佳承精工股份有限公司
CHIA CHERNE INDUSTRY CO.,LTD.

承 認 書
APPROVAL SHEET

GP

品　　名: COOLER
DESCRIPTION

規　　格: JACL511C
TYPE/MODEL (First Version Valid From 03/01/07)

客　　戶: COOLJAGUSA
BUYER

CHIA CHERNE INDUSTRY CO, LTD. MAR 3 1 2007 Issued By Document Control Dept

日　　期:
DATE

審 核 APPROVER	確 認 CHECKER	經 辦 HANDLER
Susie	Penny	Tony

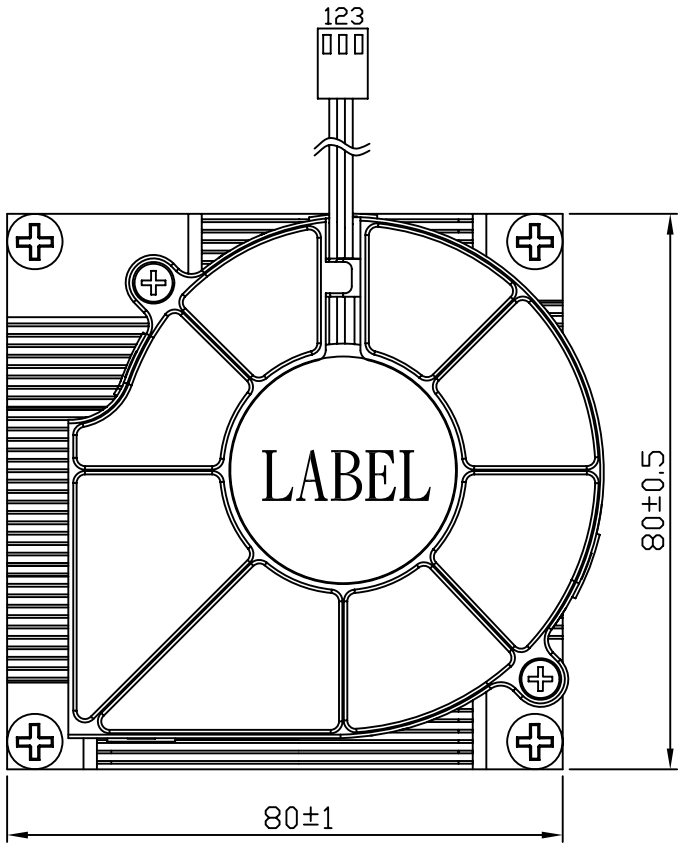
客 戶 承 認 印
APPROVAL SIGNATURES

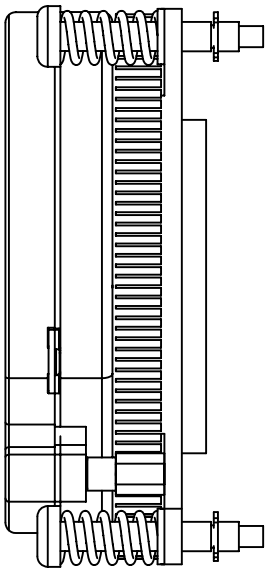
審 核 APPROVER	確 認 CHECKER	主 辦 HANDLER	結 論 CONCLUSION	印 章 SIGNATURE

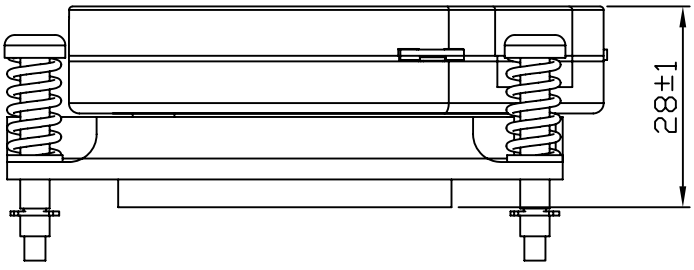
NO. 55 , Alley 121 , Lane 175 , Kousheng Rd ., Changhua City , Taiwan
彰 化 市 國 聖 路 175 巷 121 弄 55 號
TEL. +886 4 732 3090 FAX. +886 4 738 3155
http：//www.cooljag.com

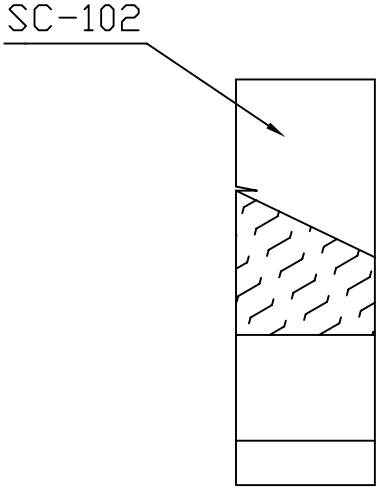
JACL511C

Application	Intel Socket 775 - 1U
Specification	
Weight	~ 387g
Dimension	80L×80W×28H (mm)
Heat sink	
Model	JAH511C
Material	Copper C1100
Fin pitch	1.2 (mm)
Fin thickness	~0.45 (mm)
Rated Voltage	DC12V
Rated Current	0.80A
Rated Speed	5500RPM ±10%

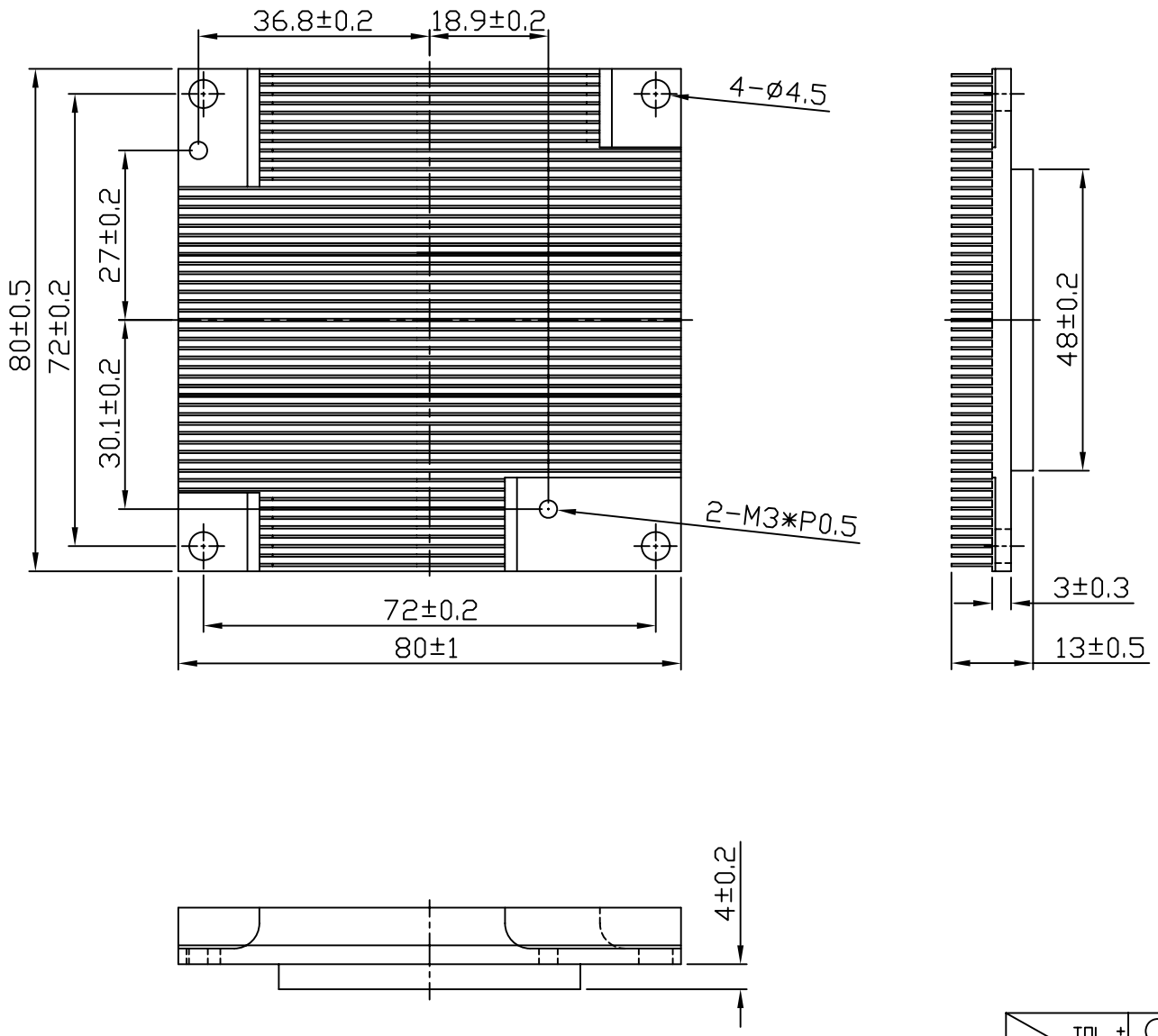








MODEL	JACL511C		NAME	COOLER					
DRN	Tony	02/28 2007	MATERIAL	— —	REV.	DESCRIPTION	SIGN	DATE	
DSN	John	02/28 2007	FINISH	— —		DIM IN	mm	DO NOT SCALE DWG	
CKD	Richard	02/28 2007	CHIA CHERNE INDUSTRY CO.,LTD			SHEET	1	OF	1
APPD	Auric	02/28 2007			DRAWING NO.	JACL511C			



