粤); R538(南粤);

SG 贴花: W100-3; K100; R100; M100; V100; B100; G100; E100; S125; B460; G320; P208; Q580; R530; 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; PY2033; T5250;

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

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

60 触摸屏油墨系列: W100 W100-3, R100, M100, Q100, V100, E100, B100, G100, K100, K100-3, 195

TH 系列: W100, W100-3, R100, M100, Q100, V100, E100, B100, G100, K100, K100-3, 195

52 系列: P83, P88, P35, P42, P33, P75, M903, M905, TR01, TR02, TR03, P46, P53, P50, P57, P48, P63, M901

53 系列: P83, P88, P35, P42, P33, P75, M903, M905, TR01, TR02, TR03, P46, P53, P50, P57, P48, P63, M901

其他: T4573; 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;

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SS777; TUV; A4163; G0600; S906-S; T7319; P2425; T7812; T7813; T9939;

助剂及溶剂: STUR-100B; STUR-100B/0.1; PPS-01; PPS-01/0.5; S907; S909; 2000#; 2000#/3; 2200#;
2200#/32600#; 3000#; 3000#/15; 3000 (万家乐); 5000#/3; 840#; 721#; 7000#; 7200#; 7600#
5000#; 5500#; 8000#; 888#; 777#; 783#; GP1006; GP-1006/1; GP1007; GP1008; 783#; S407#; S408#; 719#;
718#; 718#/15; S408#; S482#; 842#; 3000#; 861#; 861#/3; 862#; UR-100B; GRU-200B; 844#/3; ; 862#/3; 844#

*** 报告结束 ***

检测报告无批准人签字及“报告专用章”无效,本报告检测结果仅对受测样品负责。未经 CTI 书面同意,不得部分复制本报告。