

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

晶暉科技股份有限公司

日 期
DATE

2007/12/13

品 名
DESCRIPTION

WSS001 Dual Band Dipole Antenna
with RP-SMA(M)(Black)

客 戶 料 號
CUSTOMER P/N

A2-WSS001-F 5.8G

成 品 編 號
Part NO.

YXW1016A1



萬旭電業股份有限公司

WANSHIH ELECTRONIC CO., LTD.

台北縣五股鄉五工六路 72 號 3 樓

3F 72 WU KONG 6TH RD., WU KU INDUSTRIAL DISTRICT

TAIPEI HSIEN, TAIWAN, R.O.C.

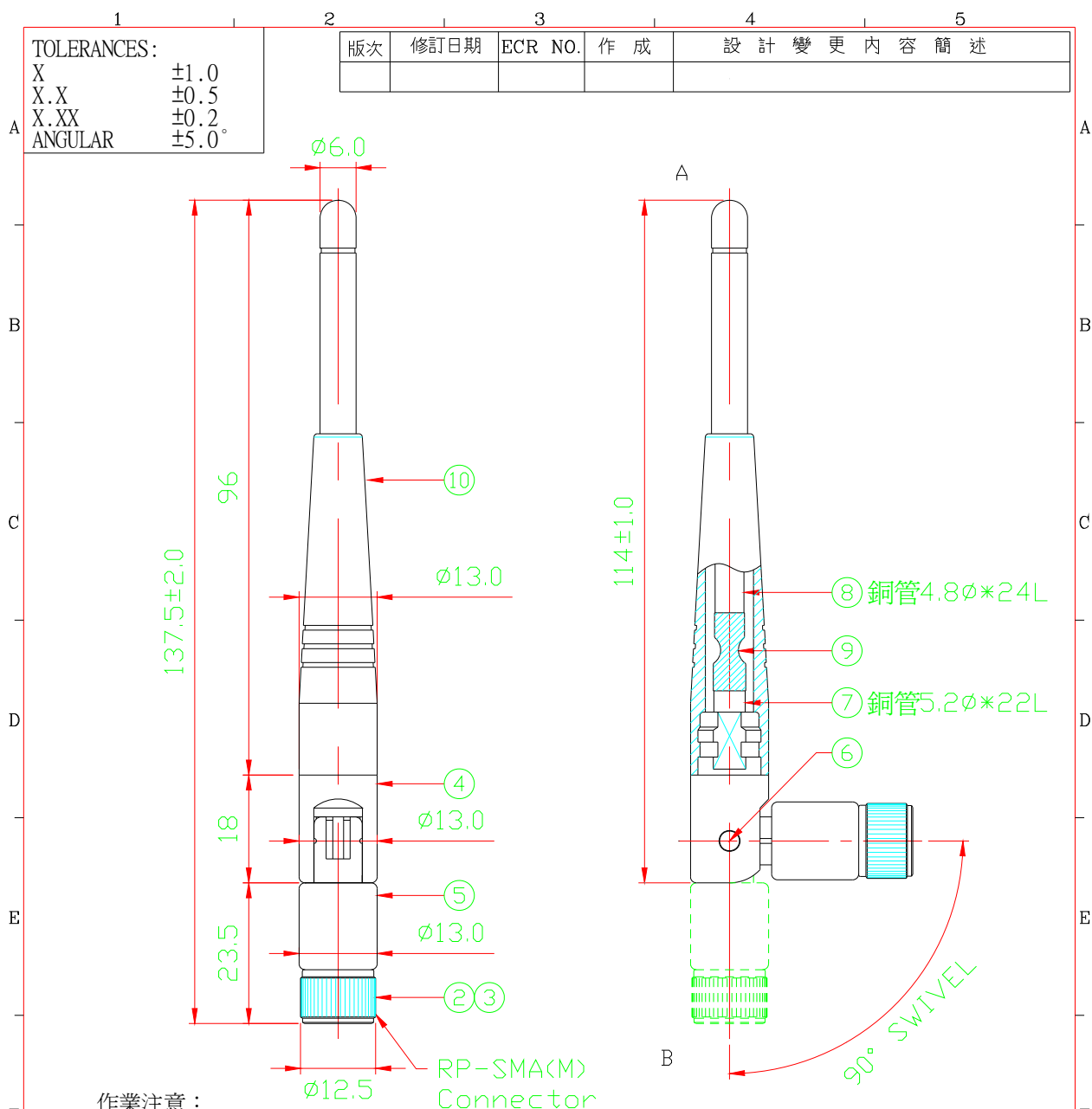
TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

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SPECIFICATION

- | | |
|-------------------------------|---------------------------------------|
| 1. Description | : WSS001 Dual Band Dipole Antenna |
| 2. Customer | : 晶暉科技股份有限公司 |
| 3. Model No. | : WSS001 |
| 4. Part No. | : YXW1016A1 |
| 5. Standard | : IEEE 802.11a/b/g Wireless LAN |
| 6. Antenna Profile | : 137.5 mm (see Drawing) |
| 7. Color | : Black |
| 8. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5 & 5.15~5.35 & 5.725~5.85GHz |
| Antenna Type | : Dipole |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Peak Gain | : 2.0 dBi Typical |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max. |
| 9. Mechanical Characteristics | |
| Connector | : RP-SMA(M) |
| Core | : N/A |
| 10. Raw Material | |
| Coaxial Cable | : RG-178 |
| Housing | : TPU |
| Hinge | : PC+ALLOY |



作業注意：

1. 天線本體，WSW0028A、WSW0055A 天線作業標準指導書規定製作。
依據 AQ-0028A、AQ-0055A QC管理工程圖，執行品質管制。

10	外套 L96<黑>	√	B2WSS001L096IT	@WSS001 13 φ*96L 外套<黑>	黑		1	或同級品
9	熱縮套管	√	53A405002000BC	@F34 5.0 黑 L=20mm	黑		1	或同級品
8	銅管 24L	√	B248L2400000A5	@4.8 φ*24L 銅管<平頭>	銀		1	或同級品
7	銅管 22L	√	B252L2200000A5	@5.2 φ*22L FOR 178 銅管<平頭>	銀		1	或同級品
6	固定鉚釘(黑鋅)	√	B02892200160A5	@028922001-6 4.80*1.95 φ 固定鉚釘<大>(黑鋅)	黑		2	或同級品
5	下座<黑>	√	B130L02550001I	@13 φ 下座 *25.5L <黑>	黑		1	或同級品
4	上座<黑>	√	B130L02800001I	@13 φ 上座 *28L 孔15.2*7.25 <黑>	黑		1	或同級品
3	RP-SMA φ12.5 連接軸	√	B0249AB000000A5	@0249A-B Connector RP-SMA(M) φ12.5 銀	銀		1	或同級品
2	RP-SMA φ12.5 本體	√	B0249AA000000A5	@0249A-A Body RP-SMA(M) φ12.5 Connector 黑	黑		1	或同級品
1	RG-178 Coaxial Cable	√	19RG17800030AE	@RG-178 CABLE 105SV(萬泰)	橙	54	1	或同級品
NO	材料名稱	環材	電腦編號	零件規格	顏色	切斷尺寸	用量	備註

修訂日期：

制訂日期：2007/12/05

頁數：1/1

核 准

審 查

作 成

承認圖號

A2-WSS001-F 5.8G

第三角法

Jason

郭慧純

郭雅珍

品 名

WSS001 Dual Band Dipole Antenna
with RP-SMA(M)(Black)

單位：mm

比例：FREE

成品編號

YXW1016

REV
A

VERSION
1

萬旭電業股份有限公司

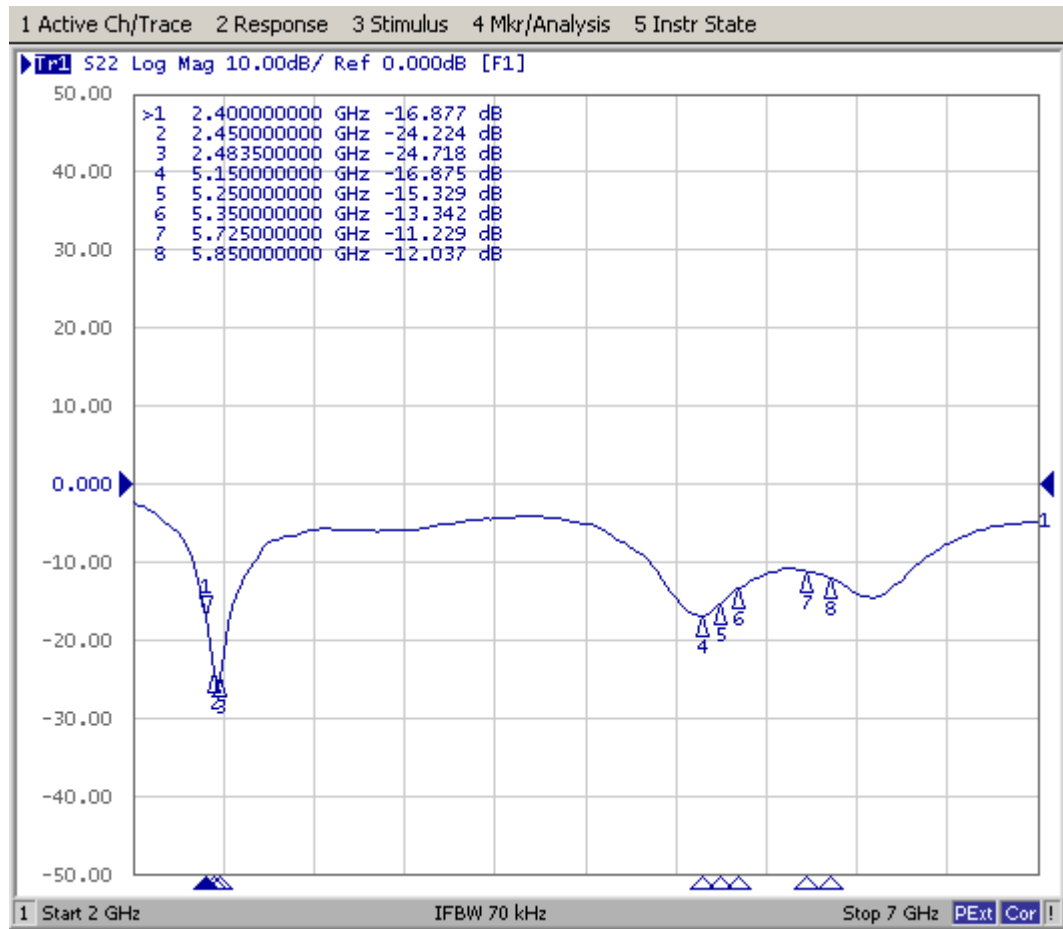
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文件編號：FMT-0513-D7



