

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

德勝科技股份有限公司

日 期
DATE

2006 / 05 / 10

品 名
DESCRIPTION

SWIVEL TYPE , 5dBi MONOPOLE
ANTENNA SMA (M) (BLACK)

客 戶 料 號
CUSTOMER P/N

成 品 編 號
Part NO.

W5W1603A1



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.

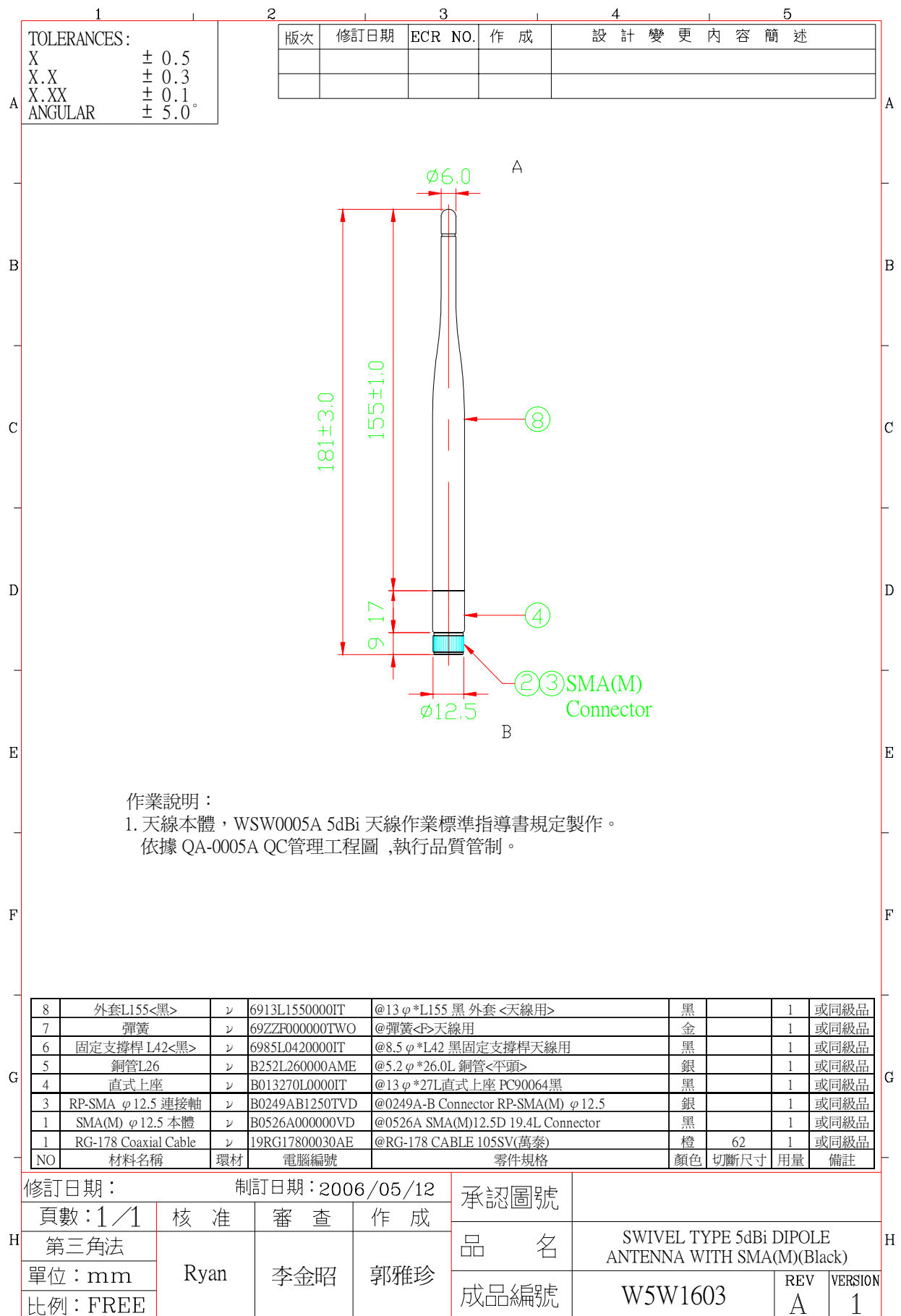
TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

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SPECIFICATION

- | | |
|-------------------------------|--|
| 1. Description | : 2.45GHz Swivel Type Antenna
With SMA(M) |
| 2. Customer | : 德勝科技股份有限公司 |
| 3. Model No. | : WSS007 |
| 4. Part No. | : W5W1603A1 |
| 5. Standard | : IEEE 802.11b/g Wireless LAN |
| 6. Antenna Profile | : 181 mm (see Drawing) |
| 7. Color | : Black |
| 8. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5GHz |
| Antenna Type | : Monopole |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Antenna Gain | : 5.0 dBi Typical |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max. |
| 9. Mechanical Characteristics | |
| Swivel | : 90 degrees |
| Connector | : SMA(M) |
| Core | : N/A |
| 10. Raw Material | |
| Coaxial Cable | : MIL-C-17 RG-178 B/U |
| Housing | : TPU |
| Hinge | : PC+ALLOY |



