

APPROVAL SHEET

Customer: _____

Customer P/N: _____

Connfly P/N: DS1037

Description: D-SUB R/A (7.2mm) TYPE

File Number: CXAS-0908001

Customer Signature:

Quality Department	Engineer Department	Approved By
Date:	Date:	Date:

CONNFLY

Made By	Checked By	Approved By
YCH	~	LJC
Date: 09-07-28	Date:	Date: 09-07-28



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Materials Information

Item	Part Name	Materials	Finished
1	Contact	Brass	Selective gold flash
2	Boardlock	Brass	Full tin
3	Shell	Steel	Full nickel
4	Screw	Copper alloy	Full nickel
5	Rivet	Copper alloy	Full nickel
6	Housing	PBT	UL 94 V-0
7	Cover	PBT	UL 94 V-0

 CONNFLY	D-SUB Series connector Product Specification	DOC. No.:ZQ-IPS-DS1037		Rev.:A	Page:1/8
		Approved/Date		Checked/Date	Written/Date
		LJC 2006-2-24	LJC 2006-2-24	LJC 2006-2-24	LJC 2006-2-24

Product Specification For D-SUB Series

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1.0 Scope : This specification covers the requirements for product performance and test methods of Connfly's D-SUB Series Connectors of the part numbers specified as bellow. Product shall be of the design, construction and physical dimensions specified in the applicable product drawing.

2.0 Rating :

2.1 Voltage Rating : 250 Vac (rms)

2.2 Temperature Range: operating : -20°C to +70°C :

3.0 Test Condition:

All tests shall be performed as bellow conditions unless otherwise specified.

3.1 Temperature range : +15°C to +35°C

3.2 Humidity range: 25% to 85%

3.3 Atmospheric Pressure : 86KPa to 106KPa

4.0 Test Methods and Requirements:

4.1 Examination of product:

Item	Test Description	Test Methods	Requirement
4.1.1	Examination of product (Outward Appearance Structure)	EIA 364-18 Shall be confirmed with eyes in accordance with each drawing. Shall be confirmed by using proper measuring instruments.	1).Outward appearance shall be good without such injurious problem 2).Structure shall be meet the design and dimensional requirements of drawing.

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4.2 Electrical Performance:

Item	Test Description	Test Methods	Requirement
4.2.1	Low Level Contact Resistance	<p>EIA 364-23 (or MIL-STD-1344A, Method 3002.1, Test Condition B)</p> <p>Subject mated contacts assembled in housing to 20mV maximum open circuit at 100 mA maximum</p> <p>The object of this test is to detail a standard method to measure the electrical resistance across a pair of mated contacts such that the insulating films, if present will not be broken or asperity melting will not occur.</p>	1).Initial: 20 mΩ Maximum 2).After test: 20 mΩ Maximum
4.2.2	Insulation Resistance	<p>EIA 364-21 (or MIL-STD-202F, Method 302, Test Condition B)</p> <p>Test between adjacent contacts of mated and unmated connector assemblies.</p> <p>The object of this test procedure is to detail a standard method to assess the insulation resistance of D-SUB connectors. This test procedure is used to determine the resistance offered by insulation connector to a DC potential current through or on the surface of the members.</p>	1).Initial: 1000 MΩ Minimum 2).After test: 1000 MΩ Minimum

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4.2 Electrical Performance: (Continued)

Item	Test Description	Test Methods	Requirement
4.2.3	Dielectric Withstanding Voltage	<p>EIA 364-20 (or MIL-STD-202F, Method 301, Test Condition B)</p> <p>Test between adjacent contacts of mated and unmated connector assemblies.</p> <p>The object of this test procedure is to detail a test method to prove that a D-SUB connector can operate safely at its rated voltage and withstand momentary over potentials due to switching, surges and/or other similar phenomena.</p>	<p>500 V AC for one minute at sea level</p> <p>1).No flashover or insulation breakdown</p>

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4.3 Mechanical Performance:

Item	Test Description	Test Methods	Requirement
4.3.1	Durability	<p>EIA 364-09</p> <p>Mate and unmate Connector assemblies for 500 cycles at maximum rated of 200 cycles per hour.</p> <p>The object of this test procedure is to detail a uniform test method for determining the effects caused by subjecting a D-SUB connector to the conditioning action of inserting and extraction, simulating the expected life of the connectors. Durability cycling with a gauge is intended only to produce mechanical stress. Durability performed with mating components is intended to produce both mechanical and wear stress.</p>	1). Shall meet visual requirement and electrical performances.
4.3.2	Connector Mating Force	<p>EIA 364-13</p> <p>Shall be measured with Tension gauge or Tension tester.</p> <p>Measure force necessary to mate assemblies at maximum rate of 12.5mm (or 0.492") per minute.</p> <p>The object of this test is to detail a standard method for determining the mechanical forces required for inserting a D-SUB connector.</p>	0.5*pos. Kgf maximum

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4.3 Mechanical Performance: (Continued)

Item	Test Description	Test Methods	Requirement
4.3.3	Connector Unmating Force	EIA 364-13 <p>Shall be measured with Tension gauge or Tension tester.</p> <p>Measure force necessary to mate assemblies at maximum rate of 12.5mm (or 0.492") per minute.</p> <p>The object of this test is to detail a standard method for determining the mechanical forces required for extracting a D-SUB connector.</p>	0.1*posKgf minimum

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		LJC 2006-2-24	LJC 2006-2-24	LJC 2006-2-24	

4.4 Environmental Performance:

Item	Test Description	Test Methods	Requirement
4.4.1	Salt Spray	MIL-STD-202F, Method 101D, Test Condition B Subject to 4 hours(Tin plated) or 8 hours(Gold plated) at 35°C with 5% Salt-solution concentration.	1). Shall meet visual requirement, show no physical damage.
4.4.2	Solderability	EIA 364-52 After half hour steam aging. The object of test procedure is to detail a uniform test methods for determining D-SUB connector solderability. The test procedure contained here utilizes the solder dip technique. It is not intended to test or evaluate solder cup, solder eyelet, other hand-soldered type or SMT type terminations.	The surface of the portion to be soldered shall at least 95% (tin plated only)covered with new solder coating.
4.4.3	Resistance to Soldering Heat	1) for WAVE SOLDERING : MIL-STD-202F, Method 210A, Test Condition B. Pre-heat : 80°C , 60 Seconds Temperature : 260±5 °C Immersion duration : 5 ± 1 sec. 2) for MANUAL SOLDERING : MIL-STD-202F, Method 210A, Test Condition A. Pre-heat : No Temperature : 330 ± 10 °C Immersion duration : 3.5 ± 0.5 sec.	1). No mechanical defect on housing or other parts.

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5.0 Test Sequence:

Test Group (a)		Sample Groups											
Test Item	Test Description	A	B	C	D	E	F	G	H	I	J	K	L
4.1.1	Examination of product	1,7	1,8	1,3	1,3	1,3							
4.2.1	Low Level Contact Resistance	2	5										
4.2.2	Insulation Resistance	3	6										
4.2.3	Dielectric Withstanding Voltage	4	7										
4.3.1	Durability		2										
4.3.2	Connector Mating Force	5	3										
4.3.3	Contact Unmating Force	6	4										
4.4.1	Salt Spray			2									
4.4.2	Solderability				2								
4.4.3	Resistance to Soldering Heat					2							
Number of Test Samples (Minimum)		5	5	5	5	5							

Notes:

- a. Samples shall be prepared in accordance with applicable manufacturer's instructions and shall be selected at random from current production.
- b. The numbers in the table indicate sequence in which tests are performed.
- c. Precondition samples with 5 cycles durability.
- d. All the tests shall be performed in the sequence, indicated by the number in the columns.
- e. Each test group shall consist of minimum of eight connectors. A minimum of 30 contacts shall be selected and identified. Unless otherwise specified, these contacts shall be used for all measurements.
- f. This specification applies to all series of D-SUB.



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Products Test Report

Products No.:	DS1037
Description:	D-SUB RIGHT ANGLE(7.2mm) TYPE
Test Date:	2009-8-17
Revision:	A

A: Electrical characteristic:

Item	Test Description	Test Methods	Specification	Result
1	Contact Resistance	EIA-364-18	20mΩ max.	9.3-11.2
2	Dielectric Withstanding Voltage	EIA-364-20	500VAC 1minute	pass
3	Insulation Resistance	EIA-364-21	1000MΩ min.	pass

B: Mechanical characteristic:

4	Mating force(initial)			
	9p	EIA-364-13	4.5Kgf max.	2.0-2.7
	15p	EIA-364-13	7.5Kgf max.	3.7-4.6
	25p	EIA-364-13	12.5Kgf max.	5.3-7.2
	37p	EIA-364-13	18.5Kgf max.	6.5-7.6
5	Unating force(initial)			
	9p	EIA-364-13	0.9Kgf min.	1.5-1.9
	15p	EIA-364-13	1.5Kgf min.	2.1-3.2
	25p	EIA-364-13	2.5Kgf min.	3.8-4.6
	37p	EIA-364-13	3.7Kgf min.	4.3-5.1
6	Durability	EIA-364-09	500 cycles	
6.1	Contact Resistance(after)	EIA-364-18	20mΩ max.	9.8-11.5
6.2	Dielectric Withstanding Voltage(after)	EIA-364-20	500VAC 1minute	pass
6.3	Insulation Resistance(after)	EIA-364-21	1000MΩ min.	pass
6.4	Mating force(after)			
	9p	EIA-364-13	4.5Kgf max.	1.7-2.2
	15p	EIA-364-13	7.5Kgf max.	3.3-4.4
	25p	EIA-364-13	12.5Kgf max.	4.5-6.3
	37p	EIA-364-13	18.5Kgf max.	6.1-7.1

	Unating force(after)			
6.5	9p	EIA-364-13	0.9Kgf min.	1.3-1.7
	15p	EIA-364-13	1.5Kgf min.	1.8-3.1
	25p	EIA-364-13	2.5Kgf min.	3.3-4.5
	37p	EIA-364-13	3.7Kgf min.	4.0-4.9

C: Environment characteristic:

8	Solderablility	EIA-364-52	95% min.	98%
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D: Test environment:

- a. Temperature: 23°C to 28°C
- b. Humidity: 25% to 85%
- c. Atmospheric Pressure : 86kPa to 106 kPa

Approved by: 卢金春

Checked by: 邵冬琴

Test by: 王美情



宁波晨翔电子有限公司
CONNFLY ELECTRONIC CO., LTD
Test Equipment



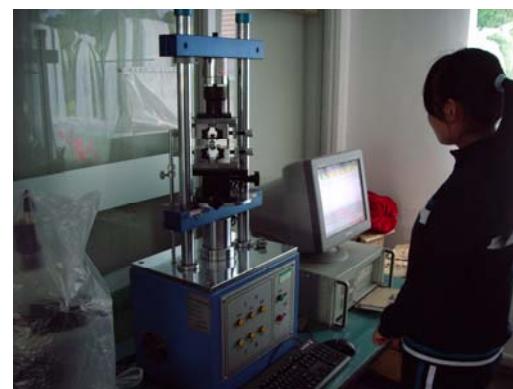
Contact Resistance Tester



Insulation Resistance Tester



D. W. V Tester



Automatic pull & push Tester



Solderability Tester

Approved by: 卢金春

Checked by: 邵冬琴

Test by: 王美情

上海立兴电镀有限公司

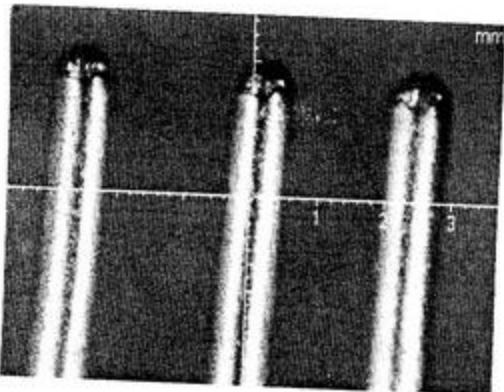
HELMUT FISCHER GmbH

Industriestrasse 21
71069 Sindelfingen



Fischerscope? XRAY XULM

Product: 3 / Au/Ni/CuZn Dir : Fischer Block: 4
Application: 3 / Au/Ni/CuZn



调校标准:

n = 1 Au = 1.07 $\mu"$ Ni = 39.3 $\mu"$
n = 2 Au = 1.21 $\mu"$ Ni = 39.7 $\mu"$
n = 3 Au = 1.17 $\mu"$ Ni = 39.6 $\mu"$
n = 4 Au = 1.21 $\mu"$ Ni = 39.8 $\mu"$

Mean

1.165 $\mu"$ 39.62 $\mu"$

Standard deviation

0.067 $\mu"$ 0.258 $\mu"$

C.O.V.