RANGE \ TOL ±	URS
0~6	0.20
6~30	0.25
30~120	0.45
120~300	0.80
300~600	1.20
600~1200	1.50
ANG. TOL±	1°

Not:1.Fin Pitch is 1.2mm。
2.Fin Thickness is about 0.45mm。

MODEL	JAH511C			NAME	HEATSINK			
DRN	Tony	02/28 2007	MATERIAL	CU1100	REV.	DESCRIPTION	SIGN	DATE
DSN	John	02/28 2007	FINISH	Anti-oxidized		DIM IN mm	DO NOT SCALE DWG	
CKD	Richard	02/28 2007	CHIA CHERNE INDUSTRY CO.,LTD			SHEET 1	OF 1	
APPD	Auric	02/28 2007			DRAWING NO.	JAH511C		

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CERTIFICATE OF ANALYSIS

Freedom of Embrittlement
The freedom of embrittlement is tested according to ASTM B 577
(Closed Bend Test)

Typical Analysis (ppm):

Pb	Bi	As	Sb	Sn	Zn	Fe	Ni	AG	Se	Te	S	P
4	<1	3	3	<1	<3	8	8	12	<1	<1	8	appr. 30

The requirements are met.

The aforesaid data are given for purposes of technical quality description only and do not constitute guaranteed properties in legal terms.

Irrevocable Doc. Credit Number 6AEJR10002201059 dated 060414
of Bank of Taiwan Taipei (Shihlin Branch)

NORDDEUTSCHE AFFINERIE
Aktiengesellschaft
Logistics Department

i.V. K.Tabel

Test Report

GWO CHERN INDUSTRIAL CO., LTD.
NO. 186-28, HAI HU VILLAGE, LU CHU HSIANG, TAO YUAN HSIEN, TAIWAN

Report No. : CE/2006/75552
Date : 2006/07/26

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

Sample Description	:	JIS C1100
Sample Received	:	2006/07/19
Testing Period	:	2006/07/19 TO 2006/07/26

==========

Test Result(s) : - Please see the next page(s) -

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

Test Report

GWO CHERN INDUSTRIAL CO., LTD.
NO. 186-28, HAI HU VILLAGE, LU CHU HSIANG, TAO YUAN HSIEN, TAIWAN

Report No. : CE/2006/75552
Date : 2006/07/26

Test Result(s)

PART NAME NO.1 : COPPER COLORED METAL

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	8.2

NOTE: (1) N.D. = Not Detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit

Test Report

GWO CHERN INDUSTRIAL CO., LTD.
NO. 186-28, HAI HU VILLAGE, LU CHU HSIANG, TAO YUAN HSIEN, TAIWAN

Report No. : CE/2006/75552
Date : 2006/07/26

** End of Report **

SPECIFICATIONS

TYPE DC BRUSHLESS FAN	MODEL NO. B127515BU AC	PAGE: 1 OF 4

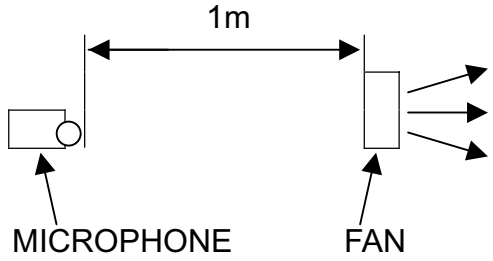
THESE SPECIFICATIONS DEFINE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS FAN.

1. MECHANICAL SPECIFICATIONS

1-1 EXTERNAL DIMENSIONS : REFER TO DWG. NO. HT-001
1-2 HOUSING MATERIAL : LEAD-FREE PLASTIC {UL 94V-0}
IMPELLER MATERIAL : LEAD-FREE PLASTIC {UL 94V-0}
1-3 BEARING : TWO BALL BEARINGS
1-4 NET WEIGHT : 79g

2.ELECTRICAL SPECIFICATIONS

NO	ITEMS	STANDARD	REMARKS
2-1	RATED VOLTAGE	12 V DC	
2-2	START VOLTAGE	5 V DC	POWER ON/OFF
2-3	OPERATING RANGE	7 V~13.2 V DC	
2-4	CONSUMING CURRENT	0.80 Amp (MAX. 0.80 Amp)	IN FREE AIR AT RATED VOLTAGE
2-5	CONSUMING POWER	9.60 W (MAX. 9.60 W)	IN FREE AIR AT RATED VOLTAGE
2-6	RATED SPEED	5500rpm +/- 8%rpm	IN FREE AIR AT RATED VOLTAGE
2-7	AIRFLOW	MAX. 10.48CFM MAX. 0.30 m^3/min	AT RATED VOLTAGE AT ZERO STATIC PRESSURE
2-8	STATIC PRESSURE	MAX.17.58 mmH_2O	AT RATED VOLTAGE AT ZERO AIRFLOW
2-9	SOUND LEVEL	51 dB(A)	IN FREE AIR AT RATED VOLTAGE



EVERFLOW PRECISION ELECTRON CO., LTD	APPROVAL	CHECK	DESIGN
	LIU CHUN XIANG 2005/09/03	LIANG HAI HU 2005/09/03	HAI YING YANG 2005/09/03

SPECIFICATIONS

TYPE DC BRUSHLESS FAN	MODEL NO. B127515BU AC	PAGE: 2 OF 4

2-10	OPERATING TEMPERATURE	-10℃~70℃ (NORMAL HUMIDITY)	
2-11	STORAGE TEMPERATURE	-20℃~75℃ (NORMAL HUMIDITY)	
2-12	DIRECTION OF ROTATION	CLOCKWISE FROM LABEL SIDE	
2-13	DIRECTION OF AIRFLOW	LABEL SIDE DISCHARGE	
2-14	INSULATION STRENGTH	10 MEG OHM MIN.	AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)
2-15	DIELECTRIC STRENGTH	MUST WITHSTAND 500 VAC 1min	MAX 1mA BETWEEN FRAME AND LEADS
2-16	PROTECTION	CURRENT LIMIT	
2-17	DROP TEST	IN MINIMUM PACKAGING CONDITION,FAN WITHSTANDS EACH ONE DROP OF THREE FACES FROM 30cm DISTANCE HEIGHT ON TO 10mm THICKNESS OF WOODEN BOARD.	
2-18	MECHANICAL SHOCK	TEMPERATURE : +25°c. ORIENTATION : X , Y , Z . POWER : NON-OPERATING., ACCELERATION : 20G MIN. PULSE : 11 MS HALF-SINE WAVE. NUMBER OF SHOCKS : 5 SHOCKS FOR EACH DIRECTION.	

NOTE 1. THE ABOVE STANDARD SHOULD BE THE SPECIFIED VALUE AT NORMAL TEMPERATURE (25℃) AND NORMAL HUMIDITY (60~65%) UNLESS OTHERWISE NOTICED.

	APPROVAL	CHECK	DESIGN
EVERFLOW PRECISION ELECTRON CO., LTD	LIU CHUN XIANG 2005/09/03	LIANG HAI HU 2005/09/03	HAI YING YANG 2005/09/03

SPECIFICATIONS

3.LIFE EXPECTANCE (MTBF)

MORE THAN 90% SHALL KEEP RUNNING AFTER CONTINUOUS OPERATION OF 50,000 HOURS AT RATED VOLTAGE IN 25℃ AMBIENT TEMPERATURE AND 65% RELATIVE HUMIDITY CONDITION.

FAN LIFE SHOULD BE REDEFINED WHEN ABOVE CONDITIONS ARE CHANGED.

4.LOCKED ROTOR

NO DAMAGE SHALL BE FOUND FOR CONTINUOUS ONE HOUR AT LOCKED ROTOR.

5.SPECIAL ITEMS

5-1 SPECIFICATION CHANGE

ANY CHANGES TO THE PARAMETERS SPECIFIED IN THIS DOCUMENT WILL BE DETERMINED BY MUTUAL AGREEMENT ON BOTH PARTIES.

5-2 UNCERTAINTY

IN THE EVENT THAT ANY QUESTIONS MAY ARISE ABOUT THIS DOCUMENT OR ANY STATEMENTS NOT SPECIFIED IN THIS DOCUMENT BOTH PARTIES WILL DISCUSS AND DETERMINE A SOLUTION FAITHFULLY.