萬旭電業股份有限公司 56 文件編號：FMT-0513-D7



测试报告

编号: GZSCR050638415/LP

日期: 2005年6月20日 页码 1 of 1

佛山市南海信兴铜业有限公司
广东省佛山市南海区大沥奇槎铺前工业区

本报告是基于所提供的名称为“C3604 快削铜支”的样品所做的测试

SGS 参考编号 : GZ050606928EC-3.2

收板日期 : 2005年6月14日

测试日期 : 2005年6月14日至2005年6月20日

测试要求 : 分析委托样品中的铅, 镉, 汞和六价铬含量。

测试方法 : 铅含量 - SGS 内部方法, 参照 EPA 方法 3050B:1996。
镉含量 - SGS 内部方法, 参照 BS EN1122:2001 方法 B。
汞含量 - SGS 内部方法, 参照 EPA 方法 3052:1996。
六价铬含量 - 参照 EPA 方法 3060A:1996 和 7196A:1992。
分析仪器为火焰原子吸收光谱仪和电感耦合等离子体发射光谱仪/
紫外分光光度计。

测试结果:

	金色金属件
铅含量 (Pb)(ppm)	3.1×10^4
镉含量 (Cd)(ppm)	9
汞含量 (Hg)	N.D.
六价铬含量 [Cr(VI)]	N.D.

说明: - N.D. = 没有检测到 (< 2 ppm)
- ppm = 毫克/千克

*** 报告完 ***

Signed for and on behalf of
SGS-CSTC Ltd.


He Xiaoyan, Jane
Tech. Manager

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Test Report

No.: GZSCR050855719/LP

Date: AUG 05, 2005

Page 1 of 1

SHENZHEN CITY LIAN FENG METAL PLASTIC PRODUCE CO., LTD.
LIU LIAN LAO WEI VILLAGE INDUSTRIAL AREA,
PING DI TOWN, LONG GANG DISTRICT, SHEN ZHEN CITY

Report on the submitted sample said to be 金缸水

SGS Ref No. : SZ050815266EC
Sample Receiving Date : AUG 01, 2005
Testing Period : AUG 01, 2005 TO AUG 05, 2005

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

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

RESULTS

	No.1	No.2
Lead Content (Pb)	N.D.	N.D.
Cadmium Content (Cd)	N.D.	N.D.
Mercury Content (Hg)	N.D.	N.D.
Hexavalent Chromium Content [Cr(VI)]	N.D.	N.D.

Specimen Description:

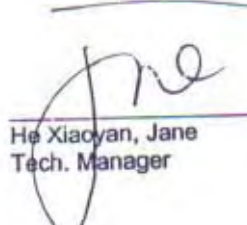
No.1 Lt-brown liquid

No.2 Green liquid

Note : - N.D. = Not Detected (< 2 ppm)
- ppm = mg/kg

*** End of Report ***

Signed for and on behalf of
SGS-CSTC Ltd.


He Xiaoyan, Jane
Tech. Manager

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GZCM 280578

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

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Member of SGS Group (Société Générale de Surveillance)

测试报告

编号: SZTYR060100773/LP 日期: 2006年01月20日 第1页(共1页)

(盈盛)鑫合实业有限公司
东莞市虎门镇沙角二轻工业城

本报告是基于对客户所提供的据称为“三价铬镀锌”的样品所做的测试。

收样日期: 2006年01月10日
测试周期: 2006年01月11日至2006年01月19日

测试要求:

- 1) 分析委托样品中的铅含量。
- 2) 分析委托样品中的镉含量。
- 3) 分析委托样品中的汞含量。
- 4) 分析委托样品中的六价铬含量。

测试方法:

- 1) 参照EPA方法3050B: 1996 / 其它酸消解法。分析仪器为原子吸收光谱仪(AAS)。
- 2) 参照EN1122: 2001方法 / 其它酸消解法。分析仪器为原子吸收光谱仪(AAS)。
- 3) 参照EPA方法3052: 1996 / 其它酸消解法。分析仪器为电感耦合等离子发射光谱仪。
- 4) 参照EPA方法3060A: 1996 及 7196A: 1992 比色法。

测试结果

	泛彩金属性	检出限
1) 铅[Pb]	36	2 ppm
2) 镉[Cd]	N.D.	2 ppm
3) 汞[Hg]	N.D.	2 ppm
4) 六价铬[Cr(VI)]	N.D.	2 ppm

说明: - N.D. = 未检出(低于检出限)
- ppm = 毫克/千克

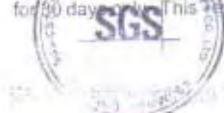
*** 报告完 ***

Signed for and on behalf of
SGS-CSTC Ltd.

Li Ying, Susan
Section Manager



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测试报告

编号: GZSCR050641770/LP

日期: 2005年6月30日 页码 1 of 3

广州市协盛精密化学有限公司

广州市天河区小新塘沐陂军营九号大院后栋

本报告是基于所提供的名称为“电泳涂料槽液”的样品所做的测试

SGS 参考编号: GZ050607521EC-2.1

客户名称: 索尼

测试日期: 2005年6月23日

测试日期: 2005年6月23日至2005年6月30日

测试要求: (1) 委托样品中的铅, 镉, 汞和六价铬含量。
(2) 委托样品中的多溴联苯, 多溴联苯醚的含量。

测试方法: (1) 铅和镉含量 - 参照 EPA 方法 3050B:1996, 见流程图。
汞含量 - SGS 内部方法, 参照 EPA 方法 3052: 1996。
六价铬含量 - 参照 EPA 方法 3060A:1996 和 7196A:1992。
分析仪器为电感耦合等离子体发射光谱仪/紫外分光光度计。
(2) SGS 内部方法。分析仪器为 GC/MS。

测试结果: 请参见下一页

Signed for and on behalf of
SGS-CSTC Ltd.