5.74 0.65 %

Range

0.145 $\mu"$ 0.589 $\mu"$

Number of readings

4 4

Min. reading

1.07 $\mu"$ 39.3 $\mu"$

Max. reading

1.21 $\mu"$ 39.8 $\mu"$

Measuring time

15 sec

Operator:

Date: 2009-8-27 Time: 9:51:19

渊博(立兴)电镀有限公司

HEL MUT FISCHER GmbH + Co

Industriestrasse 21

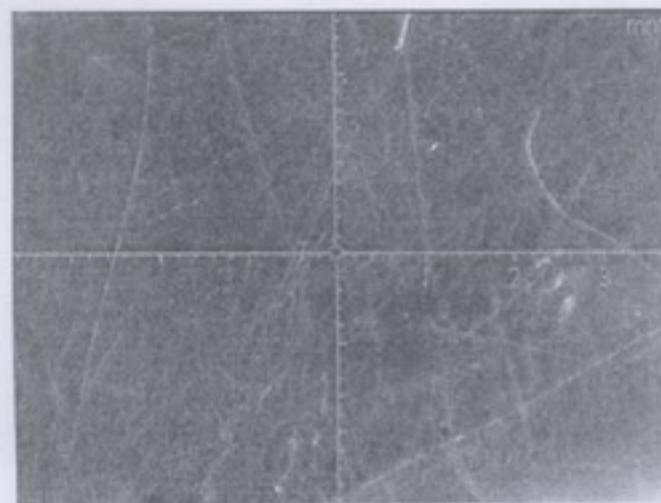
71069 Sindelfingen



Fischerscope? XRAY XULM

Product: 3 / Au/Ni/CuZn Dir.: Fischer Block: 3

Application: 3 / Au/Ni/CuZn



调校标准:

n = 1 Au = 0.924 μ" Ni = 58.0 μ"
n = 2 Au = 1.09 μ" Ni = 55.7 μ"
n = 3 Au = 1.01 μ" Ni = 56.5 μ"
n = 4 Au = 1.26 μ" Ni = 58.8 μ"

Mean	1.071 μ"	57.24 μ"
Standard deviation	0.143 μ"	1.396 μ"
C.O.V.	13.30 %	2.44 %
Range	0.334 μ"	3.04 μ"
Number of readings	4	4
Min. reading	0.924 μ"	55.7 μ"
Max. reading	1.26 μ"	58.8 μ"
Measuring time	15 sec	

Operator:

Date: 2009-9-2 Time: 17:42:35

晨(手写)

渊博(立兴)电镀有限公司

HEL MUT FISCHER GmbH + Co
Industriestrasse 21
71069 Sindelfingen



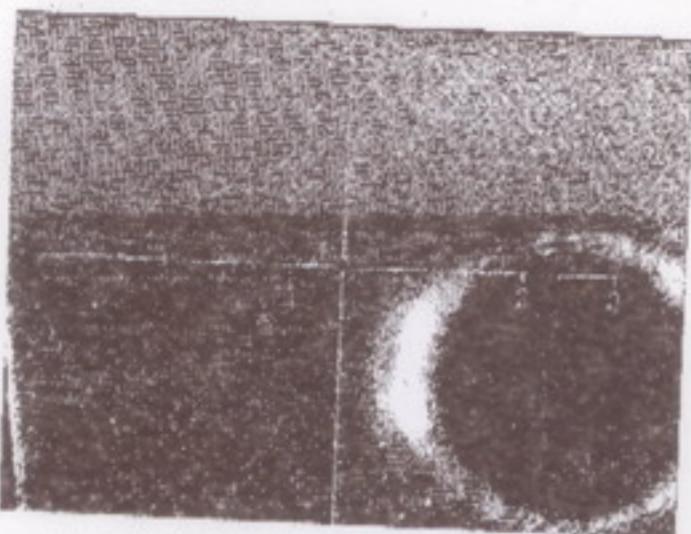
Fischerscope? XRAY XULM

Product: 14 / Ni/Cu/Fe

Dir.: Fischer

Block: 55

Application: 14 / Ni/Cu/Fe



调校标准:

n = 1 Ni = 155.8 μ" Cu = 69.5 μ"
n = 2 Ni = 159.9 μ" Cu = 87.7 μ"
n = 3 Ni = 146.7 μ" Cu = 86.0 μ"

Mean

154.1 μ" 81.1 μ"

Standard deviation

6.75 μ" 10.0 μ"

C.O.V.

4.38 % 12.39 %

Range

13.2 μ" 18.2 μ"

Number of readings

3 3

Min. reading

146.7 μ" 69.5 μ"

Max. reading

159.9 μ" 87.7 μ"

Measuring time

15 sec

Operator:

Date: 2009-3-19 Time: 16:56:16

FISTSCHERSCOPE X-RAY 1000 TEST RECORD

ZHEJIANG ZHONGXING ELECTRONICS CO.LTD

CUSTOMER Ni 侨鑫
 DESCRIPTION Part Name: Screw
 SPECIFICATION
 OPERTTIME
 TESTTIME
 ADDRESS
 TELEPHINENUMBER 0574-63402860

3 Ni /Cu (μ)

THICKNESS Coll. 2 Abs 1

CUMULATIVE STATISTICS
 N totaal = 469.8

THICKNESS MEASUREMENT

N = 1 THICKNESS	=	122
N = 2 THICKNE	=	124
N = 3 THICKNE	=	131

Tmeas = 20 s

LOCATE SPECIMEN
 TO MEASURE PRESS "GO"

FINAL RESULT

THICKNESS	MEASUREMENT
APPLICATION No	= 3
NI / Cu (μ)	= Coll.2
MEAN THACKNESS	= 128.2
STANDARD DEVIATION	= 4.66
LOWEST READING	= 134.7
HIGHEST READING	= 133.2
No. OF MEAS	= 3
MEASURING TIME(s)	= 30

SHINITE™ PBT

性質	METHOD	UNIT	D201	D201G15	D201G30	D202
比重	D792	--	1.31	1.39	1.52	1.40
含水率	D570	%	0.09	0.07	0.07	0.08
模收縮						
流動方向	D955	%	0.8 - 2.0	0.3 - 0.5	0.2 - 0.4	0.6 - 1.9
垂直方向			0.8 - 2.0	0.5 - 0.9	0.5 - 0.9	0.6 - 1.9
抗張強度	D638	kg/cm²	550	1000	1250	600
伸長率	D638	%	40	4	4	6
彎曲強度	D790	kg/cm²	850	1600	2100	900
彎曲模數	D790	kg/cm²	25000	52000	90000	26000
衝擊強度缺口 1/8" (23°C)	D256	kg x cm/cm	4	8	10	4
洛式硬度	D785	R	118	120	120	118
熱變形溫度	D648	°C	65	205	210	70
耐燃性	UL-94	--	HB	HB	HB	V0
介電強度	D149	KV/MM	15	15	20	15
介電常數	D150	--	3	3	4	3
體積電阻	D257	Ω-CM	1.00E+16	1.00E+16	1.00E+16	1.00E+16

性質	METHOD	UNIT	D202G15	D202G20	D202G30	E202G15	E202G30
比重	D792	--	1.49	1.53	1.62	1.50	1.61
含水率	D570	%	0.07	0.07	0.07	0.07	0.07
模收縮							
流動方向	D955	%	0.3 - 0.5	0.3 - 0.5	0.2 - 0.4	0.3 - 0.5	0.2 - 0.4
垂直方向			0.5 - 0.9	0.5 - 0.9	0.5 - 0.9	0.5 - 0.9	0.5 - 0.9
抗張強度	D638	kg/cm²	950	1100	1300	920	1300
伸長率	D638	%	4	4	4	4	3
彎曲強度	D790	kg/cm²	1600	1750	1950	1470	2000
彎曲模數	D790	kg/cm²	60000	70000	95000	56000	93000
衝擊強度缺口 1/8" (23°C)	D256	kg x cm/cm	6	7.5	9	5.5	8.5
洛式硬度	D785	R	120	120	120	120	120
熱變形溫度	D648	°C	200	205	210	205	210
耐燃性	UL-94	--	V0	V0	V0	V0	V0
介電強度	D149	KV/MM	20	20	20	20	20
介電常數	D150	--	3	4	4	3	4
體積電阻	D257	Ω-CM	1.00E+16	1.00E+16	1.00E+16	1.00E+16	1.00E+16

一般級	D201
玻璃纖維強化級	D201G15 D201G30
防火級	D202
玻纖強化防火級	D202G15-G30
玻璃纖維強化級E系列	E202G15-G30

D201, D201G15, D201G30, D202, D202G5-30 : UL File No. E107536 (M)

1. 以上數據僅供參考，實際數據以產品檢驗報告為準。

2. 如有任何特別需求，請洽營業人員，謝謝。



三环

宁波盛泰电子金属材料有限公司产品品质保证书

本保证书希妥善保管，如对我公司的产品品质有异议，持保证书在壹个月内与我公司联系，本公司将竭诚为您服务，本保证书盖章有效（复印件无效）

No 0803001697

客户名称: 宁波力洲铜业有限公司

结算单号: 00009294

发货日期: 2008-3-3

产品批号: 0802/23-76

产品名称: 黄铜带

产品牌号: H65

产品规格: 0.24X71mm

产品状态: Y-

产品数量: 4件

产品重量: 830.7KG

质保部长: 郑国辉

检验员: _____

执行标准: GB/T2059-2000

※ 化学成分 (%):

铜Cu	64.44	锌Zn	余量	铁Fe	0.020
锡Sn	—	磷P	—	铅Pb	0.004-0.004
锑Sb	—	硅Si	—	铋Bi	—
镍Ni	0.0040	锰Mn	—	铝Al	—
银Ag	—	砷As	—	杂质总和	≤0.3

※ 力学性能及工艺性能:

抗拉强度N/mm ²	480.5	延伸率%	22
杯突值mm	—	维氏硬度HV	—

※ 表面质量与公差 (mm)

※ 厚度公差: -0.01 宽度公差: _____ 表面质量: 合格

单位地址: 浙江省慈溪市杭州湾新区金溪路

EMAIL: shine@cn-shine.com

联系电话: 8008574311

邮编: 315336

FAX: 0574-63073218

网址: http://www.cn-shine.com



图 001

20/03 2014 15:42 FAX



三 环

宁波盛泰电子金属材料有限公司产品品质保证书

本保证书希妥若保管，如对我公司的产品品质有异议，持该证书在一个月内与我公司联系，本公司将竭诚为您服务，本保证书盖章有效（复印件无效）

No. 0712003328

客户名称：宁波海鲨实业有限公司

结算单号：0008022

发货日期：2007-12-3

产品批号：0711/12-115

产品名称：黄铜带

产品牌号：H65

产品规格：0.5X100mm

产品状态：Y

产品数量：5件

产品重量：1607.7 KG

质保部长：郑国强

检验员：04

执行标准：GB/T2059-2000

单位地址：浙江省慈溪市杭州湾新区金溪路

EMAIL：shine@cn-shine.com

化学成分 (%)

铜Cu	64.20	锌Zn	余量	铁Fe	0.031
锡Sn	—	磷P	—	铅Pb	0.005-0.006
锑Sb	—	硅Si	—	铋Bi	—
镍Ni	0.0077	锰Mn	—	铝Al	—
银Ag	—	砷As	—	杂质总和	≤0.3

力学性能及工艺性能：

抗拉强度N/mm ²	481.3	延伸率%	18.5
杯突值mm	—	维氏硬度HV	—

表面质量与公差 (mm)