5-3 NOTE

1.PLEASE CONSIDER HAVING AN INDEPENDENT PROTECTION SYSTEM IN THE EVENT THAT THE FAN SHOULD STOP OPERATING.

2.PLEASE MAKE REFERENCE TO ATTACHED IMPORTANT NOTES & GENERAL INSTRUCTIONS AND DWG.No.:HT-001 TOGETHER WITH THIS SPECIFICATION.

SPECIFICATIONS

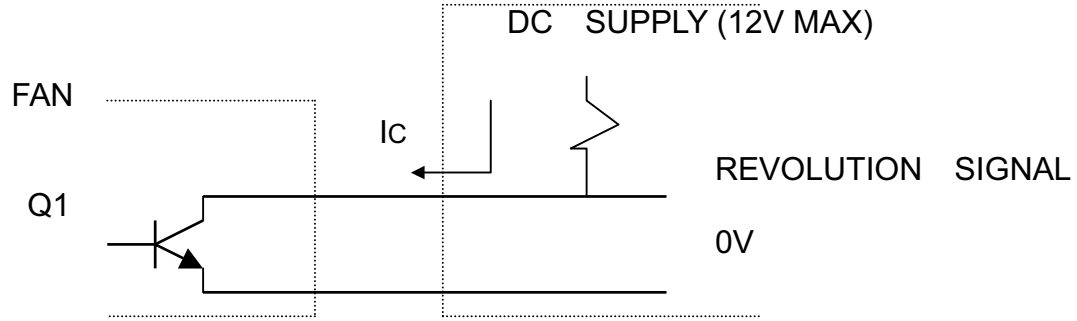
TYPE DC BRUSHLESS FAN	MODEL NO. B127515BU AC	PAGE: 4 OF 4

6. PROVISION OF REVOLUTION SIGNAL

6-1 OUTPUT OF REVOLUTION SIGNAL

.OUTPUT TYPE — OPEN COLLECTOR TYPE

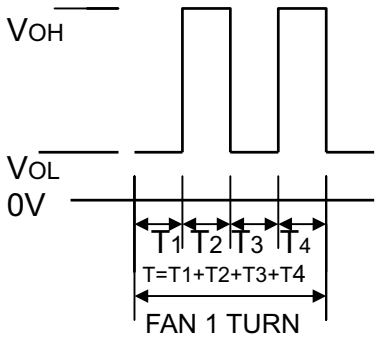
.ELECTRICAL SPECIFICATION



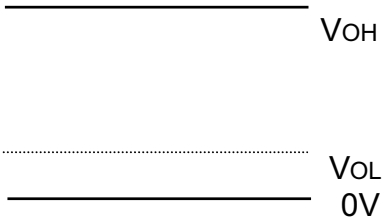
TRANSISTOR Q1 AT "ON" POSITION
COLLECTOR CURRENT — I_C = 10 mA MAX.
SATURATION VOLTAGE BETWEEN COLLECTOR AND EMITTER AT I_C = 10mA MAX. — V_{OL}= 0.5V MAX.
TRANSISTOR Q1 AT "OFF" POSITION
RELEASE VOLTAGE — V_{OH} = 12V MAX

6-2 OUTPUT WAVEFORM (ACCORDING TO INPUT VOT.)

(AT REVOLUTION)



(AT LOCKED POSITION)



REMARK AT LOCKED POSITION, OUTPUT BECOMES V_{OH} OR V_{OL}

$T=T_1+T_2+T_3+T_4=60/N$ (SEC) N : FAN SPEED (r.p.m)

$$\text{DUTY}=\frac{T1}{T_1+T_2}=50\pm10\%$$

	APPROVAL	CHECK	DESIGN
EVERFLOW PRECISION ELECTRON CO., LTD	LIU CHUN XIANG 2005/09/03	LIANG HAI HU 2005/09/03	HAI YING YANG 2005/09/03

SPECIFICATIONS

IMPORTANT NOTES & GENERAL INSTRUCTIONS

1. Customer shall confirm the matching and reliability of fan on actual set or unit application.
   This include confirmation on set or unit life, electrical noise, mechanical noise, vibration, static electricity, electric power noise, drift,electric resonance between motor and control circuit, mechanical resonance between motor and chassis, irregular movement of set due to motor noise, irregular movement of set in strong electromagnetic field, damaged by lightning surge earthing method etc.

2. Any revisions on the specification shall be done based on mutual discussion and agreement.

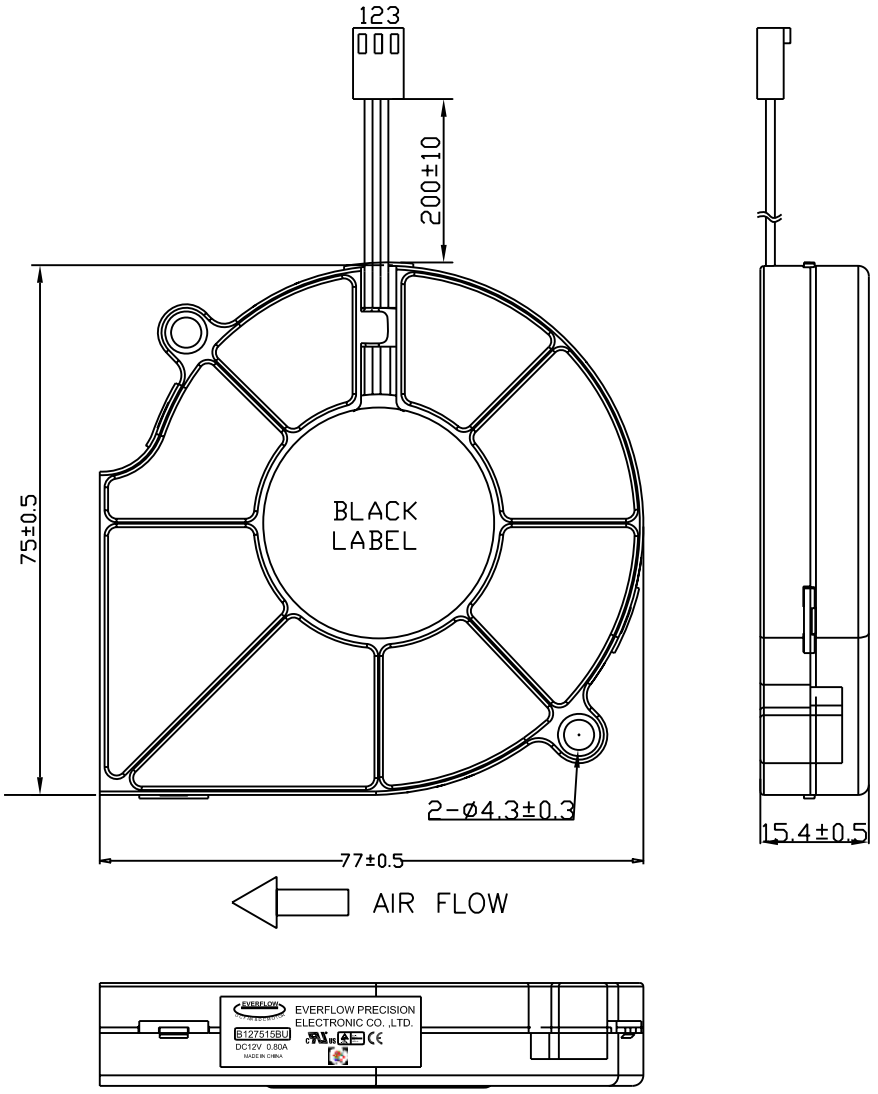
3. In order to improve the performance within the scope of specification, parts or material changes are subject to prior notice to customer.

4. Any item which is needed to add into specification shall be determined on customer's prior written request. If no information given, fan will be delivered based on our standard judgment.

5. When any trouble occurs, both parties shall discuss on this specification to solve the matters. In this case, our guarantee is only limited to fans.

	APPROVAL	CHECK	DESIGN
EVERFLOW PRECISION ELECTRON CO., LTD	**LIU CHUN XIANG** **2005/09/03**	**LIANG HAI HU** **2005/09/03**	**HAI YING YANG** **2005/09/03**

REVISES	B



NOTES:

1.LEAD WIRE UL1430 AWG26OR EQUIVALENT
PIN 1:BLACK WIRE---(-)
PIN 2:RED WIRE ---(+)
PIN 3.YELLOW WIRE---(SIGNAL)
2.HOUSING:2510-3P OR EQUIVALENT
3.TERMINAL:2515T OR EQUIVALENT

TRCANGLE METHOD	UNIT: mm			MODEL NO.	B127515BUAC6A302
APPROVE	LIU CHUN XIANG	2006/01/07		PART NAME	DC FAN
CHECK	LIANG HAI HU	2006/01/07	N		
DRAWING	HAI YING YANG	2006/01/07		DRAWING NAME	OUTLINE
EVERFLOW PRECISION ELECTRON CO. ,LTD.			CODE	HT-001	PAGE: 1

EVERFLOW FAN LIFE TEST REPORT

B127515BU AC

1.Test Conditions

EVERFLOW Axial Fan P/N B127515BU AC rotates continuously under the following conditions:

a.Ambient Temperature=70deg.C/RH65%.

b.Voltage Applied=12V

c.Number of Fan Tested =10PCS

2. Estimated life

Everflow definition of life is when fan reaches the end of its' life, the rotation speed of fan decreases by under 20% comparing with its original rotation speed at start.