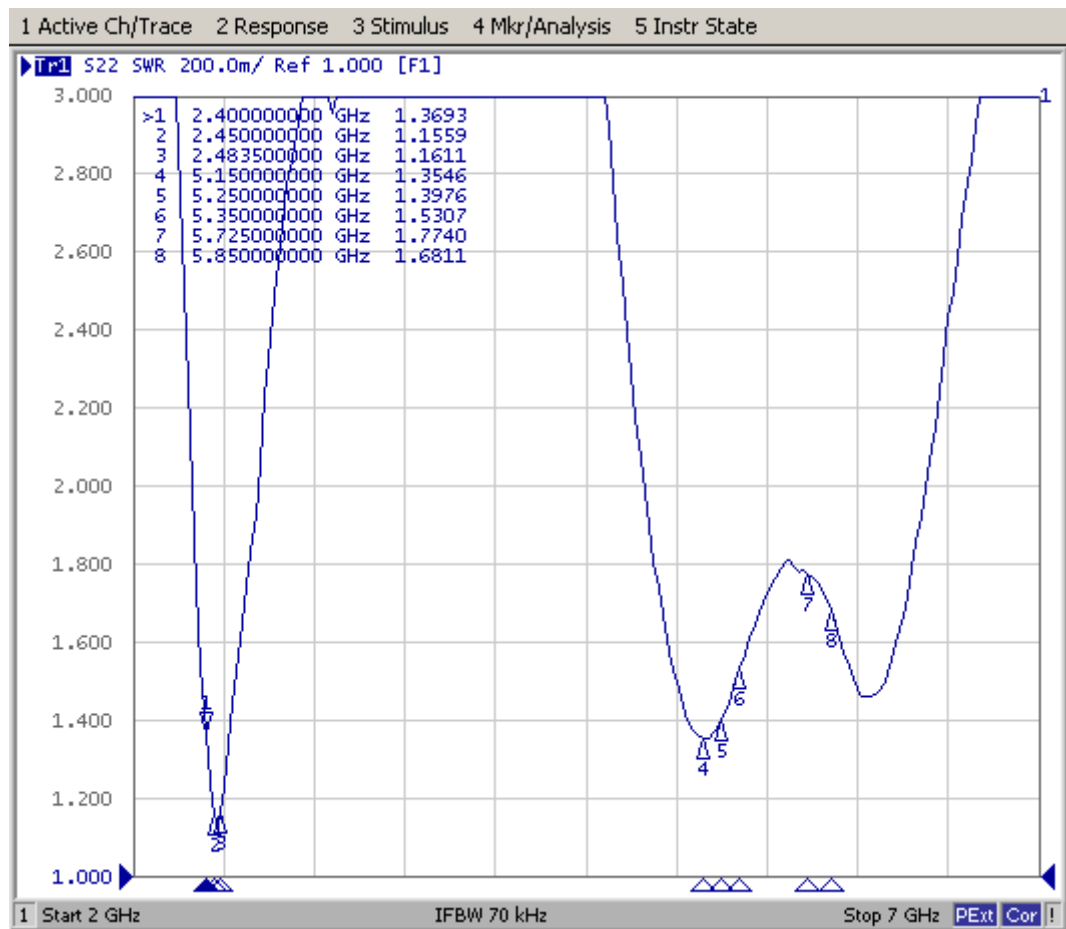
Electrical Properties

Return Loss



Electrical Properties

V.S.W.R



Electrical Properties

Radiation Pattern – H Plane

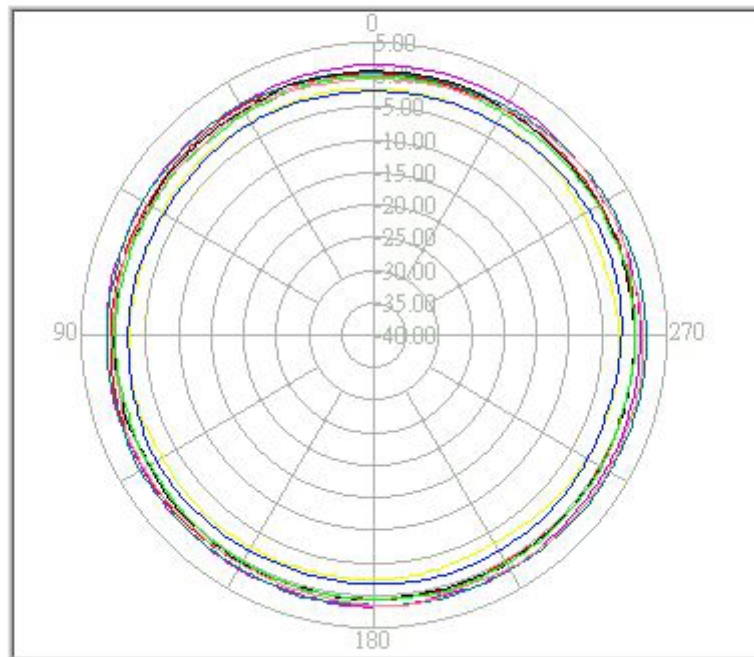


萬旭電業股份有限公司

Model No: DB

Antenna Position: Vertical

Test Mode: H-PLANE



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	-1.98	348.94	-2.35
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	1.01	235.90	0.41
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	-1.36	235.90	-2.00
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5150.00	1.79	181.84	1.30
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5250.00	2.02	127.78	1.32
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5350.00	0.76	184.30	0.24
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5725.00	0.95	162.18	-0.01
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5850.00	1.78	170.78	0.68

Electrical Properties

Radiation Pattern – E Plane

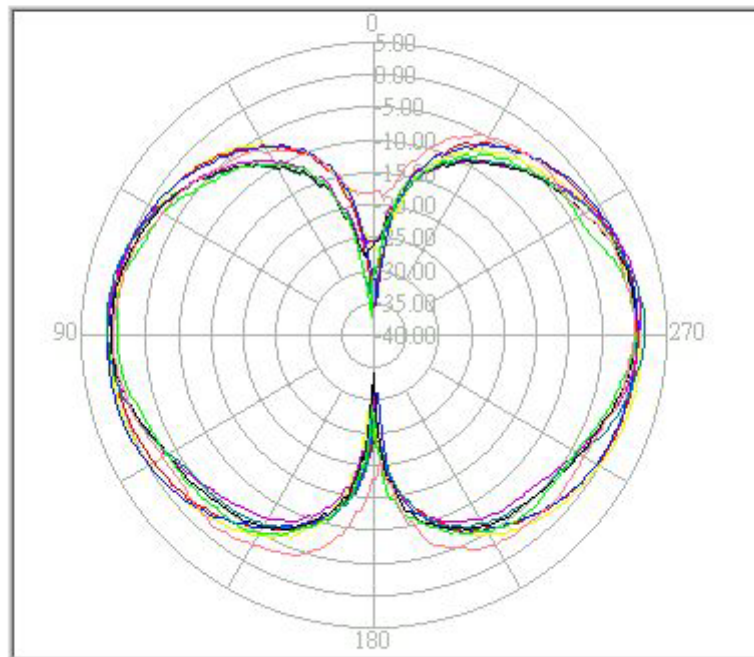


萬旭電業股份有限公司

Model No: DB

Antenna Position: Horizontal

Test Mode: E-PLANE



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	1.17	98.29	-2.40
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	0.47	97.06	-2.58
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2490.00	1.00	261.71	-2.36
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5150.00	1.25	79.86	-3.47
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5250.00	1.73	88.46	-3.25
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5350.00	0.37	270.31	-3.78
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5725.00	0.24	89.69	-4.12
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5850.00	0.19	84.78	-3.06

Material Data Sheet

Connector/Sleeve/Rivet



测试报告

编号 : GZ0701002987/CHEM

日期 : 2007 年 1 月 10 日 页码 1 of 3

佛山市南海信兴铜业有限公司
佛山市南海区大沥奇槎铺前工业区

以下测试之样品是由申请者所提供及确认: 3604 快削铜条

SGS 参考编号 : GC070100011-1

收板日期 : 2007 年 1 月 4 日

测试日期 : 2007 年 1 月 4 日至 2007 年 1 月 10 日

测试要求 : 按照 RoHS 指令 2002/95/EC 及其修订文件要求进行测试。

测试方法 : 参照 IEC 62321 Ed.1 111/54/CDV 电子电器产品中限用物质含量的测定程序

- (1) 用 ICP 测定镉的含量
- (2) 用 ICP 测定铅的含量
- (3) 用 ICP 测定汞的含量
- (4) 用比色法测定六价铬的含量

测试结果 : 请参见下一页

测试结论 : 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不相符。

Signed for and on behalf of
SGS-CSTC Ltd.

A handwritten signature in black ink, appearing to read 'Jiang YongPing', is written over a light gray rectangular background.