厚度公差：-0.025

宽度公差：—

制单人：陈君

表面质量合格

填单日期：2007-12-3

FAG-1571-63073218

联系电话：8008674311 邮编：315336

网址：<http://www.cn-shine.com>

质保专用章

P1

08:32

2008.01.26

FAX NO.:

宁波长振铜业有限公司

NING BO CITY CHANGZHEN COPPER CO.,LTD

产品质量证明书

PRODUCTSQUALITY GUARANTEE

2008 年(YEAR) 1 月(MONTH) 3 日(DAY)

证明书号 GUARANTEE NO: 080103-1

(TO):

黄海铜品

订货合同 编 号 CONTRACT No.	产品名称及规格 INEM No & SPECIFICATION										实 发 REALDELIVERY			
	牌 号 CODE	状 态 CONDITION	名 称 NAME	规 格(mm) SPECIFICATION		长 度(mm) LENGTH		重 量(千克) WEIGHT (Kg)						
	Hphys	2	黄海铜品	547		/	/	4554.4	6PBB/PBDE	1033.10%	5000			
化 学 成 分 CHEMICAL COMPOSITION	元素 ELEMENT	铜 Cu	铅 Pb	铁 Fe	锡 Sn	铝 Al	镍 Ni	砷 As	镉 Cd	锌 Zn	铬 Cr ³⁺	汞 Hg	聚溴 联苯醚 PBB/PBDE	杂质总和 IMPURITY SUM
	含量 (%) Concentranion	(%)	2.92	0.330	0.286	0.0612	/	/	0.0040	余量	/	/	/	/
机 械 性 能 MACHINERY PROPERTY	抗拉强度 (σb) Mpa VOLITIMATE STRENGTH			延伸率(δ)% PERCENTAGE ELONGATION			硬 度 HV	制造方法 MANUFACTURE METHOD			炉号 Furnace No			
							/				12445179			

产品技术条件

ARTICLE TECH CONDITION

按照GB/T5231-2001标准制造

GB/T5231-2001 STANDRD MADE

检验员签字 INSPECTOR SIGNATURE: 张伟 质量检验公章 QUALITY INSPECTION SEAL

注: 客户对该批产品质量有异议, 请在该合格证书签发日起十日内提出, 逾期责任自负。



宝山钢铁股份有限公司
BAOSHAN IRON & STEEL CO., LTD.

制造厂：宝钢分公司

Manufacturer: BAosteel BRANCH

产品质量证明书 INSPECTION CERTIFICATE

上海市宝山区富锦路885号 邮编 201900
No.885 Fujin ROAD, BAOSHAN DISTRICT
201900 SHANGHAI, P. R. CHINA
TEL (021)26649104
FAX (021)26649104

订货单位 CUSTOMER	上海宝钢钢材贸易有限公司	产品名称 PRODUCT	冷轧钢带		
收货单位 PURCHASER	上海宝钢钢材贸易有限公司	代号 CUSTOMER'S NO.	000425	证书号 CERTIFICATE NO.	BGSAL0802240019200
标准 SPECIFICATION	Q/BQB 402 SPCC-SD FB PT.A-PW,A-PF,A	客户订单编号 CUSTOMER ORDER NO.			
		签发日期 DATE OF ISSUE	2008/02/24		
		许可证号 LICENSE NO.			合同号 CONTRACT NO.
					L8EB500653

序号 NO.	钢卷 / 捆包号 COIL/PACK NO.	件数 QTY	炉号 HEAT NO.	规格及重量 MATERIAL DESCRIPTION					化学成分 CHEMICAL COMPOSITION % (熔炼分析 HEAT ANALYSIS)										拉伸试验 TENSILE TEST (G.L=L 2)					弯曲 BEND TEST	*01 硬度 HRB	*06 杯突 HR	BH 值 mm MPa								
				厚度 THICK	宽度 WIDTH	长度 LENGTH	张数 SHEETS	重量 MASS (kg)	C	Mn	P	S	TAl	x10 ²	x10 ²	x10 ³	x10 ³	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	屈服 Y.S. MPa	抗拉 T.S. MPa	伸长 EL	%	值	值		
									x10 ²	x10 ²	x10 ³	x10 ³	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	x10	Y.S. MPa	抗拉 T.S. MPa	伸长 EL	%	值	值		
1 1	8940193701 274293	1	0.40 2020	COIL	4844	3	16	11	8	38																		231	357	40			OK	48	
2 2	8940193702 274293	1	0.40 1020	COIL	4831	3	18	11	8	38																		231	357	40			OK	48	
3 3	8940193703 274293	1	0.40 1020	COIL	4458	3	18	11	8	38																		231	357	40			OK	48	
合计 Total				3	14133																														

备注 REMARKS																													
注释 NOTES	Y.S.=YIELD STRENGTH T.S.=TENSILE STRENGTH EL=ELONGATION G.L.=GAUGE LENGTH L1=5.65SQRT(FO) L2=50MM L3=80MM L4=200MM L5=11.3SQRT(FO) *01:HRB *02:HRF *03:HR30T *04:HV *05:HR15T *06:ERICHSEN *07:HARDNESS																												
会验者 SURVEYOR TO	本产品已按上述要求进行制造和检验，其结果符合要求，特此证明。 WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE MATERIAL SPECIFICATION.																									 制造管理部部长 郑贻裕 MANAGER OF MANUFACTURE MANAGEMENT DEP.			



Material Safety Data Sheet

Product Name: SHINITE® PBT E202G# (#: 5~40% glass content)
Revision Number: 3
Version Date: 2007/7/24

Page:1/3

1. Chemical, Product and Company Identification	
PRODUCT	SHINITE® PBT E202G# (#: 5~40% glass content)
COMPANY	Shinkong Synthetic Fibers Corporation, Engineering Plastic Division, 8F, 123, Sec. 2, Nanking East Road, Taipei, Taiwan
PHONE	886-2-2507-1251, 886-3-493-2131
FAX	886-2-2506-5047, 886-3-491-5763
2. Composition/ Information on Ingredients	
Chemical Characterization : Polybutylene Terephthalate (PBT) (CAS# 30965-26-5) ISO 1043-4 Code number for Flame retardants: FR(17) Glass Fiber (CAS# 65997-17-3).	
3. Hazards Identification	
Hazardous Decomposition Products : Processing fumes evolved at recommended processing conditions contain trace levels of THF (tetrahydrofuran) and may also contain trace levels of hydrogen bromide.	
4. First Aid Measures	
If molten polymer contacts the skin or eyes, cool rapidly with cold water. DO NOT use solvent for removal. DO NOT attempt to remove the polymer from the skin! Obtain IMMEDIATE medical attention.	
5. Fire Fighting Measures	
Suitable - water spray and foam. Water is the best. Approved pressure demand breathing apparatus and protective clothing should be used for all fires.	
6. Accidental release measures	
Sweep up and dispose in proper containers to prevent slipping hazards.	



Material Safety Data Sheet

Product Name: SHINITE® PBT E202G# (#: 5~40% glass content)
Revision Number: 3
Version Date: 2007/7/24

Page:2/3

7. Handling and storage

Handling :

Follow recommendations in processing guide. Prevent contact with skin and eyes.
Provide adequate ventilation in molding work.

Storage :

Store in a cool and dry place. Keep containers tightly closed to prevent moisture absorption and contamination

8. Exposure Controls/ Personal Protection

Industrial Hygiene :

A continuous supply of fresh air to the workplace together with removal of processing fumes through exhaust systems is recommended.

Personal Protective Equipment :

Respiratory protection - dust mask

Eye protection - safety glasses

Hand protection - thermal protective gloves should be worn around molten plastic

9. Exposure Controls/ Personal Protection

Melting Point (°C) : 225°C

Density @ 25°C : 1.35 – 1.75 g/cm³

ASTM D 1505

Form : Granules

Vapor Pressure : Not applicable

Solubility in Water : Insoluble

Ignition Temperature (°C) : 450°C, estimated

10. Stability and Reactivity

Stability : Stable under recommended conditions of storage and handling.

Reactivity : Not reactive under recommended conditions of storage, handling, processing and use.

Thermal Decomposition : None under 400°C

Explosion : Not sensitive to impact and static discharge.



Material Safety Data Sheet

Product Name: SHINITE® PBT E202G# (#: 5~40% glass content)
Revision Number: 3
Version Date: 2007/7/24

Page:3/3

11. Toxicological information

Product not considered primary eye and skin irritant.

TOXIC : N/A

12. Ecological information

We recommend this material be disposed of by properly scrubbed incineration or recycling

Not expected to present any significant ecological problems.

13. Disposal considerations

Product is not a RCRA hazardous waste. Recycling is encouraged. Dispose of using good manufacturing practices under local regulations for your area.

14. Transport information

GGVSEE/IMDG Code :	UN No. : None
ICAO/IATA-DGR : Not Regulated	GGVE/GGVS :
RID/ADR :	ADNR :

DOT Hazard Class : Not Regulated

Proper Shipping Name : Not Regulated

Identification Number : Not Listed

TDGA : Not Listed

15. Regulatory Information

TSCA Status : This product complies with Chemical Substance Inventory requirements of the US EPA Toxic Substances Control Act (TSCA).

WHMIS Classification : Not a controlled product.

16. Other information

SHINITE is a registered trademark of the SHINKONG SYNTHETIC FIBERS CO.

制品安全资料表(MSDS)

公司名称: 宁波兴业电子铜带有限公司

地 址: 浙江慈溪市经济开发区杭州湾新区金溪路

服务部门: 质量技术服务部 负责人: 丁昂炜

电 话: 0574-63073293 传 真: 0574-63073218

1. 制品名: 普通黄铜

2. 物质特性

单一物质/混合物区别: 混合物

化学名: 铜锌合金

牌号: H65

成分及含量:

合金成分	含有量 (%)
------	---------

铜 (Cu)	63.5~68.0
--------	-----------

锌 (Zn)	余量
--------	----

牌号: H70

成分及含量:

合金成分	含有量 (%)
------	---------

铜 (Cu)	68.5~71.5
--------	-----------

锌 (Zn)	余量
--------	----

3. 危险有害性种类

种类名称: 急性毒性

危险性: 无

有害性: 铜、锌吸入会导致呼吸有刺激、灼热症状

4. 救急措施

进入眼睛时 进入眼睛不要用手擦, 不要闭着眼睛, 用清水清洗, 最少15分钟, 如有其它异状时, 请马上去看医生。

接触皮肤时 碰到皮肤要用石灰水清洗, 用清水清洗时间长一点, 加热变成粉末碰到皮肤, 有轻微的灼伤感, 用大量的水清洗, 冷却被灼伤的部分。

吸入鼻子时 切割时的粉尘或粉末吸入, 要保持空气新鲜, 流通, 恒温, 安静, 有必要时找医生诊断。

嘴巴食入时 用清水漱口, 清洗干净, 可能会有呕吐的感觉, 严重的情

况，马上去就医。

5、火灾时的措施

灭火方法： 不燃性物质，不适用。

灭火剂： 不燃性物质，不适用。

6、泄漏时措施

燃性物质，不适用。

7、取放及保管上注意：

取放： 1、较重物，落下时要请注意。

2、取放时要轻拿轻放，不要随便乱放。

3、有弹性，易切伤皮肤，特别是要保护好眼睛。

4、切断面较锋利，尽量不要直接用手拿，带手套。

8、暴露防止措施

管理浓度：作为混合物的规定没有。

但是长期暴露，有可能会有隐患。

设备对策：通常情况下不需要，当有粉末产生场合，一定要有排气装置。

劳保用品：

呼吸用保护具：尘埃、细小粉末存在的场合，要有防护口罩。

保护手袋：因为有可能损伤双手，所以要带手袋或手套。

保护衣：按操作流程，有需要的情况下要穿保护衣、安全鞋。

MATERIAL SAFETY DATA SHEET(物质安全数据表)

一、物料与供货商资料:

物品名称: 螺丝、铆钉铜材
物品代码: C3771 C3603
化学名称: Cu-Sn-Zn 金属合金
类 别: 金属混合物
供商名称: 慈溪市骅杰电子有限公司
供商地址: 浙江省慈溪市慈东工业园区 B74
联络电话: 0574-63215395
传真: 0574-63215396
供商网址: www.huajie.cc
紧急联络电话: 0769-85429395

二、物质构成成份:

化学名称	铜 (Cu)
CAS 编号	7440-50-8
比例	C3771 (Cu+Sn+Zn) >99.5% C3603 (Cu+Sn+Zn) >99.7%

化学名称	锡 (Sn)
CAS 编号	7440-31-5
比例	C3771 5.5-7.0% C3603 7.0-9.0%

化学名称	锌 (Zn)
CAS 编号	
比例	

OHSA: 本产品在固体时不具危险性。其粉尘及烟雾: 具有危险性

三、危害识别数据:

警告:
长时间暴露粉尘及烟雾的工作环境下, 对于眼睛、呼吸系统、皮肤会造成刺激伤害, 必须配戴保护器具, 包括护目镜, 适当衣物, 必须要保护全部身体, 身体被接触部位, 必须彻底清洗干净。

种类的名称	铜、锡、锌之混合物
危险标示类别	金属粉尘或烟雾对皮肤、眼睛造成刺激性且对肺部有毒性, 但金属成品本身不具危害性。
危险系数 (粉尘及烟雾)	健康: 1; 可燃: 0 (0=低、4=极高)

四、急救措施:

对于粉尘及烟雾危害:

眼睛接触	以大量清净水冲洗上下眼皮内部 (至少 15 分钟), 若眼睛被刺激不适者, 立即送医院检查。
食入时	大量喝水并催吐, 迅速送医院检查

皮肤接触	以清水清洗干净
吸入时	送至通风良好较阴凉处休息，以毛布保暖，严重者迅速送医院检查诊断。

五、火灾及爆炸危害资料：

燃烧性资料：

爆炸性	无
可燃性	无
燃烧性	无
闪火点	不适用
自燃性	不适用

灭火剂：

灭火方式：使用灭火剂于材料表面即可

消防建议：

注意粉尘可能导致爆炸或产生可燃能气体

六、泄漏的处置：

本产品在加工时产生粉尘时，有可能产生爆炸，必须将火源移除，也唯有粉尘型态时才可能产生泄露，所以必须装设吸尘装备，过滤空气中之粉尘，以降低其粉尘浓度。

泄露于空气中	不适用
泄露于水中	不适用
泄露于地面中	不适用

七、处置和储藏：

处置：操作处所需整理整顿，干燥通风，以避免灰尘、潮湿

储藏：避免放置于潮湿或酸性物质或酸性气体之场所

八、预防措施：

个人防护设备：工作制服	
呼吸保护：口罩	
手部保护：防护手套	
眼部保护：配戴防护目镜	
皮肤和身体：工作制服	
卫生措施：1、工作场所严禁吸烟或饮食	
2、处理本物质后须彻底洗手	
3、维持工业场所清洁	

九、物理和化学属性：

外观	浅黄色光泽的固体金属
熔点	1000-1075°C
沸点	无资料
比重	8.9
蒸气压	不适用
溶解度	不适用
PH 值 25°C	不适用

十、安全性和反应性:

非活性物质

十一、毒性信息:

严重毒物: 无

局部影响: 无

致过敏性: 无

持续长期: 无

特定影响: 无

十二、生态信息:

本产品的成品对生态不具毒性:

分解性: 无资料

突变性: 本产品没资料显示会造成突变性

鱼毒性: 水中的铜浓度, 在 0.015-3.0mg/l, 尤其中软水中, 会有报告会对许多种类的鱼、贝壳类的动物及软体动物、浮游生物具有毒性。

十三、废弃处理:

本产品不属于危害性废弃物, 须丢弃时可以委托回收商予以回收再生处理。

十四、运输资料:

运送时本产品不要直接与水接触, 并且要注意会有掉落危险存在。

十五、法规资料:

通常无特定法令规定, 但是在会产生粉尘的场所必须遵守劳工安全卫生法劳工作业环境空气中有害物质容许浓度标准。

十六、其它资讯:

本 MSDS 内容资料应被所有使用、运输、储存或使用本产品之公司/人员充分了解与接受, 并其应用使用、加工、制程式管理与本产品有关之作业规定上, 本 MSDS 资料内容在编订时尽可能将最新资料纳入。



Test Report

No. SHAEC1000386522

Date: 22 Jan 2010

Page 1 of 5

NINGBO CONNFLY ELECTRONIC CO.,LTD
EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO,CHINA

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

SGS Job No. : SP10-001324 - SH
Model No. : PBT PLASTIC
Date of Sample Received : 18 Jan 2010
Testing Period : 18 Jan 2010 - 22 Jan 2010
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).

Attention: To check the authenticity of testing /inspection report & certificate, pls. contact tel: (86-755)83071443 email: CN Doccheck@sgs.com

Signed for and on behalf of
SGS-CSTC Ltd.

Hao Jinyu, Sandy
Lab Manager

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e sgs.china@sgs.com

SHCHEM 3083511

Member of the SGS Group (SGS SA)

Test Report

No. SHAEC1000386522

Date: 22 Jan 2010

Page 2 of 5

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA10-003865.022	White plastic pellet

Remarks :

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

RoHS Directive 2002/95/EC

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 Colorimetric Method using UV-Vis.
- (5) Determination of PBBs / PBDEs content by GC-MS.

Test Item(s)	Limit	Unit	MDL	022
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	19
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1,000	mg/kg	2	ND
Sum of PBBs	1,000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1,000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND

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Test Report

No. SHAEC1000386522

Date: 22 Jan 2010

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Test Item(s)

	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>022</u>
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

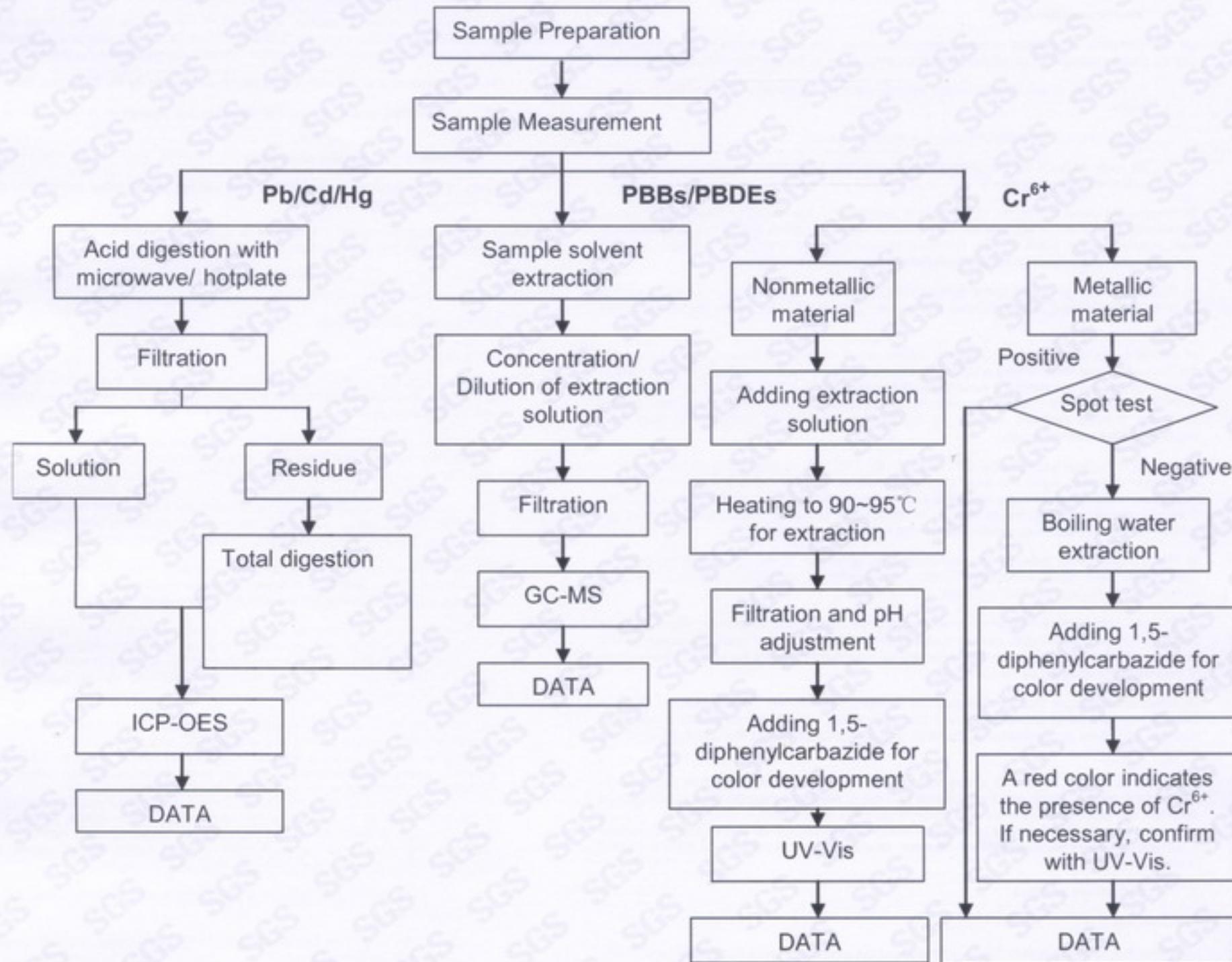
Notes :

- (1) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC



ATTACHMENTS

- 1) Name of the person who made measurement: Jeff Zhang/Even Xu/Frank Fang/Elim Lin
- 2) Name of the person in charge of measurement: Terry Wang/Phoebe Shen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ and PBBs/PBDEs test method excluded)



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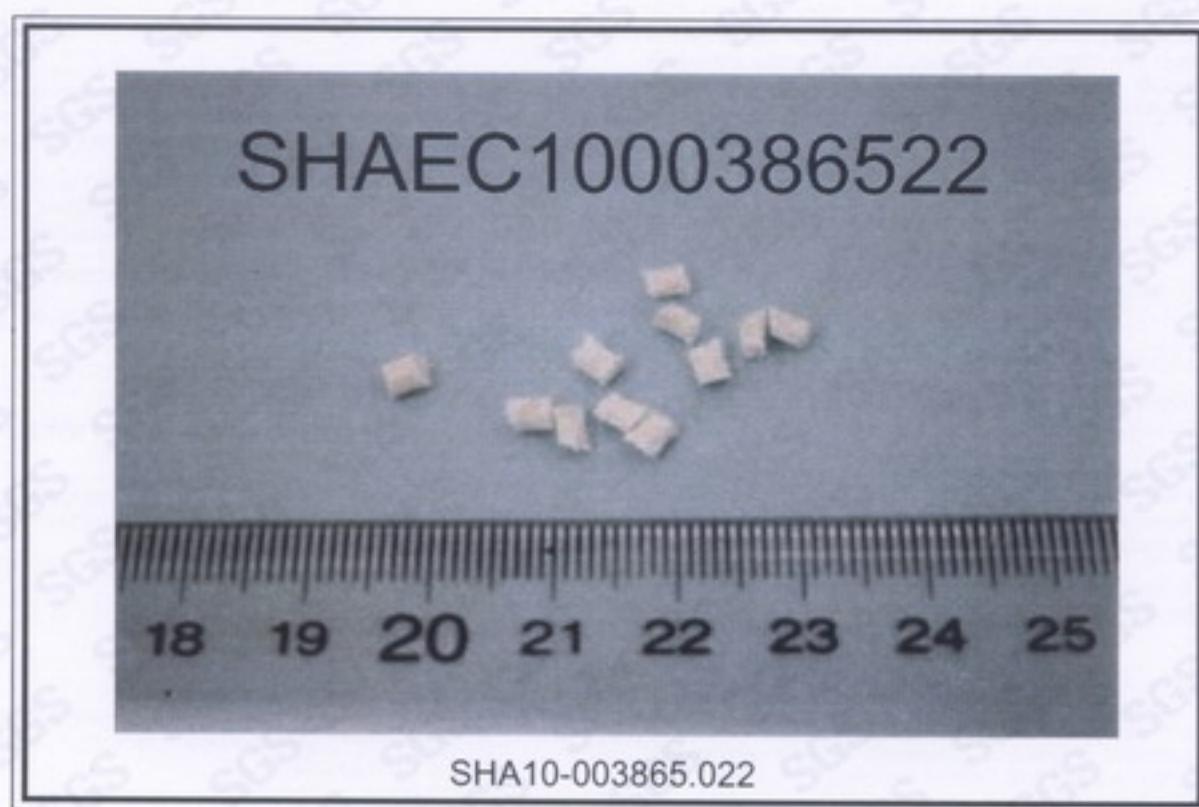
Test Report

No. SHAEC1000386522

Date: 22 Jan 2010

Page 5 of 5

Sample photo:



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*** End of Report ***



Test Report

No. SHAEC1000386512

Date: 22 Jan 2010

Page 1 of 4

NINGBO CONNFLY ELECTRONIC CO.,LTD
EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : 0.2T BRASS

SGS Job No. : SP10-001324 - SH
Model No. : 0.2T BRASS
Date of Sample Received : 18 Jan 2010
Testing Period : 18 Jan 2010 - 22 Jan 2010
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).