3.Acceleration Test Result

a.Running continuously for 15,800Hrs at temperature 70℃ without deterioration of rotation speed more than 20%.

b.Test data as attached.

4.Fan Life Estimate(L10)

Following is calculation formula to be applied to estimate the life of fan at 25deg. C ambient temperature .

a.Accelerated Test Temperature=70 deg.C

b.Calculation Formula

$L10 = T_{70} \times EXP^{〔(EA/K)*(1/TU-1/TA)〕}$

where each alphabetical symbol means as follows:

L10=Life at 25 deg. C ambient temperature.

T_{70}=life at 70 deg.C ambient temperature

EA=Action energy(0.3~0.5) fan & motor **:** 0.4

K=Boltemanns constant 8.63×10^{-5}

TU=Absolute temperature of using

TA=Absolute temperature of testing

c.Calculation Result

L10=121,502Hrs

Test Data for B127515BU AC

B127515BU AC life test data as below:

ambient temperature:70˚C 15,800Hrs N＝10PCS

Rated Voltage:12V

Rated Temperature:25˚C

Test Temperature:70˚C

Test Equipment

Equipment	Brand/Model	Specification
DC power supply	TES-6210	Voltage:0~30V Current: 0~3A
Flasher	SP-DS220A	Range:300~30000rpm
Temperature/Humidity Cycling Chanber	GTH-099-40-1P	-20˚C~100˚C R.H.20%-98%
Vibration Tester	King Dsign KD-9363	2-2000HZ
Thermal Shock Tester	Giant Force GTST-108-65	-65˚C~150˚C

Test data & Test result

70deg C N=10PCS

No.	Before test data		After test data	
	Speed(RPM)	Current(Amp)	Speed(RPM)	Current(Amp)
1	5486	0.56	5511	0.55
2	5478	0.57	5486	0.56
3	5468	0.58	5489	0.57
4	5320	0.57	**5389**	**0.55**
5	5426	0.57	5268	0.57
6	5392	0.56	4293	0.67
7	5398	0.58	5479	0.58
8	5472	**0.56**	5378	0.58
9	5326	0.57	5296	0.56
10	5400	0.58	5359	0.59

NO.6 was found rotation speed has deteriorated more than 20% and current has risen 15% when it run continuously for 15,800 hours at temperature 70˚C.

It was show fan has reached the end of its' life.

S&E Technologies Laboratory

Certification of Conformity

Date of Issue: September 23, 2005 Attestation number: SE05I-173S

S&E Technologies Laboratory Ltd. hereby declares that testing has been completed and reports have been generated for:

Product: **DC FAN**

Model: **X1X2X3X4X5X6**

Note: Model designation see attachment

Applicant: **EVERFLOW PRECISION ELECTRONIC(DONGGUAN) CO.,LTD**

Gekeng Yanjiang Industrial Zone, Heng Li Town, Dong Guan City, Guang Dong Province, China

Manufacturer: **EVERFLOW PRECISION ELECTRONIC(DONGGUAN) CO.,LTD**

Gekeng Yanjiang Industrial Zone, Heng Li Town, Dong Guan City, Guang Dong Province, China

And, in accordance to the following Applicable directives:

73/23/EEC Low Voltage Directive (as amended)

That this product has been assessed against the following Applicable Standards;

LVD EN 60950-1: 2001

Therefore, S&E Technologies hereby acknowledges that the applicant may issue a DECLARATION of CONFORMITY and apply the CE mark in accordance to European Union Rules.

Attestation by: Karbon Y. Chung

Signature

S&E TECHNOLOGIES LABORATORY LTD. S&E 2000 AUTHORIZED

CE The CE marking may only be used if all relevant and effective EC Directives are complied with. CE

Tel: 86-755-26636573 Fax: 86-755-26630557 http:/ / www.seps.com.cn

S&E Technologies Laboratory

Certification of Conformity

Date of Issue: September 23, 2005 Attestation number: SE05I-173S

Attachment

Model Designation: X1X2X3X4X5X6

X1 = Frame Type (R, F, T, S, B, K, X)
X2 = Input Voltage (B=12V DC, C=24V DC)
X3 = Size of Fan (60, 70, 75, 80, 90, 92, 120)
X4 = Thickness of Fan (10, 15, 20, 25, 30, 32, 38)
X5 = B or Ⅱ
(B=Two ball Ⅱ= S: One sleeve; D: One ball one sleeve; B: Two ball)
X6 = Speed
(L=Low speed; M=Medium speed; H=High speed; U=Ultra high speed)

Model Name	Voltage (V)	Current (A)	Speed (RPM)
R(S/T)B6010ⅡU(55)	12	0.35	5500
(R/F/T)C6025ⅡL	24	0.14	3600
(R/F/T)C6025ⅡM	24	0.16	4000
(R/F/T)C6025ⅡH	24	0.20	4550
(R/F/T)C6025ⅡU	24	0.25	4900
RB7038BL	12	0.28	3800
RB7038BM	12	0.35	4800
RB7038BH	12	0.50	5800
RB7038BU	12	0.80	6800
RB8020ⅡL	12	0.20	2400
RB8020ⅡM	12	0.40	3600
RB8020ⅡH	12	0.55	4200
RB8020BU	12	1.00	4800
RC8032ⅡL	24	0.20	3000
RC8032ⅡM	24	0.25	3600

CE The CE marking may only be used if all relevant and effective EC Directives are complied with. CE

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S&E Technologies Laboratory

Certification of Conformity

Date of Issue: September 23, 2005 Attestation number: SE05I-173S

Continuation

Model Name	Voltage (V)	Current (A)	Speed (RPM)
RC8032 II H	24	0.30	4200
RC8032 II U	24	0.40	4800
FB8038BL	12	0.18	3000
FB8038BM	12	0.25	3600
FB8038BH	12	0.30	4200
FB8038BU	12	0.50	4800
FC9025 II L	24	0.12	2200
FC9025 II M	24	0.18	2800
FC9025 II H	24	0.25	3200
FC9025 II U	24	0.35	3600
FB9238BL	12	0.50	3200
FB9238BM	12	0.70	3600
FB9238BH	12	0.80	4200
FB9238BU	12	1.20	4800
FB1232BL	12	0.25	1800
FB1232BM	12	0.50	2200
FB1232BH	12	0.65	2600
FB1232BU	12	1.00	3000
BB7515BL	12	0.40	4000
BB7515BM	12	0.50	4500
BB7515BH	12	0.60	5000
BB7515BU	12	0.80	5500
BB7530BU	12	0.42	3800

CE The CE marking may only be used if all relevant and effective EC Directives are complied with. CE

Tel: 86-755-26636573 Fax: 86-755-26630557 http:// www.seps.com.cn

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MR. JANICE
EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD
GE KENG INDUSTRIAL ZONE
HENG LI TOWN
DONGGUAN,
GUANGDONG 523460 CHINA

Date: 2005/08/03
Subscriber: 762737001
File No: E236658
Project No: 05CA29583
PD No: 05018252
Type: R
PO Number: LIUCHUN XIANG

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue Date	Vol	Sec	Pages		Revised Date
2003/06/27	1		New	Index Page(s) 2	2005/07/29
2005/07/29	1	7		Add New Proc/Report Sect	

Inspections at your plant will be conducted under the supervision of Mr. Li Wei Qun, China National Import & Export Commodities Inspection Corp. (CCIC), 5th Floor, Zhong Chang Bldg., No. 6, Li Cheng Rd, Changping Town, Dongguan, Guangdong 523565, China. PHONE: +86-769-381-7010, 7011, 7012, 7013, 7015, FAX: +86 769 381 7017, E-MAIL: ulic213@ulccic.net.

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions: DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL China (Suzhou) Customer Service, PHONE: +86-512-6808-6400, FAX: +86-512-6808-4099, E-MAIL: customerservice.sz.cn@cn.ul.com, referring to the above Project and/or PD Numbers.

This material is sent on behalf of Underwriters Laboratories Inc. pursuant to the Services Undertaking and Business Transfer Agreement between this affiliate and UL.

TPI File

UL INSPECTION CENTER 213

Models	V dc	A
FB9238BL	12	0.40
FB9238BM	12	0.60
FB9238BH	12	0.80
FB9238BU	12	1.00
FB1232BL	12	0.25
FB1232BM	12	0.50
FB1232BH	12	0.65
FB1232BU		1.00
BB7515BL	12	0.40
BB7515BM	12	0.50
BB7515BH	12	0.60
BB7515BU	12	0.80

Note: Above (W) may be R, S or T; (X) may be R, P or T; (Y) may be S, D or B.