Jiang YongPing, Terry
Sr. Engineer

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测试报告

编号 : GZ0701002987/CHEM

日期 : 2007 年 1 月 10 日 页码 2 of 3

测试结果 (单位: 毫克/千克):

测试项目	参考方法	No.1	MDL	RoHS 限值
镉 (Cd)	(1)	31	2	100
铅 (Pb)	(2)	30648*	2	1000
汞 (Hg)	(3)	N.D.	2	1000
点测试法测六价铬(Cr VI)	(4)	Negative	参见 注释 4	#

测试部件描述:

No.1 金色金属棒

注释 : 1. 毫克/千克 = ppm

2. N.D.= 未检出 (< MDL)

3. MDL = 方法检测限

4. 点测试:

Negative = 未检测到六价铬, Positive = 检测到六价铬;

(如果点测试结果不能确认, 测试样品将进一步由沸水萃取法进行测试)。

沸水萃取法:

Negative = 未检测到六价铬

Positive = 检测到六价铬; 每 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 0.02mg/kg。

5. # Positive = 阳性,表示结果与 RoHS 要求相抵触

Negative = 阴性,表示结果与 RoHS 要求不相抵触

6. *: 表示超过限值

7. 本测试报告内容是参照报告编号为 GZ0701000033/CHEM 的中文译本, 中英文版本如有歧异, 概以英文版为准。

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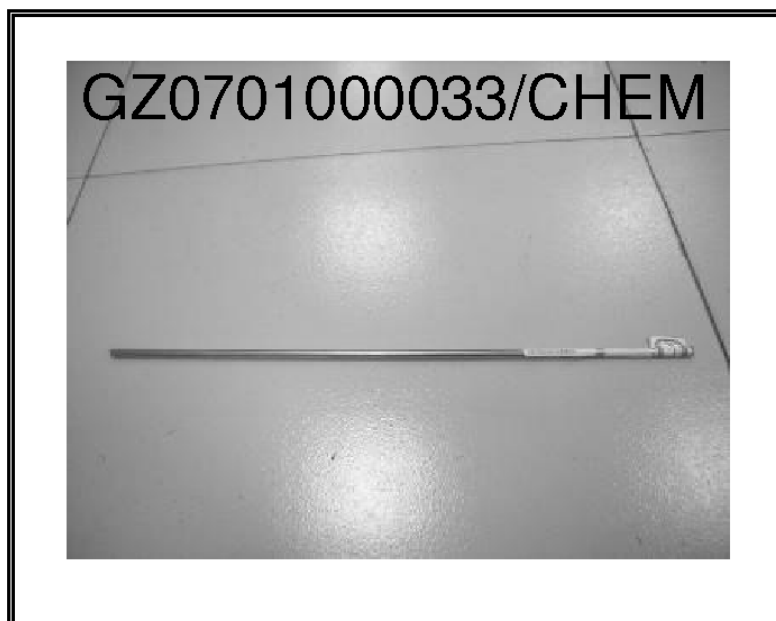


测试报告

编号 : GZ0701002987/CHEM

日期 : 2007 年 1 月 10 日 页码 3 of 3

样品照片:



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Test Report

No.: GZ0608148488/CHEM

Date: AUG 11, 2006

Page 1 of 1

SHENZHEN YOUXING (NANFANG) METAL FACTORY
NUMBER 8, HENGCHANG ROAD, XINGSHENG VILLAGE, LONGGANG TOWN, SHENZHEN CITY

Report on the submitted sample said to be 三价镀锌

SGS Ref No. : GZ10031838EC-3.1
Sample Receiving Date : AUG 01, 2006
Testing Period : AUG 01, 2006 TO AUG 08, 2006

Test Requested : As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.

Test Method : Lead content - With reference to EPA 3050B: 1996 & other acid digestion.
Cadmium content - With reference to BS EN1122: 2001 method B & other acid digestion.
Mercury content - With reference to EPA 3052: 1996 & other acid digestion.
Hexavalent Chromium content - As specified by client, with reference to ISO 3613: 2000 (Clause 5.6).
Analysis was performed by Atomic Absorption Spectrometer and Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) & UV-VIS Spectrophotometer.

Results

Item	Unit	MDL	Black plated metal screw
Lead Content (Pb)	ppm	2	4
Cadmium Content (Cd)	ppm	2	N.D.
Mercury Content (Hg)	ppm	2	N.D.
Hexavalent Chromium Content (Cr VI)	$\mu\text{g/cm}^2$	0.02	N.D.
	ppm	4	N.D.

Note : N.D. = Not Detected (< MDL)

MDL = Method Detection Limit

ppm = mg/kg

The result & MDL of Cr(VI) shown as "ppm" is calculated on 7 μm electroplating ($\rho=7.17\text{g/cm}^3$) (this information was submitted by client), and it would be different if thickness and material of Electroplating differ from assumption.
This report is to supplement test report GZ0608148488/CHEM

*** End of Report ***

Signed for and on behalf of
SGS-CSTC Ltd.

Wang HongLai, Leo
Sr. Engineer

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Test Report

No.: GC060902625

Date: SEP 19, 2006

Page 1 of 2

广东省东莞市声鑫电子有限公司
广东省东莞市横沥镇河唇工业区中顺厂内

Report on the submitted sample said to be: 电芯黑

SGS Ref No. : GZ0609138243/CHEM
Buyer : 刘发
Sample Receiving Date : SEP 08, 2006
Further Sample Receiving Date : SEP 18, 2006
Testing Period : SEP 06, 2006 TO SEP 19, 2006

Test Requested : As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.


Test Method : Lead content - With reference to EPA 3050B: 1996 & other acid digestion.
Cadmium content - With reference to BS EN1122: 2001 method B & other acid digestion.
Mercury content - With reference to EPA 3052: 1996 & EPA 7473: 1996 & other acid digestion.
Hexavalent Chromium content - With reference to EPA 3060A: 1996 & EPA 7196A: 1992.
Analysis was performed by Atomic Absorption Spectrometer & Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) & Direct Mercury analyzer & UV-VIS Spectrophotometer.

Results

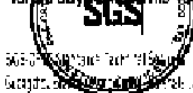
Item	Unit	MDL	Black liquid
Lead Content (Pb)	mg/kg	2	N.D.
Cadmium Content (Cd)	mg/kg	2	N.D.
Mercury Content (Hg)	mg/kg	2	N.D.
Hexavalent Chromium Content [Cr(VI)]	mg/kg	2	N.D.

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

Signed for and on behalf of
SGS-CSTC Ltd.


May Huo
Engineer

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Guangdong Branch | 中国·广州·经济技术开发区科学城彩虹路198号 | 邮编: 510663 | Tel: (86-20) 82155578 | Fax: (86-20) 82155579 | sgs.china@sgs.com

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Test Report

No.: GC080902626

Date: SEP 19, 2006

Page 2 of 2

SAMPLE PHOTO



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3-17226, East Technical Services, Inc.

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GZML 024444

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Test Report

No. SH6060096/CHEM

Date: Jun. 2, 2006

Page 1 of 5

SHANGHAI VALQUA FLUOROCARBON PRODUCTS CO., LTD.
NO.255 JIANGTIAN ROAD(E), SONGJIANG INDUSTRIAL ZONE SHANGHAI

Report on the submitted sample said to be PTFE ROD.

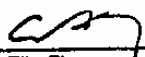
SGS Ref No. : SHEC0060525770
Model No. : PTFE ROD
Material : PTFE
Main substance : PTFE

Sample Receiving Date : May.22, 2006
Testing Period : May.22-Jun.02, 2006

Test Requested : 1) To determine the Cadmium, Lead Content in the submitted sample.
2) To determine the Mercury Content in the submitted sample.
3) To determine the Hexavalent Chromium Content on the submitted sample.
4) To determine the PBBs(Polybrominated biphenyls) PBBEs(PBDEs)
(Polybrominated biphenyl ethers) Content of the submitted sample.
5) To determine the PCBs(Polychlorinated Biphenyls) Content of the submitted sample.
6) To determine the Polychlorinated Naphthalene Content of the submitted sample.
7) To determine the Short Chain Chlorinated Paraffin content of the submitted sample.
8) To determine the Mirex(CAS NO:002385-85-5) Content of the submitted sample.
9)**To determine the Asbestos Content of the submitted sample.
10)***As specified by client, to detection and determination of certain listed aromatic amines derived from Azo Colorants

Test Results/ Test Method : Please refer to next page

Signed for and on behalf of
SGS-CSTC Chemical Laboratory


Ella Zhang

Sr. Section Head

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SGS-CSTC Standards Technical Services Co., Ltd.
Shanghai Standards Technical Services Co., Ltd. Chemical Laboratory

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SHCHEM 739094

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Test Report

No. SH6060096/CHEM

Date: Jun. 2, 2006

Page 2 of 5

Test Method

- 1) In house method.
Analysis was performed by Inductively Coupled-Argon Plasma-Atomic Emission Spectrometry (ICP-AES) or Atomic Absorption Spectrometry.
- 2) In house method.
Analysis was performed by Inductively Coupled Argon Plasma - Atomic Emission Spectrometry (ICP-AES) or US EPA7473 Analysis was performed by Hg Analyzer.
- 3) With reference to EPA Method 3060A & 7196A.
The samples were alkaline digested by using EPA Method 3060A, and then analyzed by using Colorimetric method 7196A.
- 4) With reference to USEPA 8081A/8270D/3540C/3550C, Analysis was performed by GC/MS.
- 5) With reference to US EPA 8082, Analysis was performed by GC/MS.
- 6) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 7) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 8) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 9)**As per NIOSH 9000 method. Analysis was performed by XRD.
- 10***As per EN14362-2:2003 & § 35 LMBG 82.02.Z (July 2004) -Extraction test on coloured textile - Detection of the use of certain azo colorants are accessible to reducing agents without extraction with the use of Gas Chromatographic Mass Spectrometry (GC-MS)/Thin Layer Chromatography (TLC) Technique.