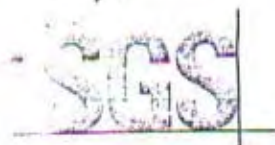
He Xiaoyan, Jane
Tech. Manager

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GZCM 257694

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Member of SGS Group (Société Générale de Surveillance)



测试报告

编号: GZSCR050641770/LP

日期: 2005 年 6 月 30 日 页码 2 of 3

测试结果:

(1)	黑色液体
铅含量 (Pb)	N.D.
镉含量 (Cd)	N.D.
汞含量 (Hg)	N.D.
六价铬含量 [Cr(VI)]	N.D.

说明: - N.D. = 没有检测到 (< 2 ppm)
- ppm = 毫克/千克

(2)

阻燃剂	黑色液体	检测限
多溴联苯 (PBBs)		
单溴联苯	N.D.	5 ppm
二溴联苯	N.D.	5 ppm
三溴联苯	N.D.	5 ppm
四溴联苯	N.D.	5 ppm
五溴联苯	N.D.	5 ppm
六溴联苯	N.D.	5 ppm
七溴联苯	N.D.	5 ppm
八溴联苯	N.D.	5 ppm
九溴联苯	N.D.	5 ppm
十溴联苯	N.D.	5 ppm
多溴联苯醚 (PBDEs)		
单溴联苯醚	N.D.	5 ppm
二溴联苯醚	N.D.	5 ppm
三溴联苯醚	N.D.	5 ppm
四溴联苯醚	N.D.	5 ppm
五溴联苯醚	N.D.	5 ppm
六溴联苯醚	N.D.	5 ppm
七溴联苯醚	N.D.	5 ppm
八溴联苯醚	N.D.	5 ppm
九溴联苯醚	N.D.	5 ppm
十溴联苯醚	N.D.	5 ppm

说明: - N.D. = 没有检测到 (< 5 ppm)
- ppm = 毫克/千克

*** 报告完 ***

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GZCN 257693

SGS (China) Service Co., Ltd.
11/12/2004

4/F, Block B, Yu Jing Industrial Park, Ling Shan Road, Zhu Cun Dong Pu Area, Tianhe District, Guangzhou, China. 510660
中国·广州·天河区东圃珠村灵山路裕景工业园八栋四楼 邮编: 510660

Member of SGS Group (Société Générale de Surveillance)

Test Report

No. SH540484/CHEM

Date: 7.7.2005

Page 1 of 4

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

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

Sample Name : VALFLONROD
SGS Ref No. : SHEC0050615081
Model : $\Phi 5 \times 1000L$
Material : PTFE

Sample Receiving Date : June 24, 2005
Testing Period : June 24 to July 07, 2005

Test Requested :

- 1) *To determine the Cadmium Content of the submitted sample.
- 2) *To determine the Lead content of the submitted sample.
- 3) *To determine Mercury Content of the submitted sample.
- 4) To determine Hexavalent Chromium content of the submitted sample.
- 5) To determine the PBBs(Polybrominated biphenyls) PBBEs(PBDEs) (Polybrominated biphenyl ethers) Content of the submitted sample.
- 6) To determine the PCBs(Polychlorinated Biphenyls) Content of the submitted sample.
- 7) To determine the Polychlorinated Naphthalene Content of the submitted sample.
- 8) To determine the Chlorinated Paraffin content of the submitted sample.
- 9) To determine the Mirex(CAS NO:002385-85-5) Content of the submitted sample.
- 10) *To determine the Asbestos Content of the submitted sample.
- 11) ***As specified by client, to detection and determination of certain listed aromatic amines derived from Azo Colorants (EN14362-2:2003)

Test method/Test Results: Please refer to next page

Conclusion : 11) ***According to the analysis as carried out, azo colorants which can release one or more of certain listed amines by cleavage of their azo group/s were not detected in the commodity submitted.

Signed for and on behalf of
SGS-CSTC Chemical Laboratory

Ella Zhang
Supervisor



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SHCH 298688

Test Report

No. SH540484/CHEM

Date: 7.7.2005

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Test method

- 1) *ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.
- 2) *ICP-AES after reference to US EPA 3050B or other acid digestion.
- 3) *ICP-AES after reference to US EPA 3052 or other acid digestion.
- 4) With reference to US EPA3060A and US EPA7196A
Analysis was performed by UV-VIS Spectrometric method.
- 5) With reference to USEPA 8081/8270C/3540C/3550B, Analysis was performed by GC/MS.
- 6) With reference to US EPA 8082, 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) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 10) *As per NIOSH 9000 method. Analysis was performed by XRD.
- 11) *** Extraction test on coloured textile – Detection of the use of certain azo colorants in fibres with extractable dyes with the use of Gas Chromatographic Mass Spectrometry (GC-MS) / Thin Layer Chromatography (TLC) Technique.