Zertifikat *Certificate*

TÜV

Zertifikat Nr. *Certificate No.*
R 50040385

Blatt *Page*
0002

Ihr Zeichen *Client Reference*
XLU

Unser Zeichen *Our Reference*
ZTW1-JPE- 10009602 002

Ausstellungsdatum *Date of Issue (day/mo/yr)*
16.08.2005

Genehmigungsinhaber *License Holder*
Everflow Precision Electronic
(Dong Guan) Co., Ltd.
GeKeng Industrial Zone
Heng Li Town
Dongguan City, Guangdong 523460
P.R. China

Fertigungsstätte *Manufacturing Plant*
Everflow Precision Electronic
(Dong Guan) Co., Ltd.
GeKeng Industrial Zone
Heng Li Town
Dongguan City, Guangdong 523460
P.R. China

Prüfzeichen *Test Mark*
TÜV Rheinland Product Safety | BAUART GEPRÜFT / TYPE APPROVED

Geprüft nach *Tested acc. to*
EN 60950:2000

Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

Lizenzentgelte - Einheit *License Fee - Unit*

Ventilator (DC Fan)

wie Blatt (as page) 01
Ergänzung (Addition)
Bezeichnung : X1X2X3X4X5X6 (EVERFLOW)
(Type Designation)

X1 steht für (stands for): R, F, S, B, X, T, K oder (or) D	1
X2 steht für (stands for): B oder (or) C	1
X3 steht für(stands for):60, 70, 75, 80, 90, 92 oder (or) 12	1
X4 steht für(stands for):10, 15, 20, 25, 30, 32 oder (or) 38	1
X5 steht für (stands for): B oder (or) II	1
X6 steht für (stands for): L, M, H oder (or) U	

Nennspannung (Rated Voltage): DC 12V oder (or) 24V
Nennstrom : siehe Anlage
(Rated Current) (see Appendix)

Hinweis: Dieses Ausweisblatt ersetzt Zertifikat R50040385, Blatt 02 vom 04.08.2005.
(Remark: This license sheet replaces certificate R50040385, sheet 02 dated 04.08.2005.)

TÜV Rheinland Product Safety GmbH – TÜV Rheinland – FS – Zertifizierungsstelle

6

ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde. Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht. This certificate is based on our Testing and Certification Regulation. The product fulfills above-mentioned-requirements, the production is subject to surveillance.

Zertifizierungsstelle

TÜV Rheinland Product Safety GmbH, Am Grauen Stein, D-51105 Köln
Tel.:(+49/221)8 06 - 13 71 Fax:(+49/221)8 06 - 39 35 e-mail: Althoff@de.tuv.com

Dipl.-Ing. F. Spelzel

TÜV Rheinland Group

TÜV

Appendix to TÜV Bauart approved Certificate No.: R 50040385

Kind of equipment : DC Fan
Report number : 10009602 002
Model Name : X1X2X3X4X5X6
(X1 = R, F, S, B, X, T, K, D (frame type); X2 = B or C, B = 12V, C = 24V (operating voltage); X3 = 60, 70, 75, 80, 90, 92 or 12 (size); X4 = 10, 15, 20, 25, 30, 32 or 38 (thickness); X5 = B or II, B = two ball, II = S (one sleeve), B (two ball) or D (one ball and one sleeve); X6 = L (low speed), M (Medium speed), H (High speed), U (Ultra High speed)

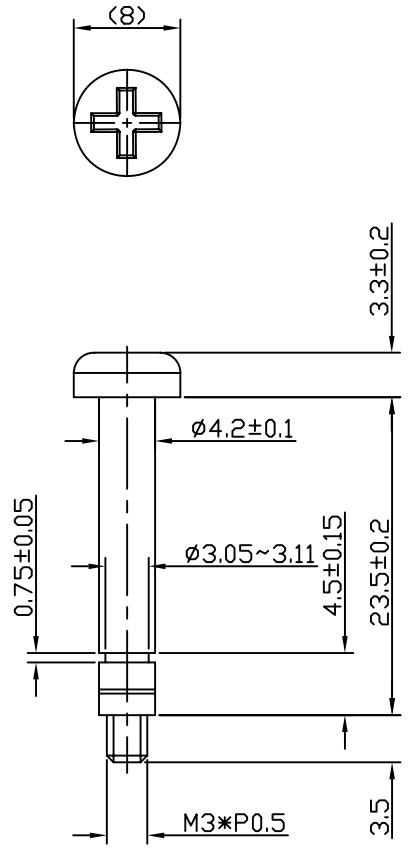
Series	Model No.	Voltage DC (V)	Current (A)
9238	FB9238BH	12	0.80
	FB9238BU	12	1.20
1232	FB1232BL	12	0.25
	FB1232BM	12	0.50
	FB1232BH	12	0.65
	FB1232BU	12	1.00
7515	BB7515BL	12	0.40
	BB7515BM	12	0.50
	BB7515BH	12	0.60
	BB7515BU	12	0.80
7530	BB7530BU	12	0.42

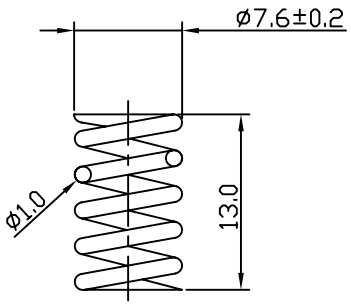
Date: August 16, 2005

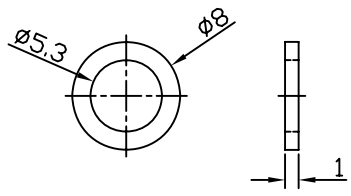
Certification Body

Dipl-.Ing. Friedrich Stoelzel

TÜV Rheinland Product Safety GmbH
TÜV Rheinland
FS
Zertifizierungsstelle







MODEL	JAS175C-A		NAME	Spring Screw Kit				
DRN	Tony	02/27 2007	MATERIAL	--------	REV.	DESCRIPTION	SIGN	DATE
DSN	John	02/27 2007	FINISH	--------		DIM IN mm	DO NOT SCALE DWG	
CKD	Richard	02/27 2007	CHIA CHERNE INDUSTRY CO.,LTD			SHEET 1	OF 1	
APPD	Auric	02/27 2007				DRAWING NO.	JAS175C-A	

FROM : TSUN MENG

中國鋼鐵股份有限公司
CHINA STEEL CORPORATION

品質證明書
TEST CERTIFICATE

中華民國高雄市小港區中鋼路1號
LIN HAI INDUSTRIAL DISTRICT P.O.BOX 47
HSIAO KANG, KAOHSIUNG(812),
TAIWAN, REPUBLIC OF CHINA
TELEX: 71105, 71283, 71415 KAOHSIUNG
TEL.:(07)802-1111 FAX:(07)803-0927

B0170-02

客戶名稱 SOLD TO	春雨工廠股份有限公司 CHUN YU WORKS & CO., LTD. 1, CHIA HSIN RD., CHIA HSIN LI, KANG SHAN CHENG, KAO. HSIEN	產品名稱 PRODUCT	ROD-CARBON STEEL
		安票號碼 INVOICE NO.	證明書編號 CERTIFICATE NO. B70225B
規格名稱 SPEC.	AISI 1018, AL-KILLED (GCWQ2)	客戶編號 CUSTOMER NO.	88187108 中鋼訂單編號 CSC ORDER NO. JB50022
		交運日期 SHIPPING DATE	證明書日期 T/C ISSUE DATE
檢驗 INSP.	CSC MILL INSPECTION	T/C 02	客戶訂單編號 CUST ORDER NO. D01206

項目 ITEM NO.	產品序號 SEQ. NO.	尺寸及規格 MATERIAL DESCRIPTION 直徑/厚 DIA/THICK MM	寬度 WIDTH	長度 LENGTH MM	數量 QTY	質量 MASS KGS	爐號 HEAT NO.	拉伸試驗 #] G.L.= 降伏 Y.S.	抗拉 T.S.	伸長 EL %
	SPECIFICATION									
005	D3851 01	7.00		COIL	12	17,713	3A683			
			TOTAL:		12	17,713				

化學成份 CHEMICAL ANALYSIS %	C	MN	P	S	SI	CU	NI	CR	MO	TOL AL	備註 REMARKS
	2 X10	2 X10	3 X10				2 X10			3 X10	
	15	60	30	50							
	20	90	MAX	MAX							
	18	74	20	9	7					66	

品保部

驗訖

註釋 NOTES

*C (1). CHEMICAL ANALYSIS IS CARRIED OUT BY CSC IN ACCORDANCE WITH TEST METHOD ASTM E415 AND E1019 WHICH CONFORM TO METAL STANDARDS AND SPECIFICATIONS.
(2) TEST SAMPLES ARE DISC TYPE (3) TEST REPORT RELATES ONLY TO THE SAMPLES BEING TESTED AND THAT SHALL NOT BE PARTIALLY REPRODUCED

SURVEYOR TO

茲證明本表所列產品，均依材料規格製造及試驗，並符合規格之要求。
WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN WAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

Yong Hsien Chang

FAX NO. : 02 2904 0611 Dec. 19 2002 07:28PM P1

Test Report

CHUNG YIN SPRING INDUSTRIAL CO., LTD.
36, ALLEY 42, CHUNG HSIN N. ST., SAN CHUNG CITY,
TAIPEI HSIEN, TAIWAN, R. O. C.