Test Results

No.	Item	Unit	DL	A
1	Cadmium (Cd)*	mg/kg	2	N.D.
	Lead (Pb)*	mg/kg	2	N.D.
2	Mercury (Hg)*	mg/kg	2	N.D.
3	Hexavalent Chromium (Cr VI)	mg/kg	2	N.D.
4	Polybrominated biphenyls (PBBs)	---	---	---
	Monobromobiphenyl	mg/kg	5	N.D.
	Dibromobiphenyl	mg/kg	5	N.D.
	Tribromobiphenyl	mg/kg	5	N.D.
	Tetrabromobiphenyl	mg/kg	5	N.D.
	Pentabromobiphenyl	mg/kg	5	N.D.
	Hexabromobiphenyl	mg/kg	5	N.D.
	Heptabromobiphenyl	mg/kg	5	N.D.
	Octabromobiphenyl	mg/kg	5	N.D.
	Nonabromobiphenyl	mg/kg	5	N.D.
	Decabromobiphenyl	mg/kg	5	N.D.
	Polybrominated biphenyl ethers (PBDEs) (PBDEs)	---	---	---
	Monobromobiphenyl ether	mg/kg	5	N.D.

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SHCHEM 739093

Test Report

No. SH6060096/CHEM

Date: Jun. 2, 2006

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Dibromobiphenyl ether	mg/kg	5	N.D.
Tribromobiphenyl ether	mg/kg	5	N.D.
Tetrabromobiphenyl ether	mg/kg	5	N.D.
Pentabromobiphenyl ether	mg/kg	5	N.D.
Hexabromobiphenyl ether	mg/kg	5	N.D.
Heptabromobiphenyl ether	mg/kg	5	N.D.
Octabromobiphenyl ether	mg/kg	5	N.D.
Nonabromobiphenyl ether	mg/kg	5	N.D.
Decabromobiphenyl ether	mg/kg	5	N.D.

No.	Item	Unit	DL	A
5	PCBs(Polychlorinated Biphenyls) Content	---	---	---
	2,4,4'-Trichlorobiphenyl (PCB 28) CAS 7012-37-5	mg/kg	0.5	N.D.
	2,2',5,5'-Tetrachloro-biphenyl (PCB 52) CAS 35693-99-3	mg/kg	0.5	N.D.
	2,2',4,5,5'-Pentachloro-biphenyl (PCB 101) CAS 37680-73-2	mg/kg	0.5	N.D.
	2,3',4,4',5-Pentachlorobiphenyl (PCB 118) CAS 31508-00-6	mg/kg	0.5	N.D.
	2,2',3,4,4',5'-Hexachloro-biphenyl (PCB 138) CAS 35065-28-2	mg/kg	0.5	N.D.
	2,2',4,4',5,5'-Hexachloro-biphenyl (PCB 153) CAS 35065-27-1	mg/kg	0.5	N.D.
	2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180) CAS 35065-29-3	mg/kg	0.5	N.D.
6	Polychlorinated Naphthalene Content	---	---	---
	2-Chlorinated Naphthalene	mg/kg	5	N.D.
	1,4-Dichlorinated Naphthalene	mg/kg	5	N.D.
	1,5-Dichlorinated Naphthalene	mg/kg	5	N.D.
	1,2-Dichlorinated Naphthalene	mg/kg	5	N.D.
	1,8-Dichlorinated Naphthalene	mg/kg	5	N.D.
	1,2,3,4-Tetrachlorinated Naphthalene	mg/kg	5	N.D.
	Octa-chlorinated Naphthalene	mg/kg	5	N.D.
7	Short Chain Chlorinated Paraffin	mg/kg	30	N.D.
8	Mirex	mg/kg	0.5	N.D.

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Date: Jun. 2, 2006

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No.	Test Item(s)	Unit	DL	Result
	Asbestos			A
9**	Anthrophyllite(CAS NO.017068-78-9)	%	1	Negative
	Crocidolite(CAS NO.012001-28-4)	%	1	Negative
	Amosite(CAS NO.012172-73-5)	%	1	Negative
	Tremolite(CAS NO.014567-73-8)	%	1	Negative
	Chrysotile(CAS NO.012001-29-5)	%	1	Negative
	Actinolite(CAS NO.013768-00-8)	%	1	Negative

Note: Negative =<1.0%, Positive=>1.0%

10***To detection and determination of certain listed aromatic amines derived from Azo Colorants.

No.	Forbidden Amines Substances	CAS-No.	Result
			A
1.	4-aminodiphenyl/xenylamine/ Biphenyl-4-ylamine	92-67-1	N.D.
2.	Benzidin	92-87-5	N.D.
3.	4-chlor-o-toluidine	95-69-2	N.D.
4.	2-naphthylamine	91-59-8	N.D.
5.	o-aminoazotoluene/ 4-o-tolylazo-o-toluidine/ 4-amino-2',3'-dimethylazobenzene	97-56-3	N.D.
6.	2-amino-4-nitrotoluol/5-nitro-o-toluidine	99-55-8	N.D.
7.	p-chloranilin/4-chloroaniline	106-47-8	N.D.
8.	2,4-diaminoanisol/ 4-methoxy-m-phenylenediamine	615-05-4	N.D.
9.	4,4'-diaminodiphenylmethane/ 4,4'-methylenedianiline	101-77-9	N.D.
10.	3,3'-dichlorobenzidine/ 3,3'-dichlorobiphenyl-4,4'-ylenediamine	91-94-1	N.D.
11.	3,3'-dimethoxybenzidine/o-dianisidine	119-90-4	N.D.
12.	3,3'-dimethylbenzidine/4,4'-bi-o-Toluidine	119-93-7	N.D.
13.	3,3'-dimethyl-4,4'-diaminodiphenylmethane/ 4,4'-methylenedi-o-toluidine	838-88-0	N.D.
14.	p-cresidin/6-methoxy-m-toluidine	120-71-8	N.D.
15.	4,4'-methylen-bis-(2-chloro-aniline)/ 2,2'-dichloro-4,4'-methylene-dianiline	101-14-4	N.D.
16.	4,4'-oxydianiline	101-80-4	N.D.
17.	4,4'-thiodianiline	139-65-1	N.D.
18.	o-toluidine/2-aminotoluene	95-53-4	N.D.
19.	2,4-toluyldiamin/ 4-methyl-m-phenylenediamine	95-80-7	N.D.
20.	2,4,5-trimethylaniline	137-17-7	N.D.
21.	4-aminoazobenzene ◆	60-09-3	N.D.
22.	o-anisidine/ 2-methoxyaniline	90-04-0	N.D.
23.	2,4-Xylidin	95-68-1	N.D.
24.	2,6-Xylidin	87-62-7	N.D.

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Overall Rating

Relevant Requirement (2002/61/EC)

No relevant amine exceeding 30 ppm (mg/kg).

Note: N.D. = not detectable

Detection Limit = 5 ppm (mg/kg)

* Remark: For textiles no relevant amine exceeding 30ppm (mg/kg) is required, the test method is a applicable for textile and the result is only for client information.

• the En 14362-2 method will enable further cleavage of 4-aminoazobenzene to non-forbidden amines: aniline and 1-4-phenylenediamine, therefore, the test method of § 35 LMBG 82.02.Z was employed to verify the presence of 4-aminoazobenzene

Forbidden Arylamines for Azo Dye Regulations

No, 1-22-Commission of the European Communities: Directive 2002/61/EC adopted by the Council on 19 July 2002

No, 1-20, 22-24- Client requirement

Sample Appearance Description(Photo see appendix):

A. White plastic bar

Note : 1mg/kg=1ppm=0.0001%

DL= Detection Limit

N.D. = Not detected

Not Detected is reported when the reading is less than detection limit value.

Negative = Undetectable / Positive = Detectable.

*Only for reference.

**These tests were subcontracted to SGS Taiwan Ltd (Date of testing: 2006/05/24-06/02).

***These tests were subcontracted to SGS-SHSL TEXTLIE LAB (Date of testing: 2006/05/22-06/02).

*** End of Report ***

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SHCHEM 739090



Test Report

No.: GZ0612183017/CHEM

Date: DEC 15, 2006

Page 1 of 3

SHENZHEN CITY LIANFENG METAL PLASTIC PRODUCE CO., LTD. 1129 WORKSHOPS
LIULIAN LAOWEI VILLAGE INDUSTRIAL AREA, PINGDI TOWN, LONGGANG DISTRICT, SHENZHEN

Report on the submitted sample said to be 镀金产品

SGS Ref No. : GZ10173051EC-3.3

Sample Receiving Date : DEC 11, 2006

Testing Period : DEC 11, 2006 TO DEC 15, 2006

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

Test Method : With reference to IEC 62321 Ed.1 111/54/CDV
Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products
(1) Determination of Cadmium by ICP.
(2) Determination of Lead by ICP.
(3) Determination of Mercury by ICP.
(4) Determination of Hexavalent Chromium by Colorimetric Method.

Test Results : Please refer to next page.

Conclusion : Based on the performed tests on submitted sample(s), the results **comply with** the RoHS Directive 2002/95/EC and its subsequent amendments.

Signed for and on behalf of
SGS-CSTC Ltd.

Jiang YongPing, Terry
Sr. Engineer

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Test Report

No.: GZ0612183017/CHEM

Date: DEC 15, 2006

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Test results by chemical method (Unit: mg/kg)

Test Item(s):	Method (refer to)	No.1	MDL	RoHS Limit
Cadmium(Cd)	(1)	N.D.	2	100
Lead (Pb)	(2)	N.D.	2	1000
Mercury (Hg)	(3)	N.D.	2	1000
Hexavalent Chromium (CrVI) by Spot test	(4)	Negative	See Note 4	#

Test Part Description:

No.1 Golden plated metal

Note : 1. mg/kg = ppm

2. N.D. = Not Detected (< MDL)

3. MDL = Method Detection Limit

4. 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.)

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.