Test Results

No.	Item	Unit	MDL	A
1*	Cadmium (Cd)	ppm	2	N.D.
2*	Lead (Pb)	ppm	2	N.D.
3*	Mercury (Hg)	ppm	2	N.D.
4	Hexavalent Chromium (Cr VI)	ppm	2	N.D.
5	PBBs(Polybrominated biphenyls)	—	—	—
	PBBs(Bromobiphenyl)	ppm	5	N.D.
	PBBs(Dibromobiphenyl)	ppm	5	N.D.
	PBBs(Tribromobiphenyl)	ppm	5	N.D.
	PBBs(Tetrabromobiphenyl)	ppm	5	N.D.
	PBBs(Pentabromobiphenyl)	ppm	5	N.D.
	PBBs(Hexabromobiphenyl)	ppm	5	N.D.
	PBBs(Heptabromobiphenyl)	ppm	5	N.D.
	PBBs(Octabromobiphenyl)	ppm	5	N.D.
	PBBs(Nonabromobiphenyl)	ppm	5	N.D.
	PBBs(Polybrominated biphenyls)	ppm	5	N.D.
	PBBEs(PBDEs)(Polybrominated biphenyl ethers)	—	—	—
	PBBEs(PBDEs)(Monobromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Dibromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Tribromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Tetrabromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Pentabromobiphenyl ether)	ppm	5	N.D.

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SHCH 298689

Test Report

No. SH540484/CHEM

Date: 7.7.2005

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	PBBEs(PBDEs)(Hexabromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Heptabromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Octabromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Nonabromobiphenyl ether)	ppm	5	N.D.
	PBBEs(PBDEs)(Decabromobiphenyl ether)	ppm	5	N.D.
6	PCBs(Polychlorinated Biphenyls)	ppm	0.5	N.D.
7	Polychlorinated Naphthalene	ppm	5	N.D.
8	Chlorinated Paraffin	ppm	30	N.D.
9	Mirex	ppm	0.5	N.D.

10) *Asbestos content

Test Item(s):	Unit	MDL	Result
			A
Asbestos			
Anthrophyllite	**	-	Negative
Crocodolite	**	-	Negative
Amosite	**	-	Negative
Tremolite	**	-	Negative
Chrysotile	**	-	Negative
Actinolite	**	-	Negative

11) ***To detection and determination of certain listed aromatic amines derived from Azo Colorants (EN14362-2:2003)

No.	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'-dimethybenzidine/4,4'-bi-o-Toluidine	119-93-7	n.d.

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SHCH 298690

Test Report

No. SH540484/CHEM

Date: 7.7.2005

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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.

Overall Rating

PASS

Note:

n.d. = not detectable

Detection Limit = 5 ppm (mg/kg)

Requirement: no relevant amine exceeding 30 ppm (mg/kg).

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- Greening Label: Oko-Tex Standard 100-2002 edition (European Countries)

Remarks: Azo colorants that are able to form 4-aminoazobenzene (CASn: 60-09-3), generate under the testing condition into aniline and 1, 4-phenylenediamine.

The detection of it can only be ascertained with the chemical structure of the colorant used.

Sample Appearance Description:

A. White plastic bar

Note: ppm=mg/kg

MDL= Method Detection Limit

N.D. = Not detected.(<MDL)

"-" = Not Regulation

**= Qualitative analysis(No Unit)

Negative = Undetectable / Positive = Detectable.

***These tests were subcontracted to SGS-SHSL TEXTLIE LAB (Date of testing: 2005/06/24-06/28).

*These tests were subcontracted to SGS Taiwan Ltd (Date of testing: 2005/06/27-07/06).

*** End of Report ***

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SHCH 298691

SGS-CTC Standards Technical Services Co., Ltd.
Shanghai Branch Testing Center/Reference Laboratory

1/F, 7/F, 9/F & 10/F, the 3rd Building, No. 889, Yishan Road, Xuhui District, Shanghai, China 200233 1+86 21 6495 1616*2822 1+86 21 5450 0314
中国 上海 徐汇区宜山路889号3号楼1楼, 7楼, 9楼, 10楼 邮编: 200233 1+86 21 6495 1616*2822 1+86 21 5450 0314 www.cn.sgs.com

Member of the PPP Group (Prestige Private de Prestation)

测试报告

编号: SZTYR060100775/LP 日期: 2006年01月19日 第1页(共1页)

盈盛鑫合实业有限公司
东莞市虎门镇沙角二轻工业城

本报告是基于对客户所提供的据称为“铁铜镀锌”的样品所做的测试。

收样日期: 2006年01月10日
测试周期: 2006年01月11日至2006年01月18日

测试要求:

- 1) 分析委托样品中的铅含量。
- 2) 分析委托样品中的镉含量。
- 3) 分析委托样品中的汞含量。
- 4) 分析委托样品中的六价铬含量。

测试方法:

- 1) 参照EPA方法3050B: 1996/其它酸消解法, 分析仪器为原子吸收光谱仪(AAS)。
- 2) 参照EN1122: 2001方法/其它酸消解法, 分析仪器为电感耦合等离子发射光谱仪(ICP-AES)。
- 3) 参照EPA方法3052: 1996/其它酸消解法, 分析仪器为电感耦合等离子发射光谱仪。
- 4) 参照EPA方法3060A: 1996及7196A: 1992比色法。

测试结果

	银色金属件	检出限
1) 铅 (Pb)	17	2 ppm
2) 镉 (Cd)	N.D.	2 ppm
3) 汞 (Hg)	N.D.	2 ppm
4) 六价铬 [Cr(VI)]	N.D.	2 ppm

说明: N.D. = 未检出 (低于检出限)
- ppm = 毫克 / 千克

*** 报告完 ***

Signed for and on behalf of
SGS-CSTC Ltd.