Report No. : CE/2005/90301
Date : 2005/09/07
Page : 1 of 1

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

Type of Product : SAE1018-Ni
Sample Received : 2005/08/31
Testing Date : 2005/08/31 TO 2005/09/07

==========

Test Result

PART NAME NO.1 : SILVER COLORED METAL

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 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

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

廣泰金屬工業股份有限公司
KUANG TAI METAL IND. CO., LTD.
No. 20 Kung Yen Road, Erh Chen Tsun,
Kuan Tien Hsiang, Tainan Hsien, Taiwan, R.O.C.
TEL: 886-6-6987615~9 FAX: 886-6-6988792, 6987315

MILL CERTIFICATE
材 質 證 明

Date 日期: 05/09/2005

Article 產品/品名	Carbon Steel Spring Wire (KH-3)				
Mfg. Date 製造日期	04/02/2005	Grade 等級	SW-C	Quantity 數量	58coils.
Cert. No.材證號	DM1-540025	Size 尺寸	1.0 mm	Net Weight 淨重	2858.8 Kgs.
Customer 客戶	盈豪五金有限公司				

CHEMICAL COMPOSITION
化 學 成 份

Component 成份	C	Mn	Si	P	S	Al			
Specification % 適用規範 (JIS G3506 SWRH 82B)	0.79-0.86	0.60-0.90	0.15-0.35	0.030 max	0.030 max				
Heat No 2M708	0.82	0.83	0.22	0.015	0.003	_			

MECHANICAL PROPERTIES
機 械 性 能

標準 Requirement / Test 測試	Diameter 線徑 mm	Tensile Strength 抗拉強度 Kgf/mm²	Surface 表面狀態			
	±0.030	1720-1960				
01	1.001	1896	GOOD			
02	1.000	1910	GOOD			

KUANG TAI METAL IND. CO., LTD.

C. W. Ho

Quality Assurance Department.

Test Report

CHUNG YIN SPRING INDUSTRIAL CO., LTD.
36, ALLEY 42, CHUNG HSIN N. ST., SAN CHUNG CITY,
TAIPEI HSIEN, TAIWAN, R. O. C.

Report No. : CE/2005/90300
Date : 2005/09/07
Page : 1 of 1

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

Type of Product : SWC-Ni
Sample Received : 2005/08/31
Testing Date : 2005/08/31 TO 2005/09/07

==========

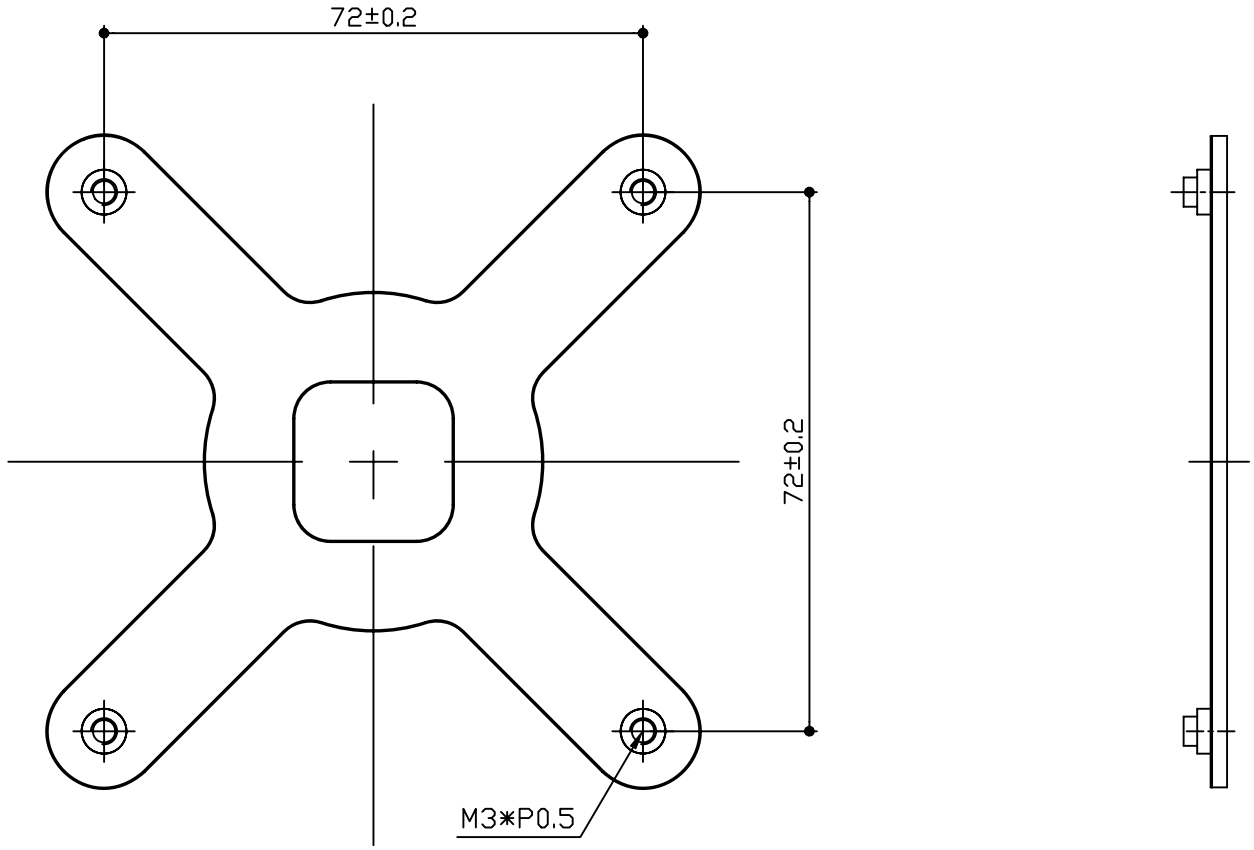
Test Result

PART NAME NO.1 : SILVER COLORED METAL

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 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

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



TOL ± / RANGE	M1	M2	S1	S2	P1	P2	C	URS
0~6	0.05	0.10	0.15	0.20	0.05	0.10	0.50	**0.20**
6~30	0.10	0.20	0.15	0.25	0.10	0.15	1.00	**0.25**
30~120	0.15	0.25	0.20	0.30	0.20	0.40	2.00	**0.45**
120~300	0.15	0.30	0.25	0.45	0.40	0.80	3.00	**0.80**
300~600	0.20	0.50	0.40	0.60	0.60	1.20	3.00	**1.20**
600~1200	0.30	0.80	0.70	1.10	0.80	1.50	4.00	**1.50**
ANG. TOL±	1°							

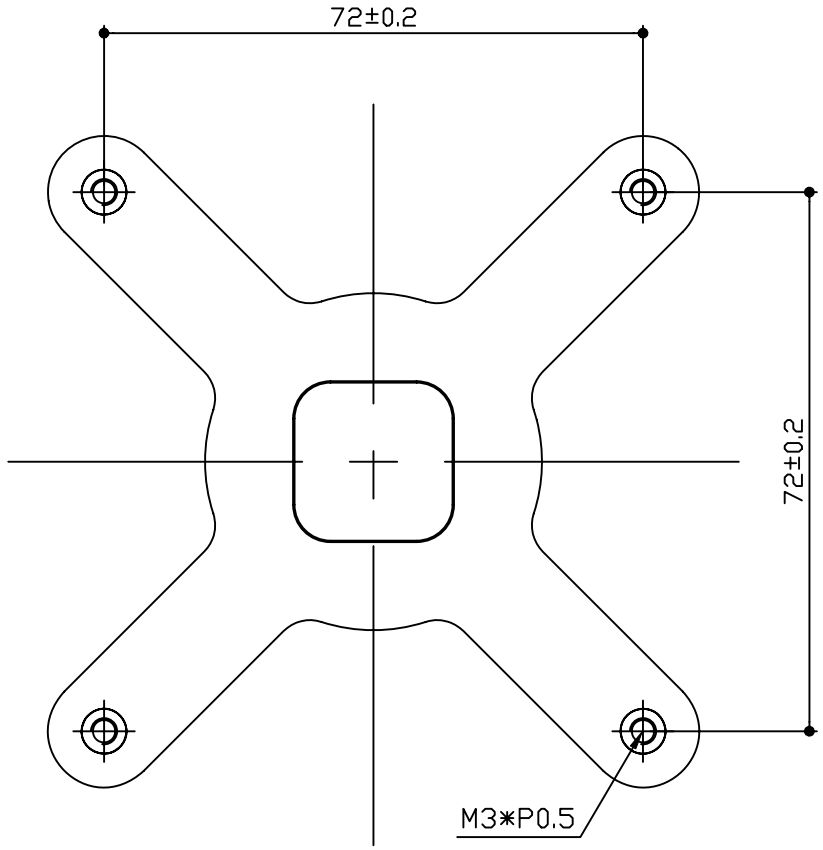
MODEL	JAT095		NAME	Back Plate
DRN	Fanny	12/11 2006	MATERIAL	---
DSN	John	12/11 2006	FINISH	---
CKD	Richard	12/11 2006	CHIA CHERNE INDUSTRY CO.,LTD	
APPD	Auric	12/11 2006		