5. # = Positive indicates the presence of CrVI on the tested areas and result be regarded as conflict with RoHS requirement.

Negative indicates the absence of CrVI on the tested areas and result be regarded as no conflict with RoHS requirement.

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Test Report

No.: GZ0612183017/CHEM

Date: DEC 15, 2006

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Sample photo :



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Test Report

NO.: A07012902F2530

Date: Jan 29, 2007

Page 1 of 4

Customer: Dongguan City Shengxin Electronic Co., Ltd**Address:** New City Industrial Area, Henli, Tungkuan Kwangtung, China**Report on the submitted sample said to be****Sample name:** Silica gel ring**Model:** /**Item/Lot No.:** /**Material:** /**Buyer:** /**Supplier:** Zhuangyi**Manufacturer:** /**Sample received date:** Jan 25, 2007**Testing period:** From Jan 25, 2007 to Jan 29, 2007

Testing Requested

As specified by client, to determine the Lead, Cadmium, Mercury, Hexavalent Chromium, PBB & PBDE content in the submitted sample in accordance with Directive 2002/95/EC (RoHS).

Testing method:

With reference to IEC 62321, Ed. 111/54CDV

Testing Item	Pretreatment method	Measuring instrument	Report Limit
Lead (Pb)	IEC 62321, section 11/13	ICP-OES	2mg/kg
Cadmium (Cd)	IEC 62321, section 11/13	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321, section 10	CV-AAS	2 mg/kg
Chromium (Cr VI)	IEC 62321, section 9	UV-VIS	2 mg/kg
PBBs/ PBDEs	IEC 62321, section 7	GC-MS	5 mg/kg

Conclusion:

-When tested as specified the submitted sample complied with the requirements of commission Decision of 18 Aug 2005 amending Directive 2002/95/EC notified under document 2005/618/EC

*****FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S)*****

Signed for AOV Ltd.

Written by

Approved by

Inspected by

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Test Report

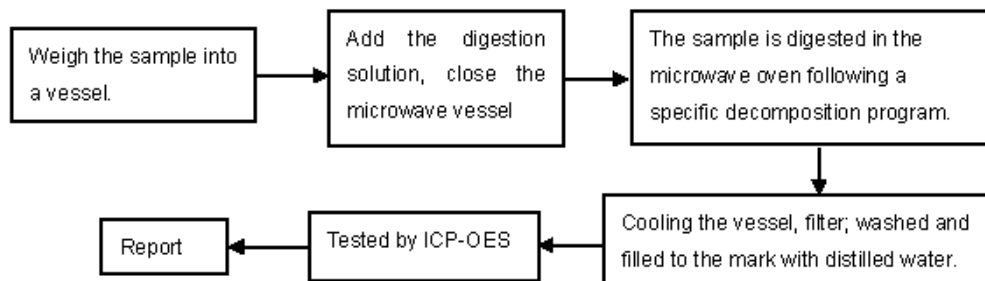
NO.: A07012902F2530

Date: Jan 29, 2007

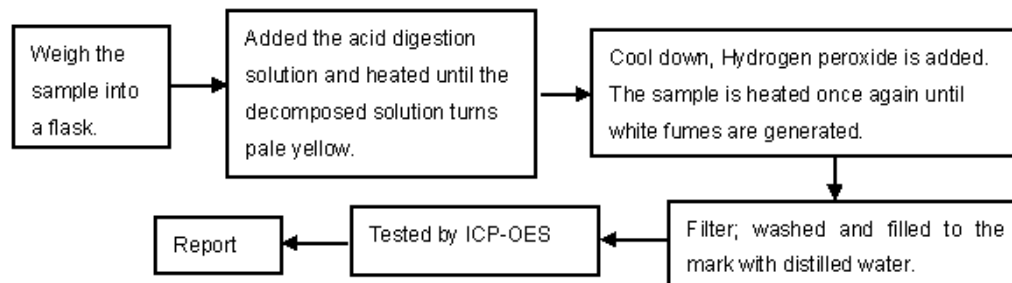
Page 2 of 4

Test Flow:

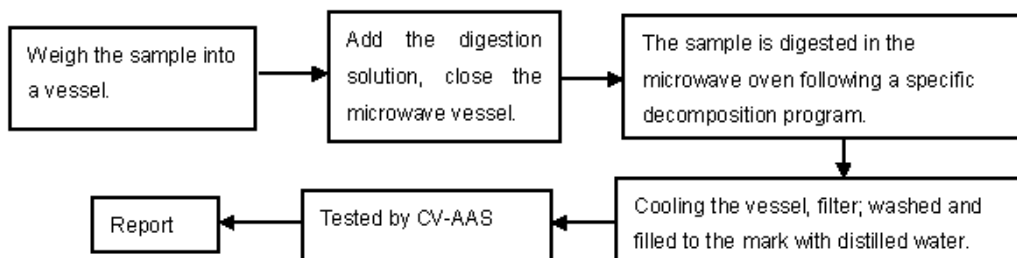
1. To Determine Lead Content:



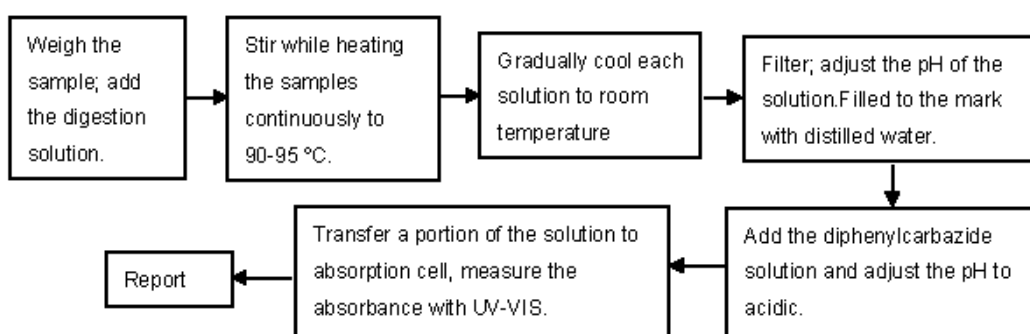
2. To Determine Cadmium Content:



3. To Determine Mercury Content:



4. To Determine Hexavalent Chromium Content:



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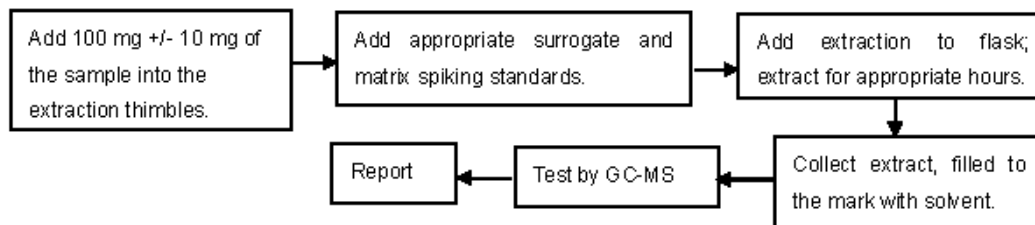
Test Report

NO.: A07012902F2530

Date: Jan 29, 2007

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5. To Determine PBBs/PBDEs Content:



Test Results:

Item	Unit	Acceptable Limit	A
Lead (Pb)	mg/kg	1000	N.D.
Cadmium (Cd)	mg/kg	100	N.D.
Mercury (Hg)	mg/kg	1000	N.D.
Chromium (CrVI)	mg/kg	1000	N.D.

Flame Retardants	Unit	Acceptable Limit	A
PBBs	mg/kg	1000	--
MonoBB	mg/kg	/	N.D.
DiBB	mg/kg	/	N.D.
TriBB	mg/kg	/	N.D.
TetraBB	mg/kg	/	N.D.
PentaBB	mg/kg	/	N.D.
HexaBB	mg/kg	/	N.D.
HeptaBB	mg/kg	/	N.D.
OctaBB	mg/kg	/	N.D.
NonaBB	mg/kg	/	N.D.
DecaBB	mg/kg	/	N.D.
PBDEs	mg/kg	1000	--
MonoBDE	mg/kg	/	N.D.
DiBDE	mg/kg	/	N.D.
TriBDE	mg/kg	/	N.D.
TetraBDE	mg/kg	/	N.D.
PentaBDE	mg/kg	/	N.D.
HexaBDE	mg/kg	/	N.D.
HeptaBDE	mg/kg	/	N.D.
OctaBDE	mg/kg	/	N.D.
NonaBDE	mg/kg	/	N.D.
DecaBDE	mg/kg	/	N.D.*

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**Test Report**

NO.: A07012902F2530

Date: Jan 29, 2007

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Specimen Description:

A: Red silica gel ring

Note:

- Specimens, which requested to determine Cadmium, Mercury and Lead Content, have been dissolved completely.
- mg/kg=ppm
- N.D.=not detected(<Report Limit)
- (Deca BDE) In polymeric applications is exempted by commission Decision of 13 Oct 2005 amending directive 2002/95/EC notified under document 2005/717/EC
- Photo is included

Photograph of Sample

Silica gel ring

End of Report

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Test Report

No. CANEC0700690204

Date: 15 Nov 2007

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SHEN ZHEN CITY LIAN FENG METAL PLASTIC PRODUCE CO.,LTD 1129 WORKSHOPS
LIULIAN LAOWEI VILLAGE INDUSTRIAL AREA PINGDI TOWN LONGGANG DISTRICT SHENZHEN
CHINA

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

镀光锡产品

SGS Job No. : 10691293 - GZ
SGS Internal Reference No. : 5.4
Date of Sample Received : 12 Nov 2007
Testing Period : 12 Nov 2007 - 14 Nov 2007

Test Requested : To determine the Cadmium, Lead, Mercury & Hexavalent Chromium content in the submitted sample.