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Signed for and on behalf of
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Hao Jinyu, Sandy
Lab Manager

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SHCHEME 3062838

0000016675

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Test Report

No. SHAEC1000386512

Date: 22 Jan 2010

Page 2 of 4

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA10-003865.012	Yellow metal tape

Remarks :

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

RoHS Directive 2002/95/EC

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	012
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	14
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◊	Negative

Notes :

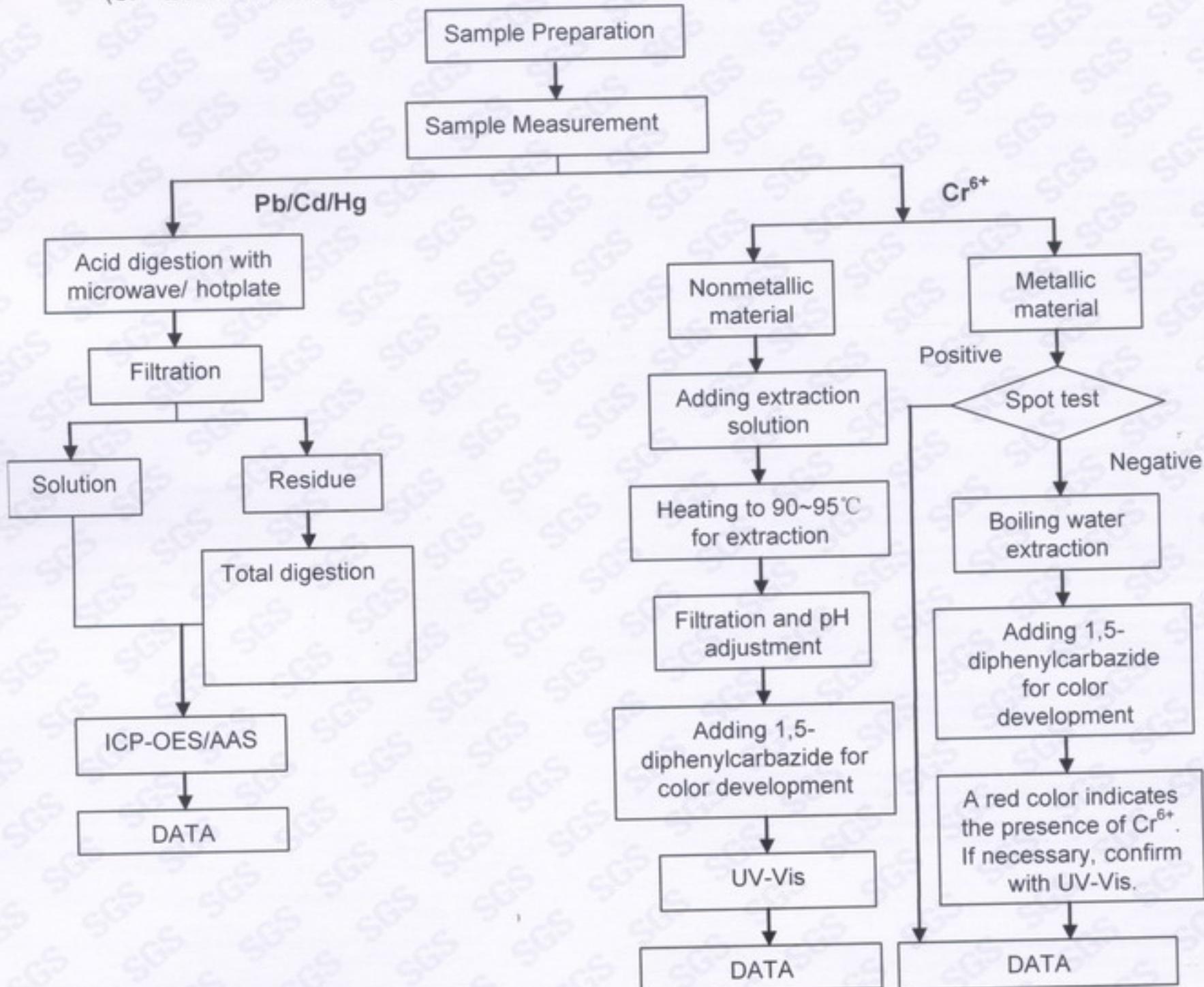
- (1) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
- (2) ◊ Spot-test:
Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or 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.
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.

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ATTACHMENTS

- 1) Name of the person who made measurement: Jeff Zhang/Even Xu/Frank Fang/Elim Lin
- 2) Name of the person in charge of measurement: Terry Wang/Phoebe Shen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)



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Test Report

No. SHAEC1000386512

Date: 22 Jan 2010

Page 4 of 4

Sample photo:



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SHCHEMA 3062841

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Test Report

No. SHAEC1000386514

Date: 22 Jan 2010

Page 1 of 4

NINGBO CONNFLY ELECTRONIC CO.,LTD
EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : 0.6T BRASS

SGS Job No. : SP10-001324 - SH
Model No. : 0.6T BRASS
Date of Sample Received : 18 Jan 2010
Testing Period : 18 Jan 2010 - 22 Jan 2010
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).

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Hao Jinyu, Sandy
Lab Manager

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Test Report

No. SHAEC1000386514

Date: 22 Jan 2010

Page 2 of 4

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA10-003865.014	Yellow metal tape

Remarks :

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

RoHS Directive 2002/95/EC

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.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>014</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	177
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◊	Negative

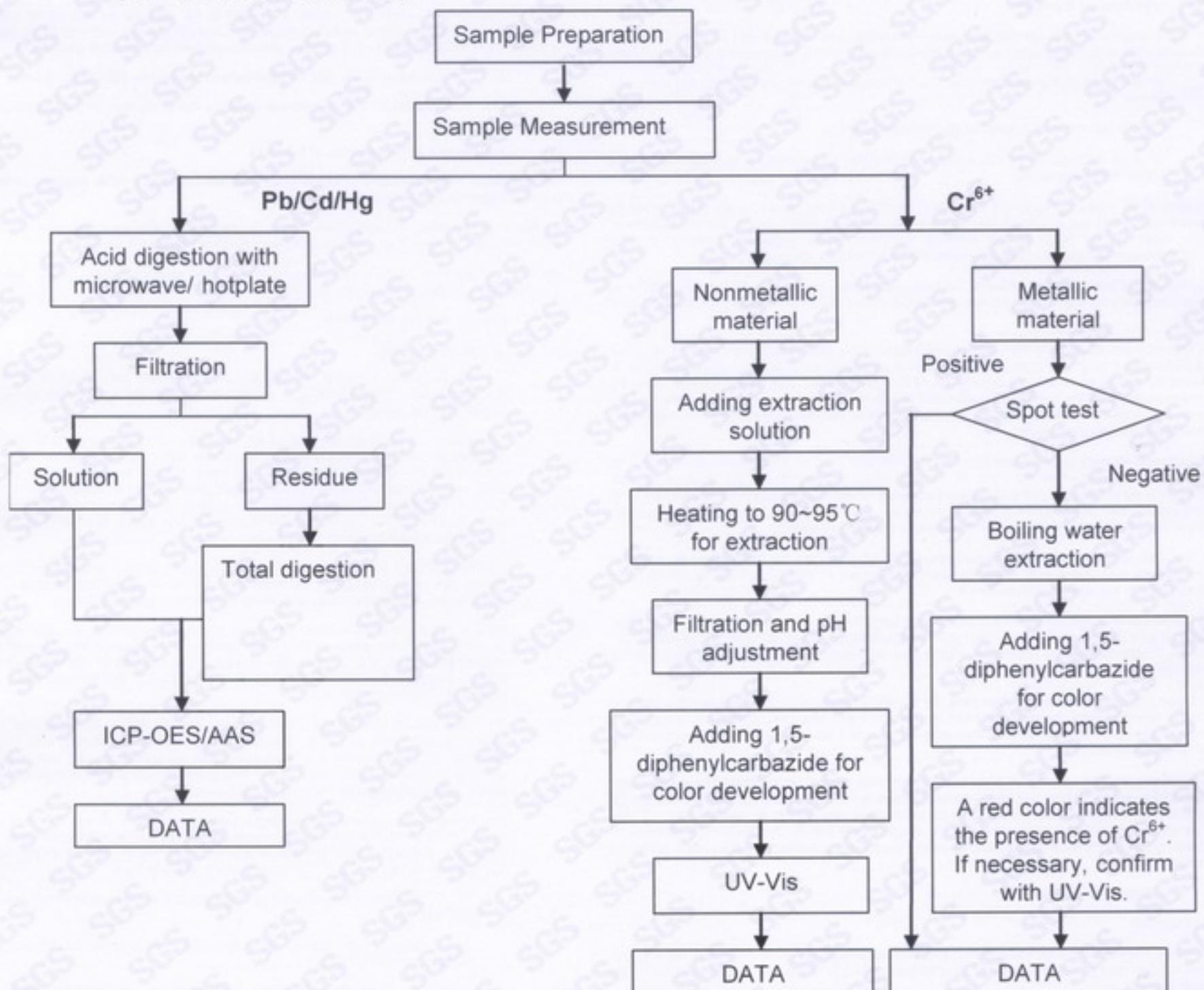
Notes :

- (1) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
- (2) ◊ 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 is Negative or 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.
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.



ATTACHMENTS

- 1) Name of the person who made measurement: Jeff Zhang/Even Xu/Frank Fang/Elim Lin
- 2) Name of the person in charge of measurement: Terry Wang/Phoebe Shen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)



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Test Report

No. SHAEC1000386514

Date: 22 Jan 2010

Page 4 of 4

Sample photo:



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SHCHEMA 3083535

Member of the SGS Group (SGS SA)



Test Report

No. SHAEC1000386515

Date: 22 Jan 2010

Page 1 of 4

NINGBO CONNLY ELECTRONIC CO.,LTD
EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO,CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : 0.4T STEEL

SGS Job No. : SP10-001324 - SH
Model No. : 0.4T STEEL
Date of Sample Received : 18 Jan 2010
Testing Period : 18 Jan 2010 - 22 Jan 2010
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).

Attention: To check the authenticity of testing /inspection report & certificate, pls. contact tel: (86-755)83071443 email: CN_Doccheck@sgs.com

Signed for and on behalf of
SGS-CSTC Ltd.

Hao Jinyu, Sandy
Lab Manager

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Member of the SGS Group (SGS SA)



Test Report

No. SHAEC1000386515

Date: 22 Jan 2010

Page 2 of 4

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA10-003865.015	Silvery metal tape

Remarks :

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

RoHS Directive 2002/95/EC

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.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>015</u>
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 document 2005/618/EC amending RoHS directive 2002/95/EC

(2) ◊ 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 is Negative or 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.
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.