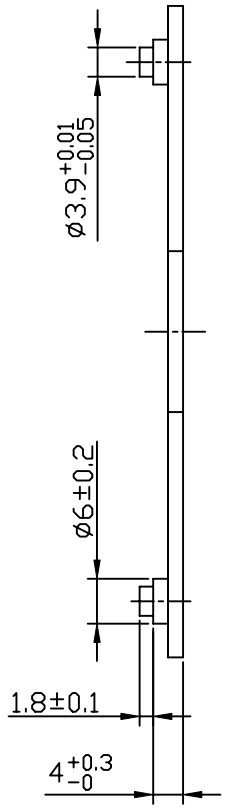
REV.	DESCRIPTION	SIGN	DATE
--			

DIM IN mm | DO NOT SCALE DWG

SHEET 1 OF 1

DRAWING NO. JAT095





TOL ± / RANGE	M1	M2	S1	S2	P1	P2	C	URS
0~6	0.05	0.10	0.15	0.20	0.05	0.10	0.50	**0.20**
6~30	0.10	0.20	0.15	0.25	0.10	0.15	1.00	**0.25**
30~120	0.15	0.25	0.20	0.30	0.20	0.40	2.00	**0.45**
120~300	0.15	0.30	0.25	0.45	0.40	0.80	3.00	**0.80**
300~600	0.20	0.50	0.40	0.60	0.60	1.20	3.00	**1.20**
600~1200	0.30	0.80	0.70	1.10	0.80	1.50	4.00	**1.50**
ANG. TOL±	1°							

MODEL	JAT095-1		NAME	Back Plate
DRN	Fanny	12/11 2006	MATERIAL	---
DSN	John	12/11 2006	FINISH	---
CKD	Richard	12/11 2006	CHIA CHERNE INDUSTRY CO.,LTD	
APPD	Auric	12/11 2006		

REV.	DESCRIPTION	SIGN	DATE
--			

DIM IN	mm	DO NOT SCALE DWG		
SHEET	1	OF	1	
DRAWING NO.	JAT095-1			

燁隆企業股份有限公司
YIEH LOONG ENTERPRISE CO., LTD.

品 質 證 明 書

中華民國臺灣省高雄縣橋頭鄉子官村子官路317號
317, YU LIAO ROAD, CHIAO TOU HSIANG,
KAOHSIUNG HSIEN, TAIWAN, R.O.C.
TEL:(07)611-7171(12 LINES) FAX:(07)611-0594

客戶名稱 SOLD TO	[redacted]	證明書編號 CERTIFICATE NO.	02040036	證明書日期 ISSUE DATE	2002-04-02
製品名稱 COMMODITY	冷軋調質鋼捲	訂單號碼 ORDER NO.		交運日期 SHIPPING DATE	2002-04-01
製品規格 SPECIFICATION	JIS G3141 SPCC-SBCIC	客戶編號 CUSTOMER NO.	I30137	發票號碼 INVOICE NO.	

項目 ITEM NO	鋼捲編號 COIL NO.	試片編號 SAMPLE NO.	尺寸規格 MATERIAL DESCRIPTION 厚度 THICK MM	寬度 WIDTH MM	長度 LENGTH MM	數量 QTY	質量 MASS KG	爐號 HEAT NO.	拉伸試驗 TENSILE TEST G.L.=50MM 降伏 Y.S. Mpa	抗拉 T.S. Mpa	伸長 EL. %	彎曲試驗 BEND TEST	硬度試驗 HARDNESS TEST HRB		C (x 100)	Mn (x 100)	Si (x 1000)	P (x 1000)	S (x 1000)	Cu (x 100)	Ni (x 100)	Cr (x 100)	Mo (x 100)	V (x 100)	Al (x 1000)	N (x 1000)	Ti (x 1000)	Nb (x 1000)
	SPECIFICATION												INF															
01	131931A00T		.600	1220			9060	45553					56		5	32	1	17	7						39			
02	131387A00S		1.150	1219			9895	65865					58		3	29	2	14	10						37			
03	131388A00S		1.150	1219			9590	45930					60		3	27	1	15	8						55			
04	131392A00S		1.150	1219			9030	57215					54		4	24	1	11	10						46			
05	131982A00S		.980	1219			8665	0254705					53		4	22	2	10	12						43			
06	131957A00S		.900	1210			9000	0254705					56		5	24	3	8	12						49			

註釋 NOTE: TOTAL WEIGHT: 58130

INF: FOR REFERENCE ONLY

SURVEYOR TO

茲證明本表所列製品，均依材料規格製造及試驗，並符合規格之要求。

WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

燁隆企業股份有限公司
YIEH LOONG ENTERPRISE CO., LTD.

簡洪儀

DEPUTY SUPERINTENDENT, COLD-ROLLING WORKS

FROM

TEST REPORT NUMBER : THJ0013374

APPLICANT: TONG YU INDUSTRY CO., LTD
NO2-32 LANE 518
SEC 3 CHUNGSHAN RD
CHANGHUA CITY CHANGHUA COUNTY 500
TAIWAN R.O.C.

DATE : JAN 06, 2006

SAMPLE DESCRIPTION:
ONE (1) GROUP OF SUBMITTED SAMPLES SAID TO BE :
SAMPLE DESCRIPTION : JIS G3141 SERIES + ANODIZING BLACK
DATE SAMPLE RECEIVED : DEC 30, 2005
DATE TEST STARTED : DEC 30, 2005
****

TESTS CONDUCTED:
AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE REFER TO ATTACHED PAGES.
****

PREPARED AND CHECKED BY:
FOR INTERTEK TESTING SERVICES
TAIWAN LIMITED

JACOB LIN
GENERAL MANAGER

Intertek Testing Services Taiwan Ltd.
8/F., No. 423, Ruiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
全國公證檢驗股份有限公司
114 台北市內湖區瑞光路 423 號 8 樓
Tel: (+886-2) 6602-2888 2797-8885 Fax: (+886-2) 6602-2410

NUMBER : THJ0013374

TESTS CONDUCTED

(A) TEST RESULT SUMMARY :

TESTING ITEM	RESULT (ppm)
	SUBMITTED SAMPLES
CADMIUM (Cd) CONTENT	ND
LEAD (Pb) CONTENT	26
MERCURY (Hg) CONTENT	ND
CHROMIUM VI (Cr^{6+}) CONTENT	ND

REMARKS : ppm = PARTS PER MILLION
ND = NOT DETECTED

(B) TEST METHOD :

TESTING ITEM	TESTING METHOD	REPORTING LIMIT
CADMIUM (Cd) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
LEAD (Pb) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
MERCURY (Hg) CONTENT	WITH REFERENCE TO USEPA 3052, BY MICROWAVE DIGESTION AND DETERMINED BY ICP-OES	2 ppm
CHROMIUM VI (Cr^{6+}) CONTENT	WITH REFERENCE TO USEPA 3060A & 7196A, BY ALKALINE DIGESTION AND DETERMINED BY UV-VIS	1 ppm

REMARK : REPORTING LIMIT = QUANTITATION LIMIT OF ANALYTE IN SAMPLE

****

END OF REPORT

Intertek Testing Services Taiwan Ltd.
8/F., No. 423, Ruiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
全國公證檢驗股份有限公司
114 台北市內湖區瑞光路 423 號 8 樓
Tel: (+886-2) 6602-2888 2797-8885 Fax: (+886-2) 6602-2410

中國鋼鐵 China Steel

1215-6.0

品質證明書 TEST CERTIFICATE

CHINA STEEL CORPORATION
中華民國高雄市小港區中鋼路1號
1 CHUNG KANG ROAD HSIAO KANG, KAOHSIUNG
TAIWAN, REPUBLIC OF CHINA.
TEL: (07)802-1111 FAX: (07)802-2511,(07)801-4427

940610

80096-01 0420

客戶名稱 SOLD TO	佳鋒工業股份有限公司 CAMELLIA METAL CO., LTD. 88, SEC. 2, CHANG HWA RD., CHUNG LI, TAOYUAN	產品名稱 PRODUCT	ROD-REPHOSPHORIZED&RESULFURIZED STEEL	
規格名稱	SAE 1215MS (SPEC)	提單號碼	FW54606779	說明書號碼 940071000095
		客戶名號	30808319	中鋼訂單編號 JP11145
檢驗	CSC MILL INSPECTION	交運日期 SHIPPING DATE	JUN 20, 2005	證明書日期 T/C ISSUE DATE JUN 21, 2005
T/C	01	客戶訂單編號 CUST. ORDER NO.		