Li Ying, Susan
Section Manager



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32L 431497

SGS-CSTC (Shenzhen) Co., Ltd.

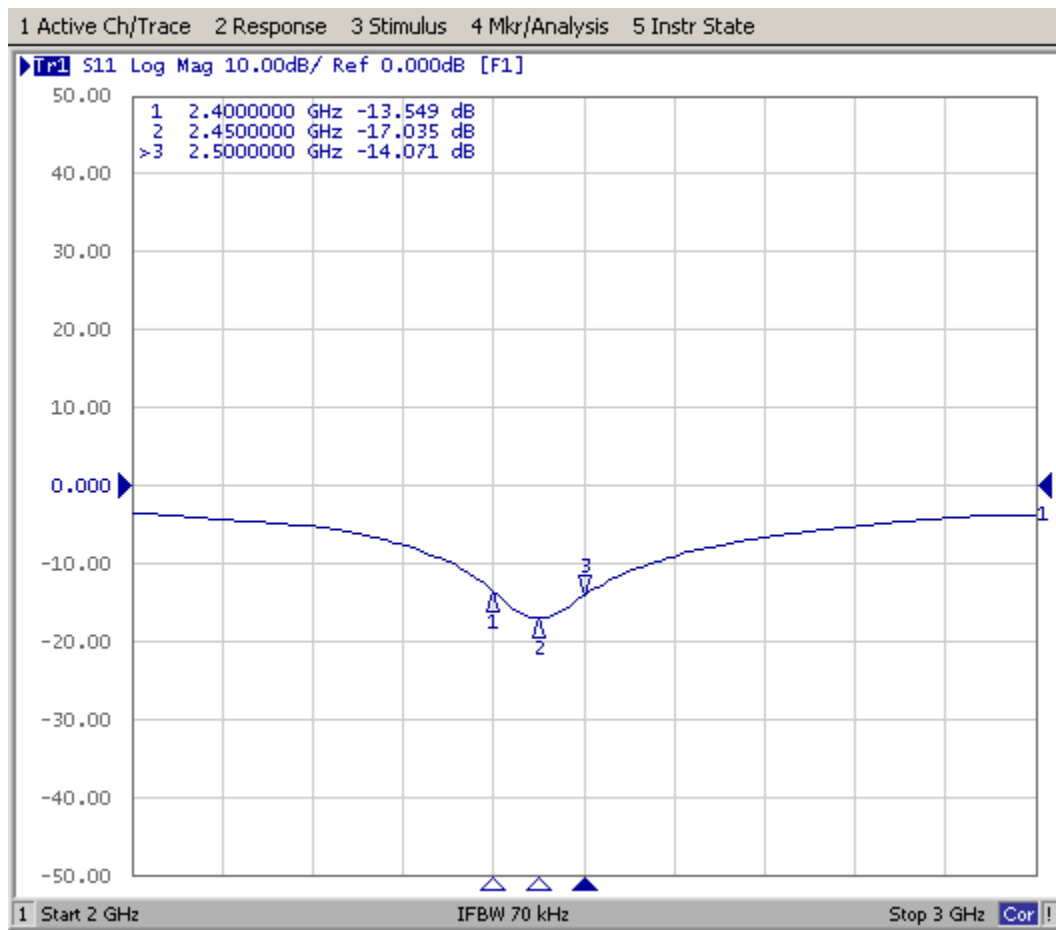
4/F, Ostar Building, Zhongguang Road, Shenzhen, China