Test Method : With reference to IEC 62321 Ed.1 111/54/CDV Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products.
(1) Determination of Cadmium by ICP.
Determination of Lead by ICP.
Determination of Mercury by ICP.
(2) Determination of Hexavalent Chromium by Colorimetric Method.

Test Results : Please refer to next page(s).

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

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Test Report

No. CANEC0700690204

Date: 15 Nov 2007

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Test results by chemical method (Unit : mg/kg)

Test Item(s)	Method (Refer to)	No.1	MDL
Cadmium(Cd)	(1)	N.D.	2
Lead (Pb)	(1)	N.D.	2
Mercury (Hg)	(1)	N.D.	2
Hexavalent Chromium (CrVI) by boiling water extraction	(2)	Negative	See Note 4

Note:

1. mg/kg = ppm

2. N.D. = Not Detected (< MDL)

3. MDL = Method Detection Limit

4. 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.)

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.

Test Part Description

No. 1 Silvery plated metal

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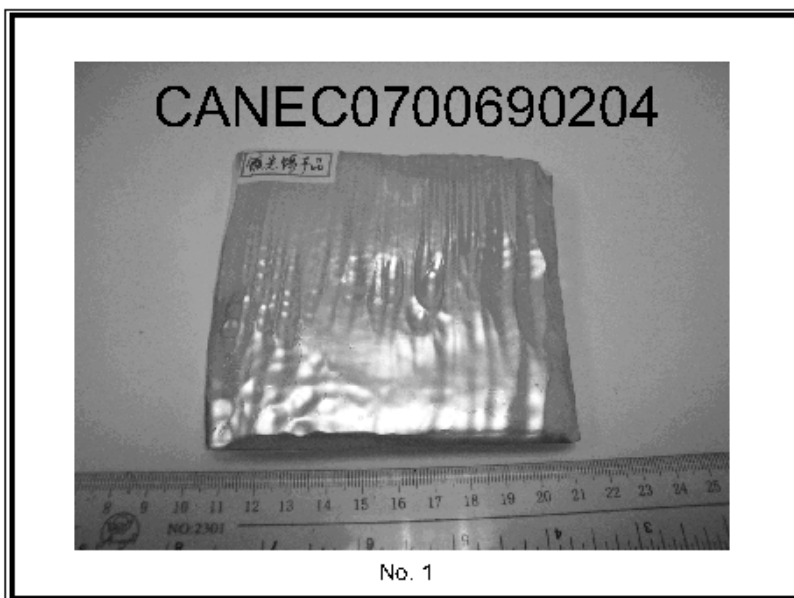
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Sample photo:



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Material Data Sheet

RG-178 Coaxial Cable

SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

STYLE : 105°C 30V
RG-178B/U

SIZE: 7/0.102 SCCS

RECOGNIZED: UL 1979



WONDERFUL HI-TECH CO.,LTD

OFFICE : 72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN, TAIWAN

TEL : (02)22988033
FAX : (02)22988031-2

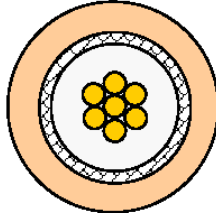
FACTORY : 17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

TEL : (03)4527777
FAX : (03)4517214



WONDERFUL HI-TECH CO., LTD

SPECIFICATION

STYLE	105°C 30V UL1979	DOCUMENT NO : A30178B001
SIZE	RG-178B/U	ESTABLISHED DATE: 2004/03/22
STANDARD : MIL-C-17		
Conductor	Size	AWG 30
	Material	---- Silver-Coated Copper Clad Steel
	Conductors No.	---- 7
	Conductors Size	mm 0.102
	O.D.	mm 0.30
Insulation	Average Thickness	mm 0.28
	Diameter	mm 0.86 ±0.03
	Material	---- FEP
	Color	---- Clear
Braid	Material	---- Silver-Coated Copper
	Construction	mm 16 / 3 / 0.10
	Coverage	% 95
Jacket	Average Thickness	mm 0.25
	Diameter	mm 1.80 ±0.05
	Material	---- FEP
	Color	---- Brown
Marking		
Drawing		

AK001/210X297/1.0

PAGE : 1

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG



WONDERFUL HI-TECH CO., LTD. SPECIFICATION

Electrical & Physical Properties							
Item				RG-178B/U			
Rating Temp Voltage				105°C 30V			
Conductor Resistance				838 OHM/KM/20°C MAX.			
Insulation Resistance				3000 MEGA OHM/KM MIN.			
Dielectric Strength				AC 500V/Minute			
Spark Test				2.5 KV			
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)				
		Elongation	200% MIN.				
	Aged	Tensile Strength	UNAGED MIN 75%(168HRS×232°C)				
		Elongation	UNAGED MIN 75%(168HRS×232°C)				
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)				
		Elongation	200% MIN.				
	Aged	Tensile Strength	UNAGED MIN.75%(168HRS×232°C)				
		Elongation	UNAGED MIN.75%(168HRS×232°C)				
Nom. Impedance				50 Ohms			
Nom. Capacitance				95.8 pF/m			
Nom. Vel. of Prop.				69.5%			
VSWR (0 – 6 GHZ)				UNDER 1.3			
Attenuation (dB/100m)	100MHz	1GHz	1.8GHz	2.4GHz	5.2GHz	6GHz	
	46	155	295	340	505	550	

AK001/210X297/1.0

PAGE : 2

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG



Survey Report

WONDERFUL HI-TECH CO., LTD.
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND, PARK,
TAOYUAN TAIWAN, R. O. C.

Report No. : CS/2006/60408
Date : 2006/06/21
Page : 1 of 5

The following merchandise was (were) submitted and identified by the client as :

Type of Product : RF COAXIAL CABLE
Style/Item No : RG-316/U, RG-179/U, RG-178B/U, RF405A

=====

Test Result : - Please see the next page -

* This report is combined with reports of CE/2006/64545 & CE/2006/10628 *


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

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Report No. : CS/2006/60408

Date : 2006/06/21

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Test Result

PART NAME NO.1 : ORANGE PLASTIC JACKET (CE/2006/64545)
PART NAME NO.2 : SILVER COLORED METAL WIRE (CE/2006/10628 NO.1)
PART NAME NO.3 : TRANSPARENT PLASTIC INSULATION (CE/2006/10628 NO.2)
PART NAME NO.4 : SILVER COLORED METAL WIRE (WEAVED) (CE/2006/10628 NO.3)

Test Item (s):	Unit	Method	MDL	Result			
				No.1	No.2	No.3	No.4
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	---	N.D.	---
Dibromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Tribromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Tetrabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Pentabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Hexabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Heptabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Octabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Nonabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Decabromobiphenyl	%		0.0005	N.D.	---	N.D.	---
Total PBBs (Polybrominated biphenyls)/Sum of above	%		-	N.D.	---	N.D.	---
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	---	N.D.	---
Dibromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Tribromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Tetrabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Pentabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Hexabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Heptabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Octabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Nonabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Decabromobiphenyl ether	%		0.0005	N.D.	---	N.D.	---
Total PBDEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.	---	N.D.	---
Total of Mono to Nona-brominated biphenyl ether. (Note 4)	%		-	N.D.	---	N.D.	---

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Report No. : CS/2006/60408

Date : 2006/06/21

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Test Item (s):	Unit	Method	MDL	Result			
				No.1	No.2	No.3	No.4
Chromium VI (Cr+6)	ppm	UV-VIS(US EPA 7196A) after reference to US EPA 3060A.	2	N.D.	N.D.	N.D.	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.	2	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3050B or other acid digestion.	2	N.D.	N.D.	N.D.	N.D.

- NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by
Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified
under document 2005/717/EC.
(5) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs.
(6) " - " = Not Regulation
(7) " --- " = Not Applicable

Survey Report

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TAOYUAN TAIWAN, R. O. C.

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PART NAME NO.1:



PART NAME NO.2:



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PART NAME NO.3:



PART NAME NO.4:



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Housing Material Data Sheet

• Housing(外套)- TPU

TPU 熱塑性聚胺酯

BAYER
拜耳

Desmopan®

Items 項目	Test Methods 試驗方法		Unit 單位	192	385	588	KU 2-8600
	DIN	ISO		8092	8085		
Mechanical Properties 機械特性							
Tensile Yield Strength 拉伸屈服強度	53504	37	MPa	45	40	30	40
Elongation at Break 延伸率	53504	37	%	450	450	500	500
Compression Set 壓縮變形 70 hr st 22°C	53517	-	%	25	30	30	25
	53517	-	%	60	55	65	42
Physical Properties 物理特性							
Shore A Hardness 硬度	53505	868	-	94	85	88	82
Shire D Hardness 硬度	53505	868	-	42	32	33	31
Modulus of Elasticity	53455	-	MPa	45	15	30	12
Abrasion Resistance(Loss)	53516	4649	mm³	30	30	60	20
Rebound Resilience	53512	4662	%	30	42	36	45
Tear Propagation Resistance	53515	-	kN/m	90	70	55	50
Density 密度	53479	1183	g/cm³	1.23	1.20	1.15	1.11
Electrical Properties 電氣特性							
Dielectric Strength 耐電率 (50Hz,0.5kV/s) 1. Dry 2. 4 days at 80% r.h. 3. 24 h immersion in water	EC 243. VDE 0303/part 2		kV/mm				
	95mm Ø-1mm			14.8	17.5	20.2	NA
				13.7	17.6	20.0	NA
				13.9	17.7	20.1	NA
Surface Resistivity 1,000V, 1-minute Value 1. Dry 2. 2.4 days at 80% r.h. 3. 24 h immersion in water	IEC 93. VDE 0303/part 3		Ohm				
	Standard test piece			1•10 ¹²	5•10 ¹¹	6•10 ¹¹	NA
				2•10 ¹¹	8•10 ¹¹	7•10 ¹⁰	NA
				2•10 ¹¹	5•10 ¹¹	7•10 ¹⁰	NA
Insulation Between Plug Electrodes 1,000V, 1-minute Value 1. Dry 2. 4 days at 80% r.h. 3. 24 h immersion in water	IEC 167. VDE 0303/part 3		Ohm				
	Standard test piece			5•10 ¹²	4•10 ¹¹	1•10 ¹²	NA
				1•10 ¹²	7•10 ¹⁰	1•10 ¹¹	NA
				2•10 ¹¹	7•10 ¹⁰	1•10 ¹⁰	NA
Volume Resistivity 1,000V, 1-minute Value 1. Dry 2. 4 days at 80% r.h. 3. 24 h immersion in water	IEC 93. VDE 0303/part 3		Ohm-cm				
	95mm Ø-1mm			5•10 ¹²	8•10 ¹¹	3•10 ¹²	NA
				7•10 ¹²	2•10 ¹¹	2•10 ¹¹	NA
				2•10 ¹¹	1•10 ¹¹	8•10 ¹⁰	NA
Dielectric Constant 1. At 50Hz 2. At 1kHz 3. At 1MHz 4. At 1GHz	IEC 250. VDE 0303/part4			6.6	6.5	6.3	NA
				6.3	6.4	6.1	NA
	95mm and 50mmØ-1mm			5.1	5.6	5.0	NA
				3.6	3.8	3.4	NA
Dissipation factor tan 1. At 50Hz 2. At 1kHz 3. At 1MHz 4. At 1GHz	IEC 250. VDE 0303/part 4			0.025	0.029	0.024	NA
				0.034	0.018	0.025	NA
	95mm and 50mmØ-1mm			0.075	0.060	0.084	NA
				0.022	0.032	0.024	NA
Comparative Tracking Index(CTI) (test solution A)	IEC 112. VDE 0303/part 1 20mm•15mm•4mm		Grading	600	600	600	NA
Raw Material Groups 原料分類				Ester		Special Ether	Ether