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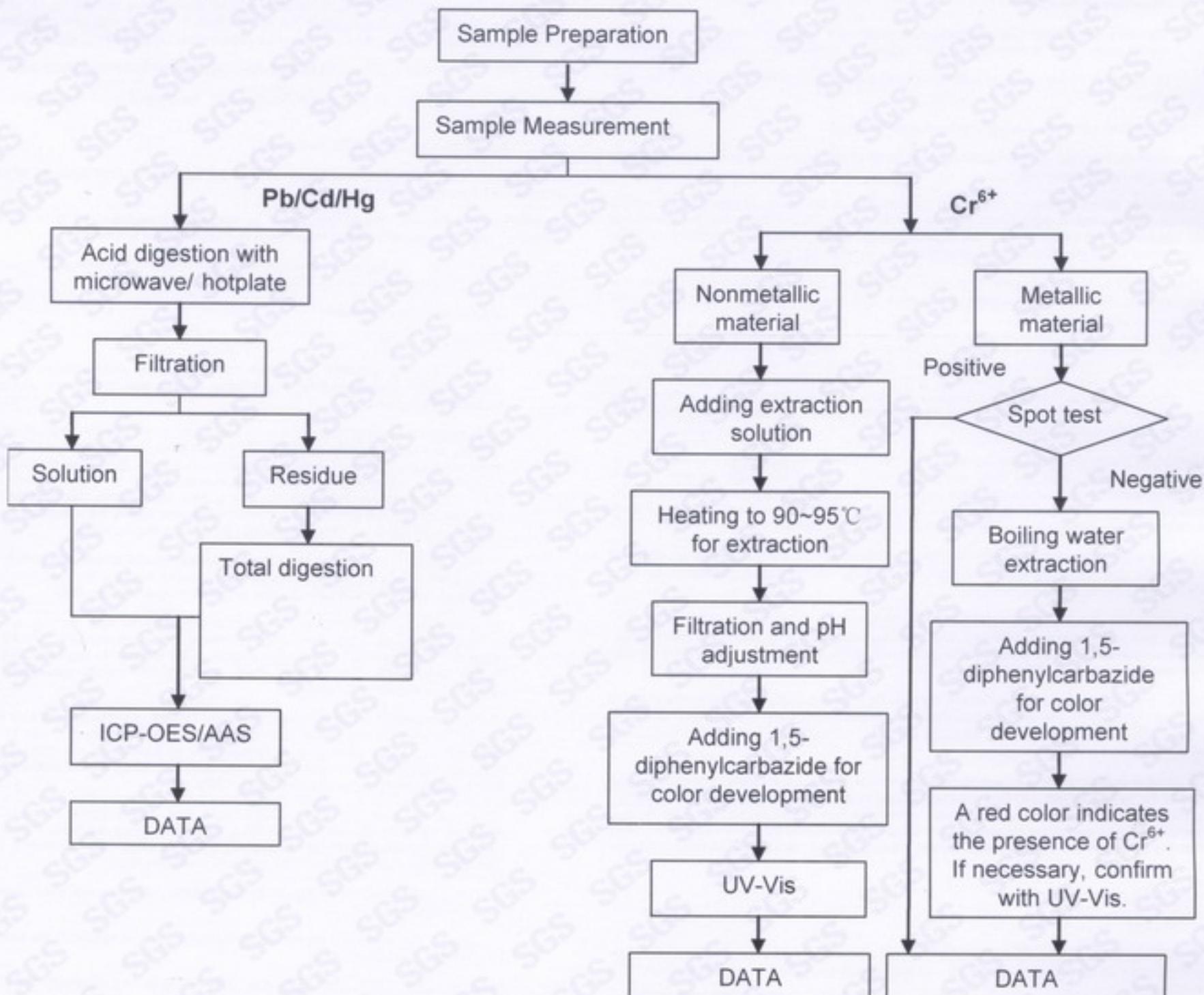
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sgs_china@sgs.com

SHCHEM 3083524

ATTACHMENTS

- 1) Name of the person who made measurement: Jeff Zhang/Even Xu/Frank Fang/Elim Lin
- 2) Name of the person in charge of measurement: Terry Wang/Phoebe Shen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)



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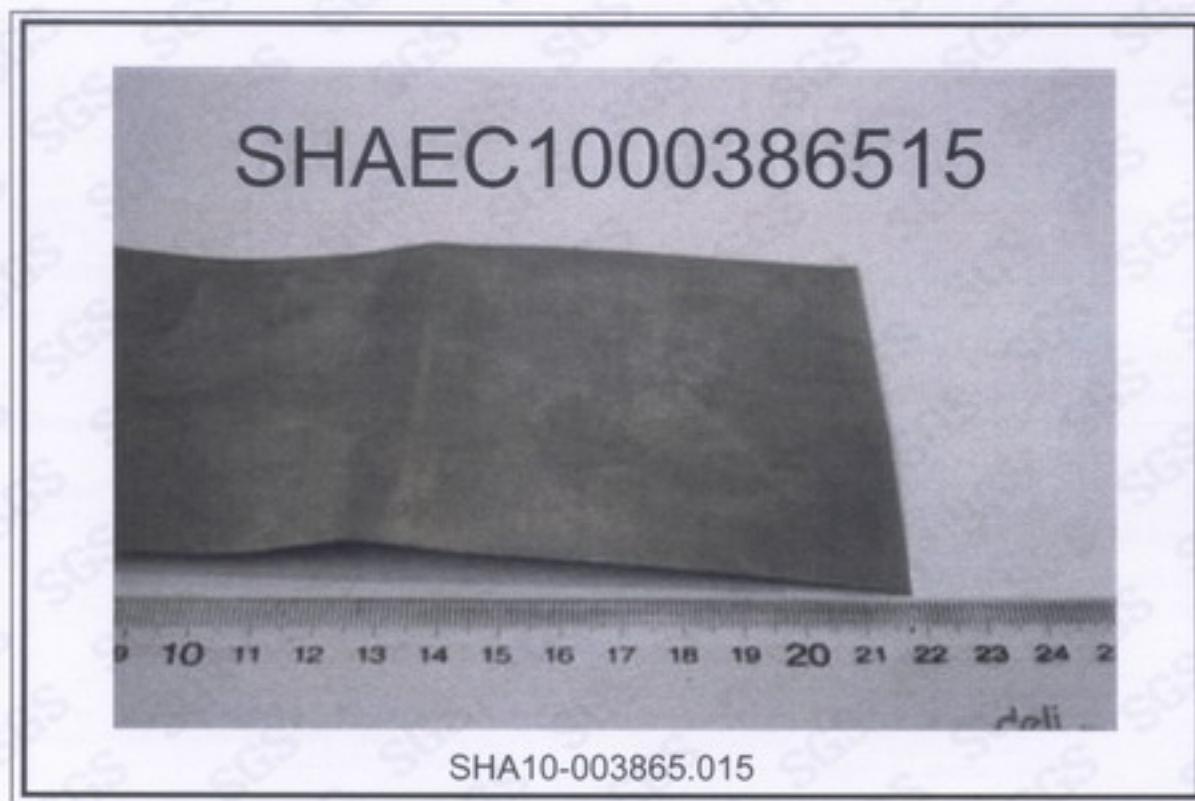
Test Report

No. SHAEC1000386515

Date: 22 Jan 2010

Page 4 of 4

Sample photo:



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SHCHEME 3083522

Member of the SGS Group (SGS SA)

Test Report

No. SHAEC1000386505

Date: 22 Jan 2010

Page 1 of 4

NINGBO CONNFLY ELECTRONIC CO.,LTD
EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO,CHINA

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

SGS Job No. : SP10-001324 - SH

Model No. : BOLT

Date of Sample Received : 18 Jan 2010

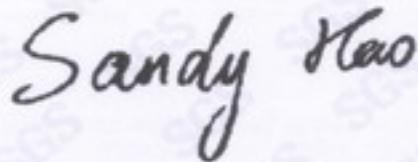
Testing Period : 18 Jan 2010 - 22 Jan 2010

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).

Signed for and on behalf of
SGS-CSTC Ltd.



Hao Jinyu, Sandy
Lab Manager

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SHCHEM 3081337

Member of the SGS Group (SGS SA)

Test Report

No. SHAEC1000386505

Date: 22 Jan 2010

Page 2 of 4

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	SHA10-003865.005	Silvery metal

Remarks :

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

RoHS Directive 2002/95/EC

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	005
Cadmium (Cd)	100	mg/kg	2	27
Lead (Pb)	1,000	mg/kg	2	26068#
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◊	Negative

Notes :

- (1) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
- (2) ◊ 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 is Negative or 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.
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.

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T E&E (86-21) 61402553 F E&E (86-21) 64953679
HL: (86-21) 61402594 HL: (86-21) 54500353

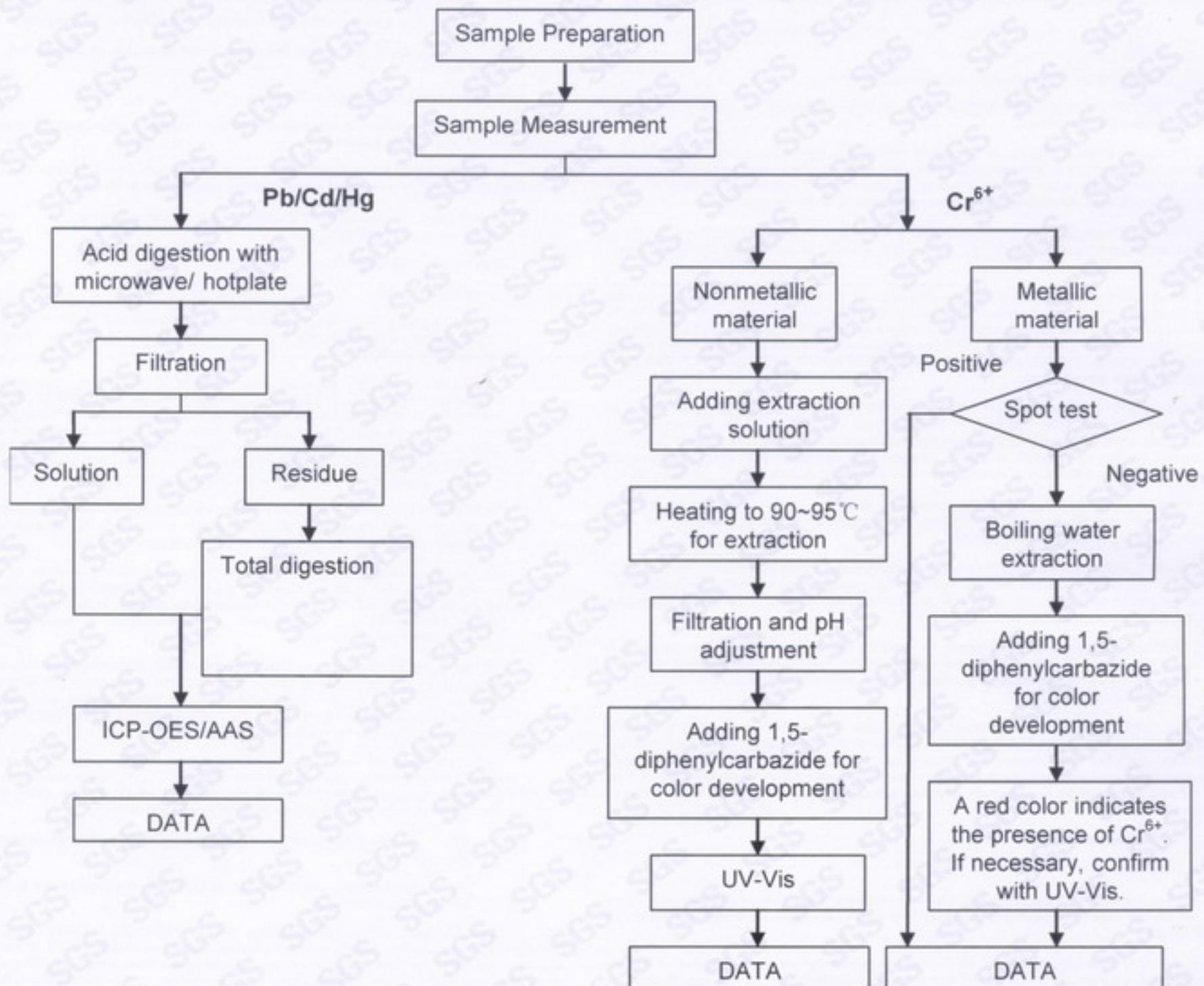
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sgs.china@sgs.com

SHCHEMA 3081338

(3) #=Exceed the limit

ATTACHMENTS

- 1) Name of the person who made measurement: Jeff Zhang/Even Xu/Frank Fang/Elim Lin
- 2) Name of the person in charge of measurement: Terry Wang/Phoebe Shen
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)



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Test Report

No. SHAEC1000386505

Date: 22 Jan 2010

Page 4 of 4

Sample photo:



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*** End of Report ***

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SGS-JTCC Standards Technical Service (Shanghai) Co.,Ltd
Testing Center

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SHCHEMA 3081340

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Test Report

No. SHAEC1000386502

Date: 22 Jan 2010

Page 1 of 4

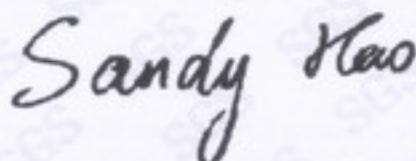
NINGBO CONNFLY ELECTRONIC CO.,LTD
EAST INDUSTRY ZONE KUANGYAN TOWN CIXI NINGBO,CHINA

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

SGS Job No. : SP10-001324 - SH
Model No. : RIVET
Date of Sample Received : 18 Jan 2010
Testing Period : 18 Jan 2010 - 22 Jan 2010
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).