T: (86-755) 83114358 F: (86-755) 83108190

www.cn.sgs.com
sgs.china@sgs.com

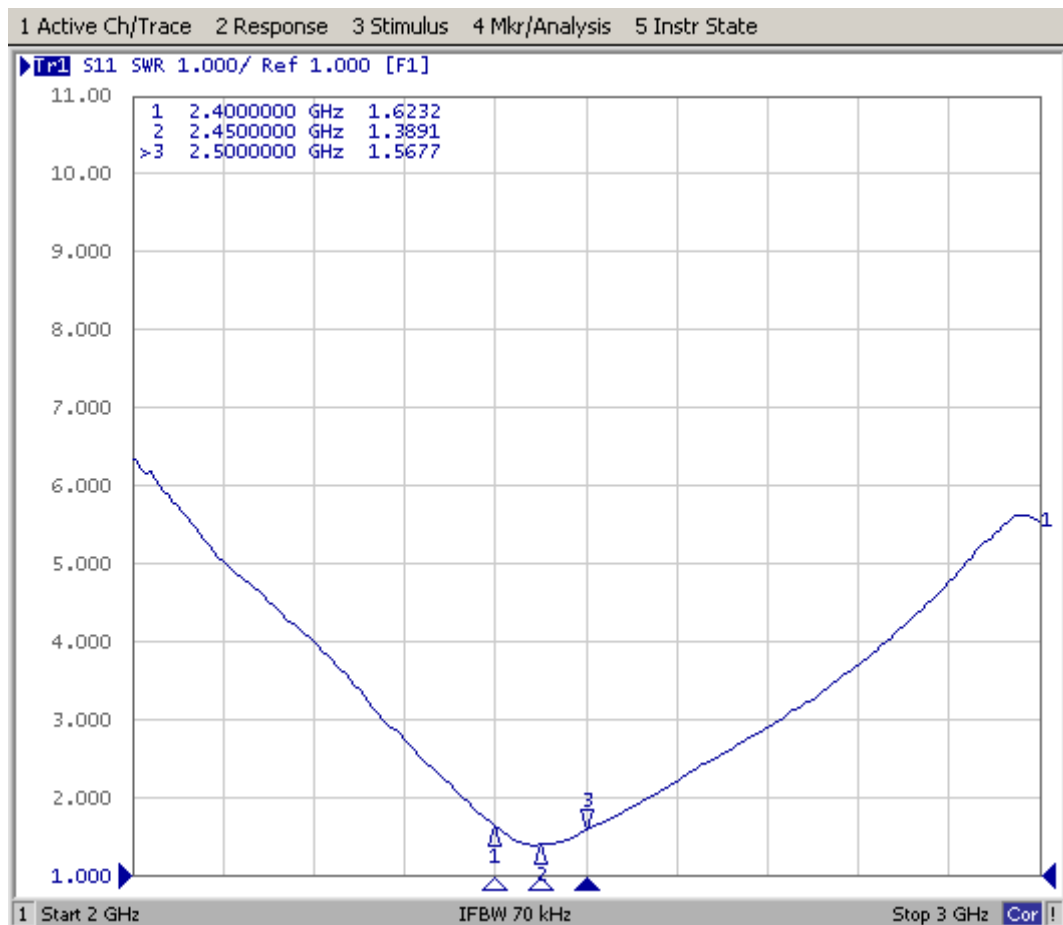
Electrical Properties

Return Loss



Electrical Properties

V.S.W.R



Electrical Properties

Radiation Pattern – H Plane

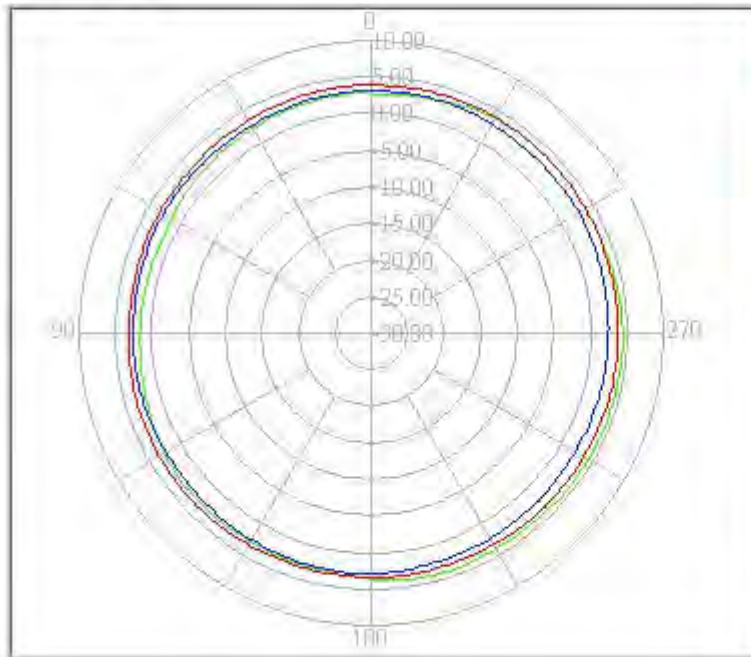


萬旭電業股份有限公司

Model No: 060508155

Antenna Position: Vertical

Test Mode: H



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	4.48	97.30	3.30
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	4.02	23.11	3.60
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2500.00	3.16	15.81	2.70

Electrical Properties

Radiation Pattern – E Plane

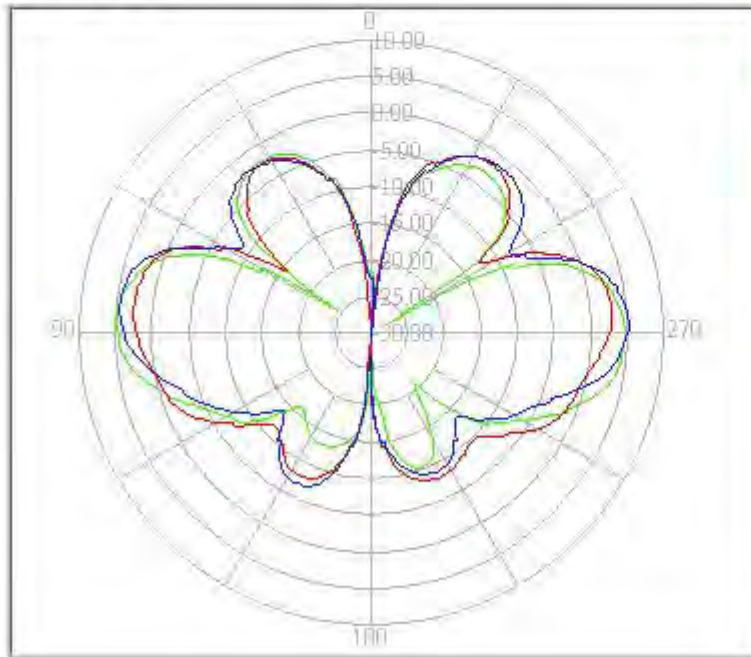


萬旭電業股份有限公司

Model No: 060508155

Antenna Position: Horizontal

Test Mode: E



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	4.81	273.36	-2.16
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	3.07	85.42	-2.93
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2500.00	5.27	87.86	-2.03