UL File No.:E41613(M)

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011-7



SGS

Test Report

NAN YA PLASTICS CORPORATION
55, WEIWANG ST., SHU LIN, TAIPEI, TAIWAN, R.O.C.

Report No. : CE/2005/C8115
Date : 2006/01/05
Page : 1 of 6

The following merchandise was (were) submitted and identified by the client as :

Type of Product : TPU
Style/Item No : TI95AA
Sample Received : 2005/12/29
Testing Date : 2005/12/29 TO 2006/01/05

Conclusion

: The test results of Pb, Cd, Hg, Cr+6, PBB and PBDE for the submitted sample comply with the requirements of RoHS (2002/95/EC).


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

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Test Report

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Report No. : CE/2005/C8115
Date : 2006/01/05
Page : 2 of 6

Test Result

PART NAME NO.1 : TRANSPARENT PLASTIC PELLETS

PASS

Test Item (s):	Unit	Method	MDL	Result No.1	Limit of ROHS
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	-
Dibromobiphenyl	%		0.0005	N.D.	-
Tribromobiphenyl	%		0.0005	N.D.	-
Tetrabromobiphenyl	%		0.0005	N.D.	-
Pentabromobiphenyl	%		0.0005	N.D.	-
Hexabromobiphenyl	%		0.0005	N.D.	-
Heptabromobiphenyl	%		0.0005	N.D.	-
Octabromobiphenyl	%		0.0005	N.D.	-
Nonabromobiphenyl	%		0.0005	N.D.	-
Decabromobiphenyl	%		0.0005	N.D.	-
Total PBBs(Polybrominated biphenyls)/Sum of above	%		-	N.D.	0.1
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	-
Dibromobiphenyl ether	%		0.0005	N.D.	-
Tribromobiphenyl ether	%		0.0005	N.D.	-
Tetrabromobiphenyl ether	%		0.0005	N.D.	-
Pentabromobiphenyl ether	%		0.0005	N.D.	-
Hexabromobiphenyl ether	%		0.0005	N.D.	-
Heptabromobiphenyl ether	%		0.0005	N.D.	-
Octabromobiphenyl ether	%		0.0005	N.D.	-
Nonabromobiphenyl ether	%		0.0005	N.D.	-
Decabromobiphenyl ether	%		0.0005	N.D.	-
Total PBDEs(PBDEs)(Polybromin ated biphenyl ethers)/Sum of above	%		-	N.D.	-
Total of Mono to Nona- brominated biphenyl ether. (Note 5)	%		-	N.D.	0.1

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Test Report

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Report No. : CE/2005/C8115
Date : 2006/01/05
Page : 3 of 6

PASS

Test Item (s):	Unit	Method	MDL	Result	Limit of ROHS
				No.1	
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.	1000
Cadmium (Cd)	ppm	ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.	2	N.D.	100
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.	1000
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3050B or other acid digestion.	2	N.D.	1000

- NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) " - " = Not Regulation
(5) " --- " = Not Applicable
(6) Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified under document 2005/717/EC.
(7) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs.

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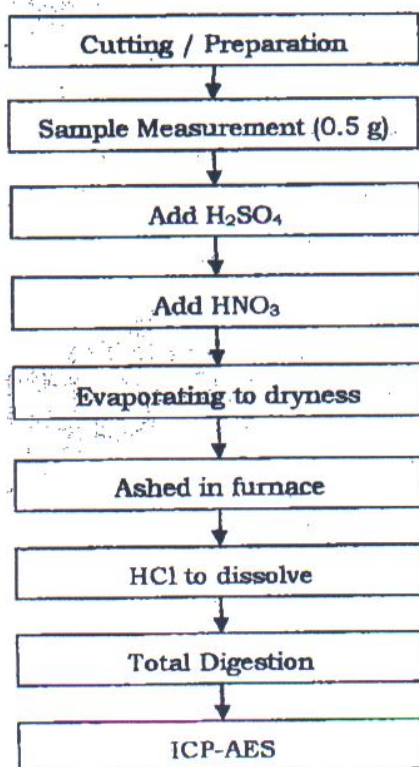
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Report No. : CE/2005/C8115
Date : 2006/01/05
Page : 4 of 6

- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) Name of the person who made measurement: Anren Lee
- 3) Name of the person in charge of measurement: Daniel Yeh

Flow Chart of Digestion for Plastic -Wet Decomposition for Pb (without residue)



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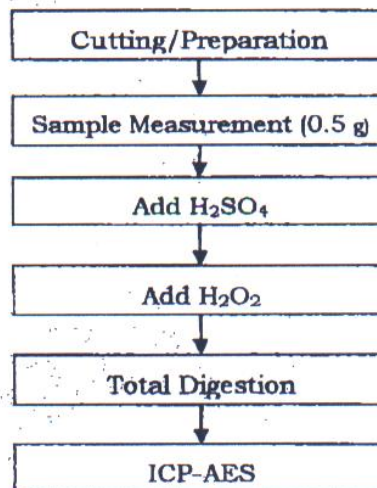
Test Report

NAN YA PLASTICS CORPORATION
55, WEIWANG ST., SHU LIN, TAIPEI, TAIWAN, R.O.C.

Report No. : CE/2005/C8115
Date : 2006/01/05
Page : 5 of 6

- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) Name of the person who made measurement: Anren Lee
- 3) Name of the person in charge of measurement: Daniel Yeh

Flow Chart of Digestion for Plastic - EN1122 for Cd (without residue)



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TW2733338



Test Report

NAN YA PLASTICS CORPORATION
55, WEIWANG ST., SHU LIN, TAIPEI, TAIWAN, R.O.C.

Report No. : CE/2005/C8115
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• Hinge(上座/下座)- PC +ALLOY

SHINBLEND®	SHINKONG SYNTHETIC FIBERS CORPORATION
ALLOY	新光合成纖維股份有限公司
ENGINEERING PLASTIC DIVISION	8th Fl., 123, Sec.2, Nanking East Road, Taipei, Taiwan
	Tel: 886-2-2507-0131, 886-2-2507-1233 (30 Lines), 886-3-4932131-1730
	Fax: 886-2-2506-8047, 886-3-491-5563

Technical Data

		SHINBLEND® A724NA			
		High Impact Grade / 超韌級 AD4011			
		Unit	Test Method		Values
Mechanical properties		機械性質			
Izod Impact(Notched) 23°C	衝擊強度	Kg-cm/cm	ASTM	D256	85
-20°C	衝擊強度	Kg-cm/cm	ASTM	D256	70
-40°C	衝擊強度	Kg-cm/cm	ASTM	D256	65
Tensile Strength	拉伸強度	Kg/cm ²	ASTM	D638	540
Elongation	拉伸率	%	ASTM	D638	100
Flexural Strength	彎曲強度	Kg/cm ²	ASTM	D790	800
Flexural Modulus	彎曲模數	Kg/cm ²	ASTM	D790	20000
Thermal properties		熱性質			
Heat Deflection Temperature	熱變形溫度		ASTM	D648	
66psi		°C			-
264psi		°C			100
Flammability	防火性	-	UL94		-
Melting Point	熔點	°C	DSC		223
Electrical properties		電氣性質			
Dielectric Strength	介電強度	KV/MM	ASTM	D149	-
Dielectric Constant	介電常數	...	ASTM	D150	-
Volume Resistivity	體積電阻	Ω-CM	ASTM	D257	-
Other properties		其它性質			
Specific Gravity	比重	-	ASTM	D792	1.19
Water Absorption	吸水率	%	ASTM	D570	0.14
Mold Shrinkage	成形收縮率		ASTM	D955	
Flow	流動方向	%			0.4~0.6
Cross Flow	垂直方向	%			0.5~0.7

"Nothing in this information shall be construed as a recommendation for any use that may infringe on any patent right or as an endorsement of any material supplied by Shinkong Synthetic Fibers Corporation. We do not guarantee the applicability or the accuracy of this information or the performance of our products in any specific situation. We recommend each user of our products make its own tests to determine if the material is suitable for a particular use. The data show here are within the normal range of product properties, but they are NOT SPECIFICATION LIMITS. Additives of any kind alter some or all of the properties."