Signed for and on behalf of
SGS-CSTC Ltd.



Hao Jinyu, Sandy
Lab Manager

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SGS-CSTC Standards Technical Services (Shanghai) Co.,Ltd
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SHCHEM 3081329

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Test Report

No. SHAEC1000386502

Date: 22 Jan 2010

Page 2 of 4

Test Results :**Test Part Description :**

Specimen No.	SGS Sample ID	Description
1	SHA10-003865.002	Silvery metal

Remarks :

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

RoHS Directive 2002/95/EC

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.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>002</u>
Cadmium (Cd)	100	mg/kg	2	13
Lead (Pb)	1,000	mg/kg	2	27728#
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◊	Negative

Notes :

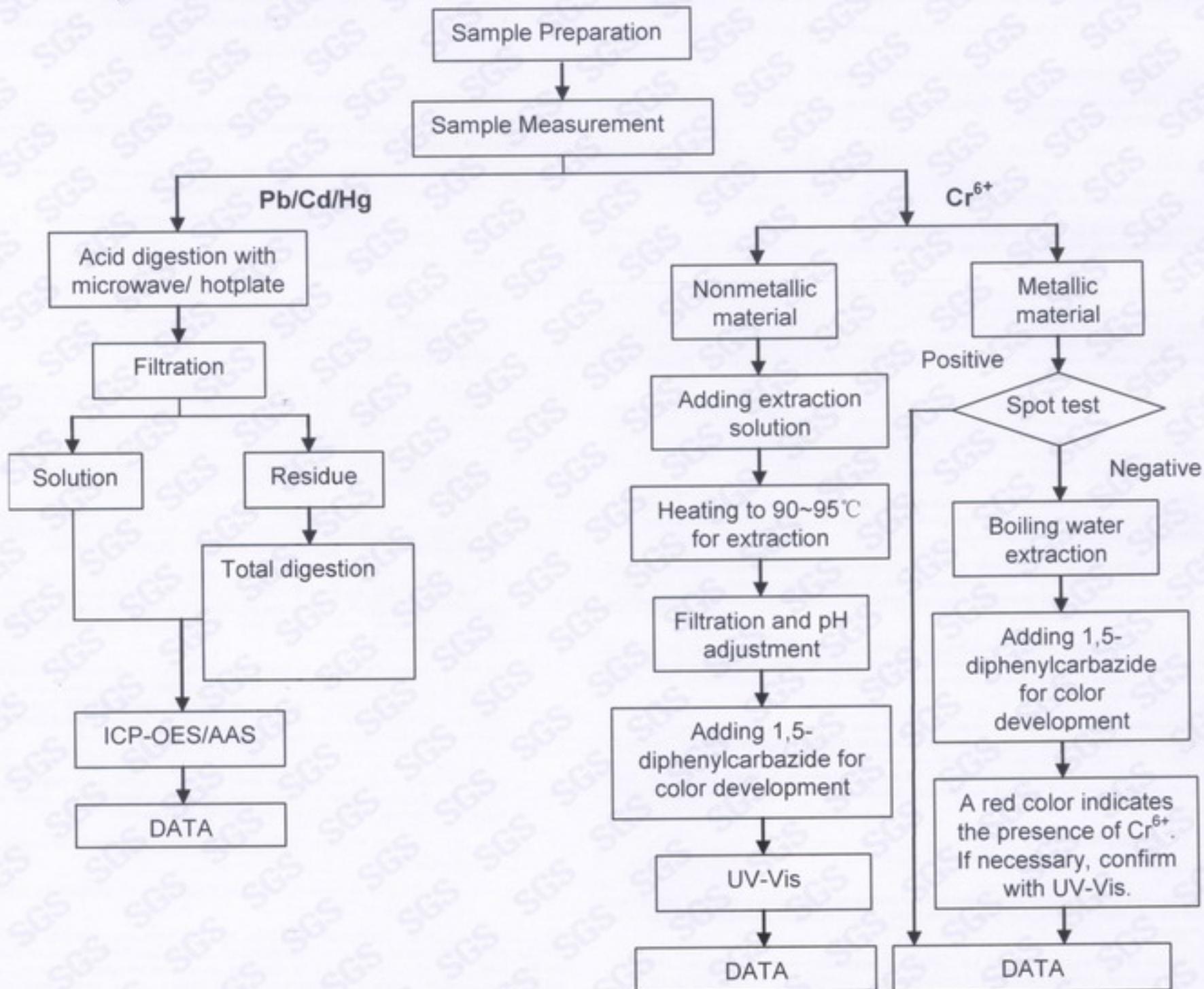
- (1) The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2002/95/EC
- (2) ◊ Spot-test:
Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or 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.
- 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.



(3) #=Exceed the limit

ATTACHMENTS

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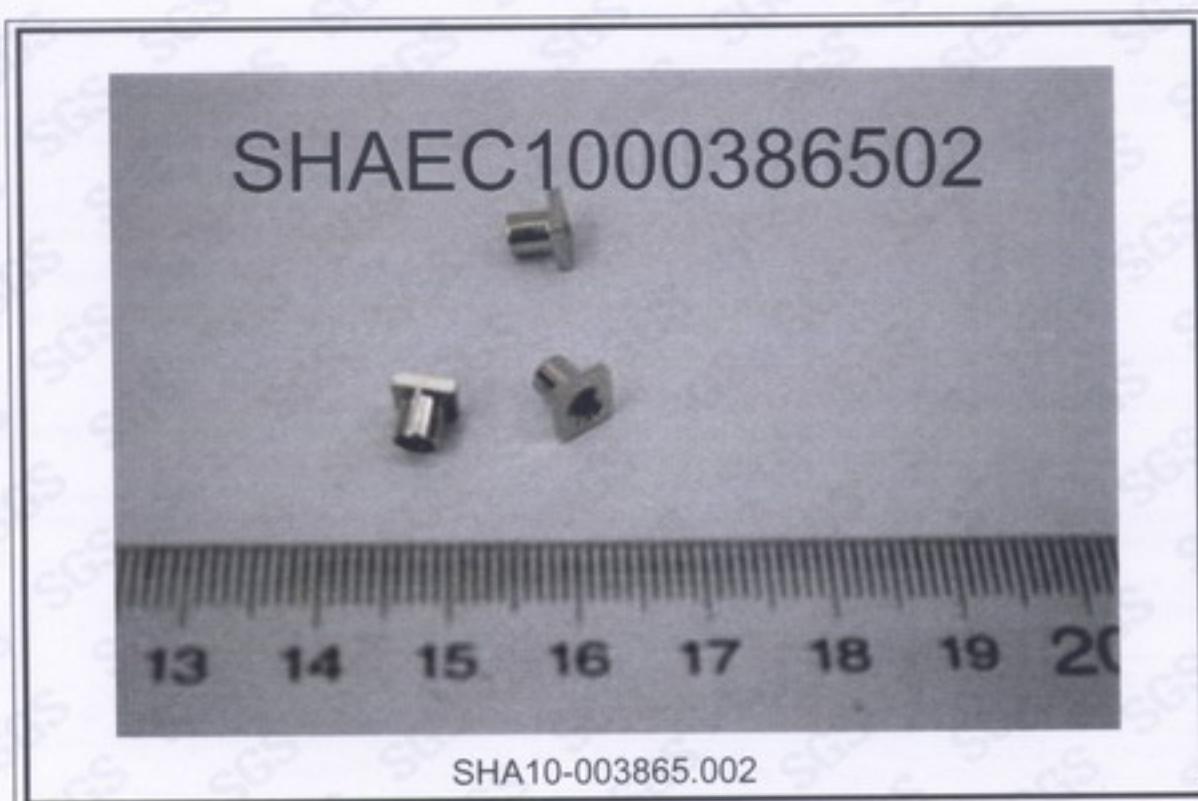
Test Report

No. SHAEC1000386502

Date: 22 Jan 2010

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Sample photo:



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SHCHEMA 3081332

Member of the SGS Group (SGS SA)

SHINKONG SYNTHETIC FIBERS CORPORATION
CHUNGLI TECHNICAL CENTER
TAIWAN

Subject : Certification of Product Safety

Dear Sir :

This is to certify that our products:

SHINITE® PBT (Polybutylene Terephthalate), PET, NYLON, PP and SHINBLEND® ALLOY comply with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2002/95/EC, and none of the following substances are intentionally used in these products.

- Cadmium (Cd) and its compounds
- Lead (Pb) and its compounds
- Chromium VI(Cr^{+6}) and its compounds
- Mercury (Hg) and its compounds
- Polybrominated biphenyls (PBB)
- Polybrominated diphenyl ethers (PBDE)
- Polychlorinated biphenyls (PCB)
- Polychlorinated naphthalenes (PCN)
- Polychlorinated terphenyls(PCT)
- Chlorinated paraffins (CP)
- Organic tin compounds
- Asbestos
- Azo compounds
- Formaldehyde
- Polyvinyl chloride(PVC) and PVC blends
- Ozone depleting chemicals(CFC's & HCFC's)
- Tetrabromobisphenol-A-bis-(2,3-dibromopropylether) (TBBP-A-bis)
- Tetrabromobisphenol-A (TBBP-A)
- Phthalates
- PFOS, PFOA
- Polyaromatic Hydrocarbons(PAHs)
- Beryllium oxide; Beryllium copper
- Substances depleting the ozone layer (Hydrofluorocarbon[HFC], Perfluorocarbon[PFC])
- 2-(2H-benzotnazol-2-yl)-4,6-bis(1,1-dlmethylthyl)-phenol(UV320 , Cas No.3848-71-7)



2008/9/8

None of the 16 SVHC substances listed below are intentionally used in our products.