Coaxial Cable Data Sheet
RG-178

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



Test Report

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

Report No. : CE/2006/10628
Date : 2006/01/10
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, RF-405A
Sample Received : 2006/01/03
Testing Date : 2006/01/03 TO 2006/01/10

=====

Test Result : - Please see the next page -


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

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Test Report

WONDERFUL HI-TECH CO., LTD.
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND., PARK,
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Report No. : CE/2006/10628

Date : 2006/01/10

Page : 2 of 5

Test Result

PART NAME NO.1 : SILVER COLORED METAL WIRE
PART NAME NO.2 : TRANSPARENT PLASTIC INSULATION
PART NAME NO.3 : SILVER COLORED METAL WIRE (WEAVED)
PART NAME NO.4 : BROWN PLASTIC JACKET

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 PBBEs(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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Test Report

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

Report No. : CE/2006/10628

Date : 2006/01/10

Page : 3 of 5

Test Item (s):	Unit	Method	MDL	Result			
				No.1	No.2	No.3	No.4
Chromium VI (Cr+6)	ppm	UV-VIS 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

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Test Report

WONDERFUL HI-TECH CO., LTD.
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND., PARK,
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Report No. : CE/2006/10628
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Page : 5 of 5



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Housing Material Data Sheet

• Housing – TPU



TO: 謝和興 22990946

R 1/2

南亞塑膠工業股份有限公司
NAN YA PLASTICS CORPORATION

Upittor 產品品質物性表

規格: TI90A (TPU)

日期: 93.11.15

檢驗項目 (Items)	檢驗標準 ASTM	單位 (Units)	物性值 (Value)
硬度 (Hardness)	D 2240	Shore A	90
100%抗拉模數 (100% Modulus)	D 412	Kg/cm ²	80
拉力強度 (Tensile Strength)	D 412	Kg/cm ²	450
伸長率 (Ultimate Elongation)	D 412	%	500
撕裂強度 (Tear Strength)	D 412	Kg/cm	110
磨耗損失 (Taber Abrasion)	D 1044	mg	<5
反撥彈性 (Bayshore Rebound)	D 2632	%	>40
建議乾燥溫度 (Pretreatment)	100°C · 2 ~ 3 hrs		
建議加工溫度 (Production conditions)	190 ~ 200°C		
TPU 類型 (TPU type)	聚酯型 (Ester type)		
成形方式 (Molding)	射出成形 (Injection Molding)		
特性 (Product Characteristic)	物性佳; 易脫模; 耐磨耗 Good physical properties, Mold release easily, and Good abrasion resistance		
用途 (Applications)	1. 工業零組件 (Industrial elements) 2. 汽車配件 (for Automobile) 3. 運動器材 (for Athletics) 4. 其他如: 錶帶、寵物用具、滾輪、扣具 等。 (Watch bands · pet appliances · discs and rings · buckles etc.)		

上述資料會因產品設計、處理、及加工方式與條件不同而有所變異，僅供參考。



南亞塑膠工業股份有限公司

NAN YA PLASTICS CORPORATION

Upittor 產品品質物性表

規格：TI95A (TPU)

日期：93.11.15

檢 驗 項 目 (Items)	檢驗標準 ASTM	單 位 (Units)	物性值 (Value)
硬度 (Hardness)	D 2240	Shore A	95
100%抗拉模數 (100% Modulus)	D 412	Kg/cm ²	125
拉力強度 (Tensile Strength)	D 412	Kg/cm ²	500
伸長率 (Ultimate Elongation)	D 412	%	450
撕裂強度 (Tear Strength)	D 412	Kg/cm	130
磨耗損失 (Taber Abrasion)	D 1044	mg	<55
反撥彈性 (Bayshore Rebound)	D 2632	%	>40
建議乾燥溫度 (Pretreatment)	105°C · 1 ~ 2 hrs		
建議加工溫度 (Production conditions)	195 ~ 205°C		
TPU 類型 (TPU type)	聚酯型 (Ester type)		
成形方式 (Molding)	射出成形 (Injection Molding)		
特 性 (Product Characteristic)	物性佳；易脫模；耐磨耗 Good physical properties, Mold release easily, and Good abrasion resistance		
用 途 (Applications)	1. 工業零組件 (Industrial elements) 2. 汽車配件 (for Automobile) 3. 運動器材 (for Athletics) 4. 其他如：錶帶、寵物用具、滾輪、扣具 等。 (Watch bands, pet appliances, discs and rings, buckles etc.)		

上述資料會因產品設計、處理，及加工方式與條件不同而有所變異，僅供參考。





化學實驗室 - 高雄

試驗報告

報告號碼: KE/2005/B1411
日期: 2005/11/25
頁數: 1 OF 2

以下貨品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:

申請廠商	: 南亞塑膠工業股份有限公司樹林一廠.
樣品名稱	: TPU(如樣品卡).
樣品顏色	: 透明.
樣品型號	: TI90AA.
樣品材質	: 二元醇, 二異氰酸鹽.
測試執行日期	: 2005/11/21 TO 2005/11/25.
送樣日期	: 2005/11/21.
送樣廠商	: 南亞塑膠工業股份有限公司樹林一廠.