2002/6



Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION
8F., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401

Date : 2006/01/19


Page : 1 of 5

The following merchandise was (were) submitted and identified by the client as :

Type of Product : THERMOPLASTIC POLYESTER RESIN
Style/Item No : A724NA
Manufacturer/Vendor : SHINKONG SYNTHETIC FIBERS CORPORATION
Sample Received : 2006/01/12
Testing Date : 2006/01/12 TO 2006/01/19

=====

Test Result : - Please see the next page -


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

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Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION
8F., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401

Date : 2006/01/19

Page : 2 of 5

Test Result

PART NAME NO.1 : WHITE PLASTIC PELLETS

Test Item (s):	Unit	Method	MDL	Result
				No.1
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Dibromobiphenyl	%		0.0005	N.D.
Tribromobiphenyl	%		0.0005	N.D.
Tetrabromobiphenyl	%		0.0005	N.D.
Pentabromobiphenyl	%		0.0005	N.D.
Hexabromobiphenyl	%		0.0005	N.D.
Heptabromobiphenyl	%		0.0005	N.D.
Octabromobiphenyl	%		0.0005	N.D.
Nonabromobiphenyl	%		0.0005	N.D.
Decabromobiphenyl	%		0.0005	N.D.
Total PBBs (Polybrominated biphenyls)/Sum of above	%		-	N.D.
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Dibromobiphenyl ether	%		0.0005	N.D.
Tribromobiphenyl ether	%		0.0005	N.D.
Tetrabromobiphenyl ether	%		0.0005	N.D.
Pentabromobiphenyl ether	%		0.0005	N.D.
Hexabromobiphenyl ether	%		0.0005	N.D.
Heptabromobiphenyl ether	%		0.0005	N.D.
Octabromobiphenyl ether	%		0.0005	N.D.
Nonabromobiphenyl ether	%		0.0005	N.D.
Decabromobiphenyl ether	%		0.0005	N.D.
Total PBDEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.
Total of Mono to Nona-brominated biphenyl ether. (Note 4)	%		-	N.D.

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Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION
8F., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401

Date : 2006/01/19

Page : 3 of 5

Test Item (s):	Unit	Method	MDL	Result
				No.1
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.

NOTE: (1) N.D. = Not detected (<MDL)

(2) ppm = mg/kg

(3) MDL = Method Detection Limit

(4) Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified under document 2005/717/EC.

(5) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs.

(6) " - " = Not Regulation

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Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION
8F., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

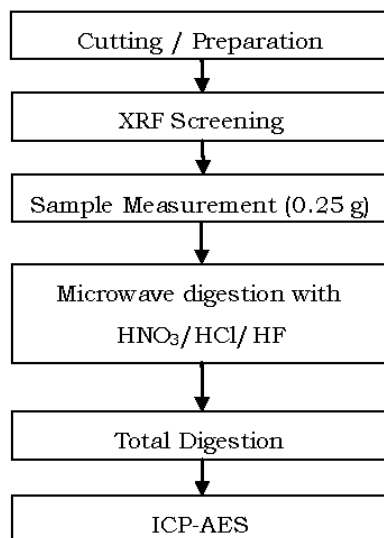
Report No. : CE/2006/13401

Date : 2006/01/19

Page : 4 of 5

- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) Name of the person who made measurement: Anren Lee
- 3) Name of the person in charge of measurement: Daniel Yeh

Flow Chart of Digestion for Plastic -EPA3052 for Pb、Cd (without residue)



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Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION
8F., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401
Date : 2006/01/19
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Material Data Sheet

Heat Shrink Tube



Survey Report

SUMI-PAC CORPORATION

NO. 15, INDUSTRIAL 5TH ROAD, HSIN-CHU ENLARGED
INDUSTRIAL PARK, HSIN-CHU HSIEN, TAIWAN, R. O. C.

Report No. : CS/2006/60511

Date : 2006/05/19

Page : 1 of 5


The following merchandise was (were) submitted and identified by the client as :

Type of Product : HEAT SHRINKABLE TUBINGS
Style/Item No : SUMITUBE F34 BLACK
Manufacturer/Vendor : SUMI-PAC CO.

=====

Test Result : - Please see the next page -

* This report is combined with reports of CE/2006/53522 & CE/2006/53534 *


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

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Survey Report

SUMI-PAC CORPORATION

NO. 15, INDUSTRIAL 5TH ROAD, HSIN-CHU ENLARGED
INDUSTRIAL PARK, HSIN-CHU HSIEN, TAIWAN, R. O. C.

Report No. : CS/2006/60511

Date : 2006/05/19

Page : 2 of 5

Test Result

PART NAME NO.1 : BLACK PLASTIC JACKET WITH WHITE PRINTED
(CE/2006/53522 + CE/2006/53534)

Test Item (s):	Unit	Method	MDL	Result
				No.1
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Dibromobiphenyl	%		0.0005	N.D.
Tribromobiphenyl	%		0.0005	N.D.
Tetrabromobiphenyl	%		0.0005	N.D.
Pentabromobiphenyl	%		0.0005	N.D.
Hexabromobiphenyl	%		0.0005	N.D.
Heptabromobiphenyl	%		0.0005	N.D.
Octabromobiphenyl	%		0.0005	N.D.
Nonabromobiphenyl	%		0.0005	N.D.
Decabromobiphenyl	%		0.0005	N.D.
Total PBBs (Polybrominated biphenyls)/Sum of above	%		-	N.D.
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Dibromobiphenyl ether	%		0.0005	N.D.
Tribromobiphenyl ether	%		0.0005	N.D.
Tetrabromobiphenyl ether	%		0.0005	N.D.
Pentabromobiphenyl ether	%		0.0005	N.D.
Hexabromobiphenyl ether	%		0.0005	N.D.
Heptabromobiphenyl ether	%		0.0005	N.D.
Octabromobiphenyl ether	%		0.0005	N.D.
Nonabromobiphenyl ether	%		0.0005	N.D.
Decabromobiphenyl ether	%		0.0005	N.D.
Total PBBEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.
Total of Mono to Nona-brominated biphenyl ether. (Note 4)	%		-	N.D.

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Survey Report

SUMI-PAC CORPORATION

NO. 15, INDUSTRIAL 5TH ROAD, HSIN-CHU ENLARGED
INDUSTRIAL PARK, HSIN-CHU HSIEN, TAIWAN, R. O. C.

Report No. : CS/2006/60511

Date : 2006/05/19

Page : 3 of 5

Test Item (s):	Unit	Method	MDL	Result
				No.1
Chromium VI (Cr+6)	ppm	UV-VIS(US EPA 7196A) after reference to US EPA 3060A.	2	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.	2	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3050B or other acid digestion.	2	N.D.

NOTE: (1) N.D. = Not detected (<MDL)

(2) ppm = mg/kg

(3) MDL = Method Detection Limit

(4) Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by
Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified
under document 2005/717/EC.

(5) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs.

(6) " - " = Not Regulation

Survey Report

SUMI-PAC CORPORATION

NO. 15, INDUSTRIAL 5TH ROAD, HSIN-CHU ENLARGED
INDUSTRIAL PARK, HSIN-CHU HSIEN, TAIWAN, R. O. C.

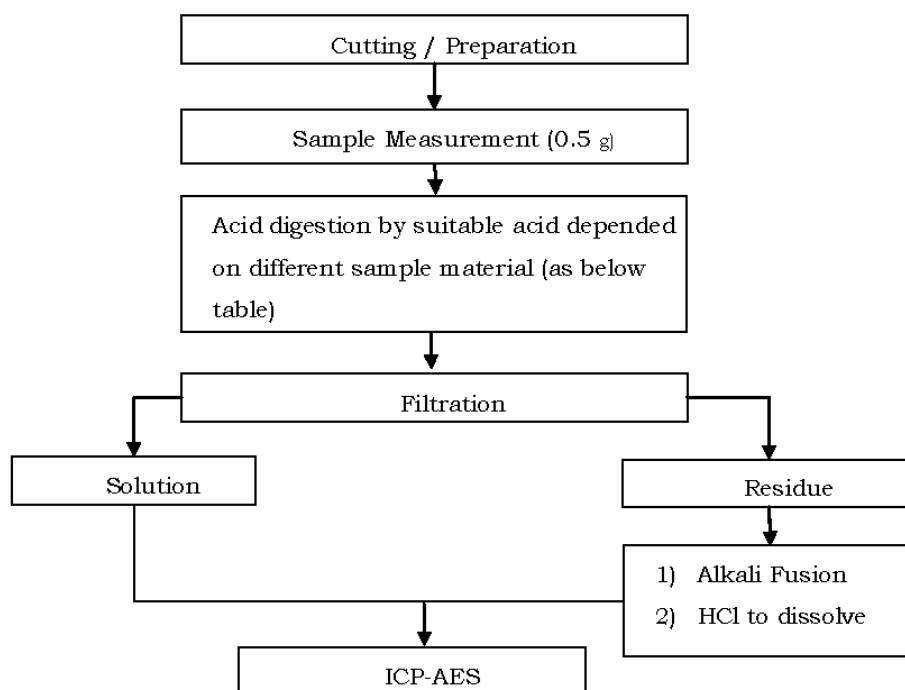
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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) Name of the person who made measurement: Anren Lee
- 3) Name of the person in charge of measurement: Daniel Yeh

Method 1: Flow Chart of Digestion for Cd · Pb analysis



Steel, copper, aluminum, solder	Agua regia, HNO ₃ , HCl, HF, H ₂ O ₂
Glass	HNO ₃ /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO ₃
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion

Survey Report

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NO. 15, INDUSTRIAL 5TH ROAD, HSIN-CHU ENLARGED
INDUSTRIAL PARK, HSIN-CHU HSIEN, TAIWAN, R. O. C.

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