Substance identification			Authority	Reason for proposing	Date of publication	Deadline for commenting
Substance name	CAS number	EC number				
Anthracene	120-12-7	204-371-1	Germany	PBT	1930/6/8	2014/8/8
4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	Germany	CMR	1930/6/8	2014/8/8
Dibutyl phthalate	84-74-2	201-557-4	Austria	CMR	1930/6/8	2014/8/8
Cyclododecane	294-62-2	206-33-9	France	PBT	1930/6/8	2014/8/8
Cobalt dichloride	7546-79-9	231-589-4	France	CMR	1930/6/8	2014/8/8
Diarsenic pentoxide	1303-28-2	215-116-9	France	CMR	1930/6/8	2014/8/8
Diarsenic trioxide	1327-53-3	215-481-4	France	CMR	1930/6/8	2014/8/8
Sodium dichromate, dihydrate	7789-12-0	-	France	CMR	1930/6/8	2014/8/8
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	Netherlands	vPvB	1930/6/8	2014/8/8
Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0	Sweden	CMR	1930/6/8	2014/8/8
Hexabromocyclododecane (HBCDD)	25637-99-4	247-148-4	Sweden	PBT	1930/6/8	2014/8/8
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5	United Kingdom	PBT	1930/6/8	2014/8/8
Bis(tributyltin)oxide	56-35-9	200-268-0	Norway	PBT	1930/6/8	2014/8/8
Lead hydrogen arsenate	7784-40-9	232-064-2	Norway	CMR	1930/6/8	2014/8/8
Triethyl arsenate	15606-95-8	427-700-2	Norway	CMR	1930/6/8	2014/8/8
Benzyl butyl phthalate	85-68-7	201-622-7	Austria	CMR	1930/6/8	2014/8/8

ABBREVIATIONS

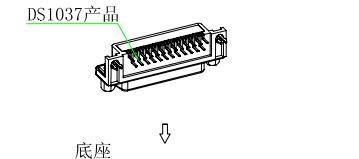
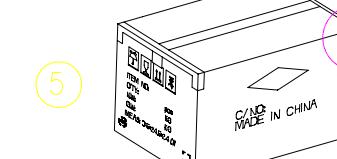
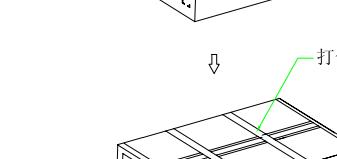
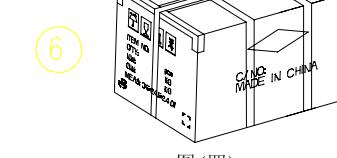
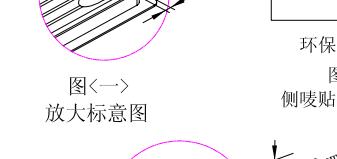
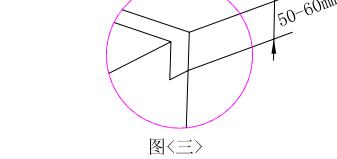
- Cat. 1 & 2 CMR: Category 1 & 2 Carcinogen, Mutagen, & toxic for Reproduction
- ECHA: European Chemical Agency
- PBT: Persistent Bioaccumulative Toxic
- REACH: Registration, Evaluation, Authorization and restriction of Chemicals
- SVHC: Substances of Very High Concern (include CMR, PBT, vPvB or substances of equivalent concern – E.g. endocrine disruptor)
- vPvB: very Persistent very Bioaccumulative

Should you have any questions, please feel free to contact me. Thanks.

Yours truly,
J. K. Liew
ENPLA division, QA Section Chief



产品包装作业规范

文件编号	版次	制作日期	适用产品系列	客户类别	修制定记录																																																																	
PS-DS1037-001	C	2009-03-26	DS1037(吸塑盒包装)	普通型	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">版本</td><td style="width: 90%;">修制定记录</td></tr> <tr> <td>A</td><td>新发行</td></tr> <tr> <td>B</td><td>更改纸箱尺寸及包装数量</td></tr> <tr> <td>C</td><td>更改纸箱尺寸及吸塑盒尺寸</td></tr> </table>	版本	修制定记录	A	新发行	B	更改纸箱尺寸及包装数量	C	更改纸箱尺寸及吸塑盒尺寸																																																									
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一. 作业流程图:																																																																						
<pre> 按照BOM领取包材 ↓ 将制作OK的成品放置包装专用区域 ↓ 按照包装明细点数 ↓ 将空纸箱先用透明胶封口一边 ↓ 将包装好的产品按照统一方向放入纸箱内 ↓ 确认数量无误后使用透明胶封口 ↓ 根据要求,封好口后进行贴标签或唛头作业 </pre>																																																																						
二. 作业说明:																																																																						
<ol style="list-style-type: none"> 1. 根据物料清单备好所需包材. 2. 将已检验合格产品落在吸塑凹凸槽内, 公母对插的一面朝吸塑盒底部, 并统一方向装入吸塑盒内. 3. 确定吸塑盒同一摆放的方向及数量无误后, 取一吸塑盒上盖将底座完全重合扣好, (然后取一订书机分别在吸塑盒的两长边分为三等分的位置上钉两枚订书钉, 在吸塑盒的两短边(居中位置)整齐各订上一枚书钉) 钉好后贴上环保标签和数量标签如图<一>所示. 4. 把钉好的吸塑盒装入外箱内, 吸塑盒标签朝同一方向摆放好, 如有客户需要求加附螺丝, 用PE袋包装好的附螺丝与产品数量相对应, 放入吸塑盒最上层, 将纸箱的最上层和最下层各放入干燥剂四袋. 5. 确定包装数量无误后用透明胶以“工”字封好箱, 外箱标签贴在右上角如图<二>所示. (如有其它标签则直接往环保标签上堆积贴示, 靠右对齐, 上下间隔5mm) 胶带伸出长度为50-60mm如图<三>所示. 6. 出货时检查无误后必须用打包机打好打包带, 打包带位置如图<四>所示. 7. 详细包装明细见第2/2页, 栈板堆放示意图请见附页. 																																																																						
三. 注意事项:																																																																						
<ol style="list-style-type: none"> 1. 每盒每箱内产品不可多装; 少装; 混装. 2. 在未装满之纸箱须使用泡棉或其它不影响品质之物品填充或做拼箱处理, 且在纸箱唛头或标签上注明尾数. 3. 确认所使用包材无误. 4. 外箱包装上产品系列号文字及其它文字书写应规范统一, 字体清楚工整. 5. 透明胶带粘贴应平整, 均匀; 纸箱盖子封上无重叠, 歪斜现象. 6. 外箱抗破裂强度: 12Kgf以上, 																																																																						
四. 包材物料(BOM)表(外销):																																																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>序号</th><th>名称</th><th>数量</th><th>料号</th><th>备注</th></tr> </thead> <tbody> <tr> <td>1</td><td>外箱</td><td>1</td><td>PK-350245240-07</td><td>9Pin, 37Pin专用纸箱</td></tr> <tr> <td>2</td><td>外箱</td><td>1</td><td>PK-310220200-07</td><td>15Pin, 25Pin专用纸箱</td></tr> <tr> <td>3</td><td>吸塑盒</td><td>12</td><td>TRD-DS1037-10PV</td><td>底座</td></tr> <tr> <td>4</td><td>吸塑盒</td><td>12</td><td>TRU-DS1037-10PV</td><td>上盖</td></tr> <tr> <td>5</td><td>环保标签</td><td>13</td><td>PK-014</td><td></td></tr> <tr> <td>6</td><td>数量标签</td><td>13</td><td>PK-015</td><td></td></tr> <tr> <td>7</td><td>干燥剂</td><td>8</td><td>PK-001</td><td></td></tr> <tr> <td>8</td><td>大透明胶</td><td>若干</td><td>PK-004</td><td>无晨翔或正青商标, 53mm</td></tr> <tr> <td></td><td>打包袋</td><td>若干</td><td>PK-007</td><td>无晨翔或正青商标</td></tr> <tr> <td></td><td></td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>					序号	名称	数量	料号	备注	1	外箱	1	PK-350245240-07	9Pin, 37Pin专用纸箱	2	外箱	1	PK-310220200-07	15Pin, 25Pin专用纸箱	3	吸塑盒	12	TRD-DS1037-10PV	底座	4	吸塑盒	12	TRU-DS1037-10PV	上盖	5	环保标签	13	PK-014		6	数量标签	13	PK-015		7	干燥剂	8	PK-001		8	大透明胶	若干	PK-004	无晨翔或正青商标, 53mm		打包袋	若干	PK-007	无晨翔或正青商标																
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8	大透明胶	若干	PK-004	无晨翔或正青商标, 53mm																																																																		
	打包袋	若干	PK-007	无晨翔或正青商标																																																																		
 图<一>  图<二>  图<三>  图<四>  图<二>  图<三>  图<四>																																																																						
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 宁波晨翔电子有限公司
CONNFLY CONNFLY ELECTRONIC CO., LTD.

产品包装作业规范

文件编号	版次	制作日期	适用产品系列	客户类别
PS-DS1037-001	C	2009-03-26	DS1037(吸塑盒包装)	普通型

包 装 数 据 一 览 表

核准:

审核:

制作：

页码：2 / 2

产品包装作业规范 - 附页

文件编号	版次	制作日期	适用产品系列	客户类别
PS-DS1037-001	C	2008-03-26	DS1037(栈板包装)	普通型

栈板摆放示意图

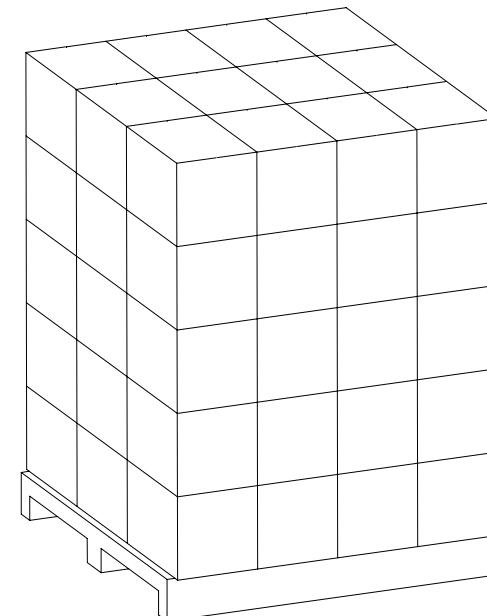
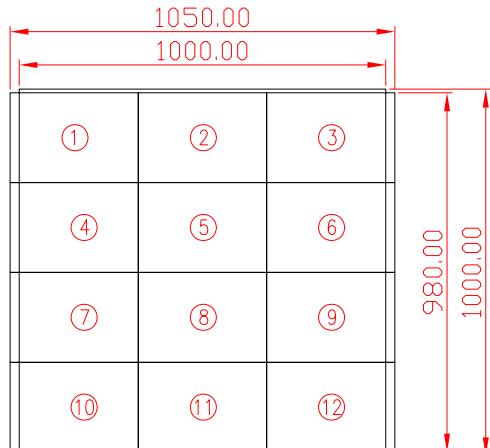
一. 作业说明:

- 仓库接到业务指令需加栈板出货时,先从仓库领取标准栈板1米*1米(栈板材料为椐木,在海关检验时不用熏蒸).
- 栈板领取后按图<一>顺序进行摆放,平放堆5层,每层12箱.
- 堆好后用保鲜膜进行缠封,除栈板底部外,其余5个面均需覆盖,层数以稳固性为主.

货物摆放三视图

单位: mm

比例: 1:20



二. 注意事项:

- 摆放前先检查栈板稳固性及其质量,以保证足够承受能力.
- 纸箱堆放不能超出栈板,如有超出栈板必需保持栈板堆放产品的稳固性.
- 保鲜膜缠绕不要太多太厚以免浪费成本及增加客户取货时.
- 堆放后尽量放置平坦及干燥地区,以免产品质量受到影响.
- 不同产品同时出同一家客户,一种产品未摆满一栈板可以与其它产品拼满一栈板处理,且在纸箱上注明唛头.

适用纸箱规格:35*24.5*24cm

核准:

审核:

制作:

PS-DS1037-001附页: 栈板摆放示意图



ECBT2.E328028

Connectors for Use in Data, Signal, Control and Power Applications - Component[Page Bottom](#)**Connectors for Use in Data, Signal, Control and Power Applications - Component**[See General Information for Connectors for Use in Data, Signal, Control and Power Applications - Component](#)**NINGBO CONNFLY ELECTRONIC CO LTD**

E328028

EAST INDUSTRY ZONE

KUANGYAN TOWN

CIXI

NINGBO, ZHEJIANG 315000 CHINA

Connectors, Cat. No. DS1011-Big Latch-Header, followed by -6, -8, -10, -14, -16, -20, -26, -30, -34, -40, -50, -60, -64, followed by P.

Cat. No. DS1016-IDC socket, followed by -6, -8, -10, -14, -16, -20, -26, -30, -34, -40, -50, -60, -64, followed by P.

Cat. No. DS1023, followed by -1 thru -40, followed by P.

Cat. No. DS1037-M, followed by -9, -15, -25 or -37, followed by P.

Cat. No. DS1037-F, followed by -9, -15, -25 or -37, followed by P.

Cat. No. DS1120-M, followed by -30, -48 or -96, followed by P.

Cat. No. DS1120-F, followed by -30, -48 or -96, followed by P.

Cat. No. DS1001-01, followed by -6, 8, 14, 16, 18, 20, 24, 28, 32, 40, followed by P.

Cat. No. DS1003-01, followed by -6, 8, 14, 16, 18, 20, 24, 28, 32, 40, followed by P.

Cat. No. DS1072-M, followed by -2 thru -13, followed by P.

Cat. No. DS1072-F, followed by -2 thru -13, followed by P.

Marking: Company name and catalog designation on the device or carton.