測試結果:

測試項目	單位	測試方法	儀器偵測極限	測試結果
銅	ppm	DIN 54020	0.020	n.d.
鉻	ppm	DIN 54020	0.025	n.d.
鉛	ppm	DIN 54020	0.020	n.d.
鈷	ppm	DIN 54020	0.020	n.d.
鎳	ppm	DIN 54020	0.015	n.d.
錳	ppm	DIN 54020	0.010	n.d.
砷	ppm	DIN 54020	0.050	n.d.

陳桂蘭

陳桂蘭/副主任



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TW2199790

SGS Taiwan Ltd. | No. 209, Chung Hwa 2nd Road San Min District Kaohsiung, Taiwan. / 高雄市三民區中華二路209號
台灣檢驗科技股份有限公司 | (886-7) 323-0920 | (886-7) 315-7484 | www.tw.sgs.com

P.01

TO 27138248

FROM 2005-12-13 14:07

SGS

化學實驗室 - 高雄

試驗報告

報告號碼: KE/2005/B1411

日期: 2005/11/25

頁數: 2 OF 2

測試項目	單位	測試方法	方法偵測極限	測試結果
三丁基錫 (TBT)	ppm	DIN 38407-13	0.015	n.d.
可塑劑	---	---	---	---
苯二甲酸二(2-乙己基)酯 (DEHP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸二異癸酯 (DIDP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸正辛酯 (DNOP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸二丁酯 (DBP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
鄰-苯二甲酸丁酯苯甲酯 (BBP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸二異壬酯 (DINP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.

備註: n.d. = 未偵測出

<END>



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SGS Taiwan Ltd.
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化學實驗室 - 高雄

試驗報告

報告號碼: KE/2005/B1412

日期: 2005/11/25

頁數: 1 OF 2

以下貨品係由客戶送樣, 且由客戶聲稱並經客戶確認如下:

申請廠商	: 南亞塑膠工業股份有限公司樹林一廠.
樣品名稱	: TPU(如樣品卡).
樣品顏色	: 透明.
樣品型號	: TI95AA.
樣品材質	: 二元醇, 二異氰酸鹽.
測試執行日期	: 2005/11/21 TO 2005/11/25.
送樣日期	: 2005/11/21.
送樣廠商	: 南亞塑膠工業股份有限公司樹林一廠.

測試結果:

測試項目	單位	測試方法	儀器偵測極限	測試結果
銅	ppm	DIN 54020	0.020	n.d.
鎳	ppm	DIN 54020	0.025	n.d.
鉛	ppm	DIN 54020	0.020	n.d.
鈷	ppm	DIN 54020	0.020	n.d.
鎘	ppm	DIN 54020	0.015	n.d.
錳	ppm	DIN 54020	0.010	n.d.
鉍	ppm	DIN 54020	0.050	n.d.



陳桂蘭
陳桂蘭/副主任

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P.03

TO 27178239

FROM 13:03 2005-11-29

2001



化學實驗室 - 高雄

試驗報告

報告號碼: KE/2005/B1412

日期: 2005/11/25

頁數: 2 OF 2

測試項目	單位	測試方法	方法偵測極限	測試結果
三丁基錫 (TBT)	ppm	DIN 38407-13	0.015	n.d.
可塑劑	—	—	—	—
苯二甲酸二(2-乙己基)酯 (DEHP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸二異癸酯 (DIDP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸正辛酯 (DNOP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸二丁酯 (DBP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
鄰-苯二甲酸丁酯苯甲酯 (BBP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.
苯二甲酸二異壬酯 (DINP)	ppm	CHROMATOGRAPHIA VOL.47,NO.784,1998	30	n.d.

備註: n.d. = 未偵測出

<END>



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P.04

TO 27178239

FROM 13:04 2005-11-29

- Hinge (Base/Holder) – PC+ALLOY

SHINBLEND® ALLOY ENGINEERING PLASTIC DIVISION	SHINKONG SYNTHETIC FIBERS CORPORATION 新光合成纖維股份有限公司 8th Fl., 123, Sec.2, Nanking East Road, Taipei, Taiwan Tel.: 886-2-2507-0131, 886-2-2507-1234 (40 lines), 886-3-4932131-1730 Fax: 886-2-2506-8047, 886-3-491-5563
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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

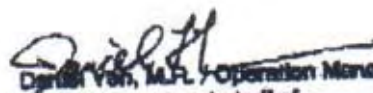
Report No. : CE/2006/13401
Date : 2006/01/19
Page : 1 of 5

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 Yen, M.P., Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

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SGS TAIWAN (UNIVERSITY) | NO. 136-1, Wu Kung Road, Wujia Industrial Zone, Tainan County, Taiwan
10900-01 22963629 (Fax) 3 2296-7237 www.sgs.com.tw

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.
Tri bromobiphenyl	%		0.0005	N.D.
Tetrabromobiphenyl	%		0.0003	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	%			
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.
Tri bromobiphenyl 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 PBEEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above	%			
Total of Mono to Nona- brominated biphenyl ether. (Note 4)	%			N.D.

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