項目 ITEM NO	產品序號 SEQ. NO.	直徑/厚 DIA/WIDTH MM	寬度 WIDTH	長度 LENGTH MM	數量 QTY	重量 WEIGHT KGS	爐號 HEAT NO.	降伏 Y.S.	抗拉 T.S.	伸長 EL %	C X10³	Mn X10²	P X10³	S X10³	Si	Cu	Ni X10²	Cr	Mo	Al X10³	備註 REMARKS
SPECIFICATION												110	40	130							
											MAX 9	140	90	420							
01	00259 01	7.00	TOTAL	COIL	10	14,712	3V6929				9	121	56	397							
					10	14,712															

附記 NOTES

成分查符

SURVEYOR TO	茲證明本表所列產品，均依材料規格製造及試驗，且符合規格之要求。 WE HEREBY CERTIFY THAT MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.

Y.C. Hwang
冶金技術處處長 GENERAL MANAGER, METALLURGICAL DEPARTMENT

Test Report

藝祺有限公司
彰化縣埔鹽鄉彰水路一段107號

報告號碼 : CE/2005/95071
日期 : 2005/09/30
頁數 : 1 of 2

以下測試樣品乃供應廠商所提供及確認：

樣品名稱 : SAE1215 SERIES
收件日期 : 2005/09/23.
測試日期 : 2005/09/23 TO 2005/09/30

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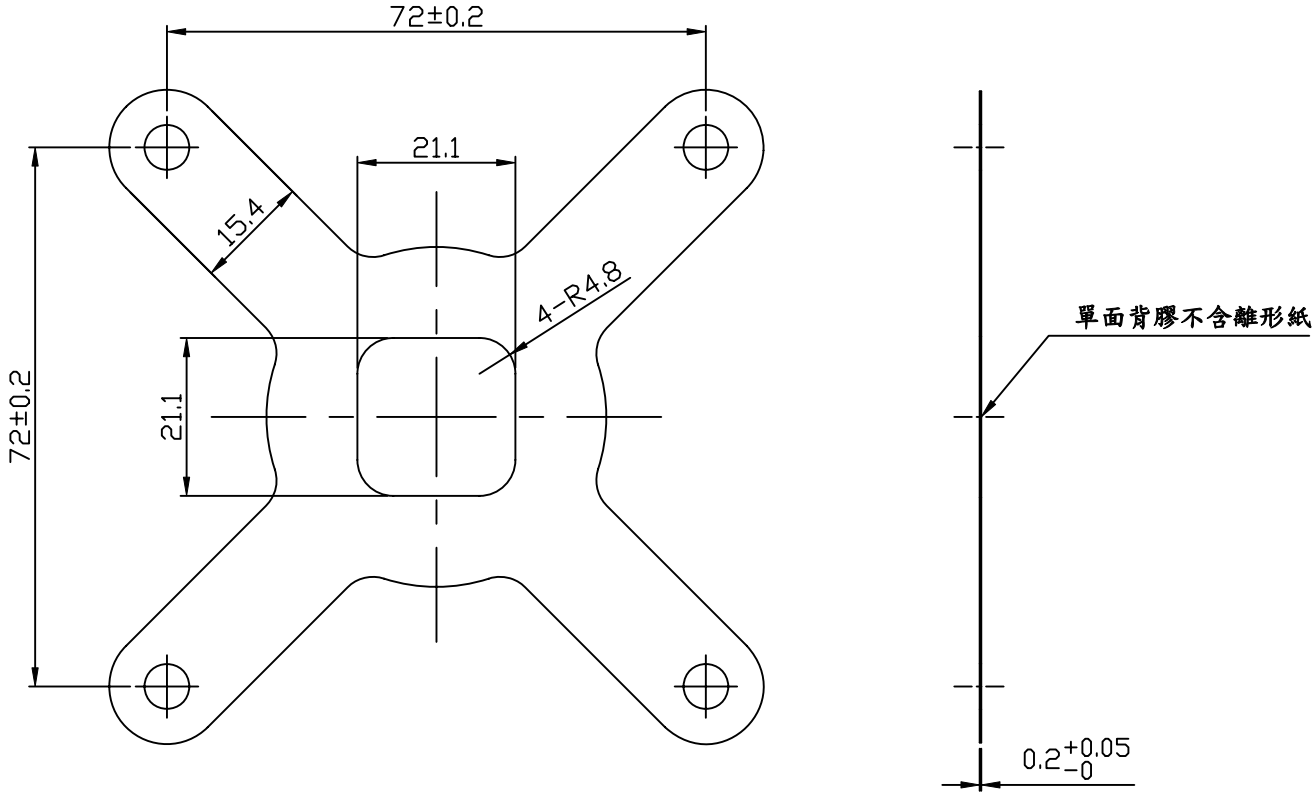
測試結果

測試部位 NO.1 : 鐵灰色金屬(請參照附件圖片)

測試項目：	單位	測試方法	偵測極限值	結果
				NO.1
六價鉻	ppm	依照US EPA 3060A方法, 用UV-VIS做分析	2	N.D.
鎘	ppm	依照 EN1122 方法B:2001或其他酸消化方法,用感應藕合電漿原子發射光譜儀(ICP-AES)做分析	2	N.D.
汞	ppm	依照 US EPA 3052 方法或其他酸消化方法,用感應藕合電漿原子發射光譜儀(ICP-AES)做分析	2	N.D.
鉛	ppm	依照 US EPA 3050B 方法或其他酸消化方法,用感應藕合電漿原子發射光譜儀(ICP-AES)做分析	2	15.3

備註：(1) N.D. = Not detected.(<MDL) / 未檢出(低於偵測極限值)
(2) ppm = mg/kg / 百萬分之一
(3) MDL= Method Detection Limit(偵測極限值)

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



TOL ± / RANGE	M1	M2	S1	S2	P1	P2	C	URS
0~6	0.05	0.10	0.15	0.20	0.05	0.10	0.50	**0.20**
6~30	0.10	0.20	0.15	0.25	0.10	0.15	1.00	**0.25**
30~120	0.15	0.25	0.20	0.30	0.20	0.40	2.00	**0.45**
120~300	0.15	0.30	0.25	0.45	0.40	0.80	3.00	**0.80**
300~600	0.20	0.50	0.40	0.60	0.60	1.20	3.00	**1.20**
600~1200	0.30	0.80	0.70	1.10	0.80	1.50	4.00	**1.50**
ANG. TOL±	1°							

MODEL	JAT050-2	NAME	Back-rubber	--
DRN	Fanny	12/11 2006	MATERIAL	#467MP+黑色PET
DSN	John	12/11 2006	FINISH	---
CKD	Richard	12/11 2006	CHIA CHERNE INDUSTRY CO.,LTD	
APPD	Auric	12/11 2006		

REV.	DESCRIPTION	SIGN	DATE

DIM IN	mm	DO NOT SCALE DWG		
SHEET	1	OF	1	
DRAWING NO.	JAT050-2			

Laminating Adhesives Data Page

FOD # 0330

3M™ 467MP Roll Laminating Adhesive
468MP Roll Laminating Adhesive

Product Construction

	Adhesive	Liner
467MP	2.0 mils (50 microns) #200MP "Hi-Performance" Acrylic Adhesive	4.0 mils (100 microns) 58# Tan Polycoated Kraft Paper
468MP	5.0 mils (125 microns) #200MP "Hi-Performance" Acrylic Adhesive	4.0 mils (100 microns) 58# Tan Polycoated Kraft Paper

Features

- High performance solvent-free acrylic adhesive for exceptional environmental resistance and enhanced bond strength.
- Superior adhesive smoothness for improved clarity and reduced telegraphing through thin plastic facestocks.
- High cohesive strength for resistance to edge lifting and slippage.
- 2.0 mil 467MP is ideal for application to relatively smooth surfaces.
- 5.0 mil 468MP is ideal for application to a variety of rough or textured surfaces.
- Moisture stable liner resists curling or wrinkling in high humidity.
- 200MP Hi-Performance adhesive is initially repositionable, then builds to high ultimate bond strength.

Applications

- Long term bonding of nameplates and decorative trim to metal and high surface energy plastics in the automotive, appliance and electronic markets.
- Excellent adhesive for bonding metal and plastic nameplates in the aerospace, instrumentation and medical markets.
- Used for lamination to back printed polycarbonate or polyester graphic overlay materials in the automotive, electronics and membrane switch markets.
- Used for lamination of wood veneers and plastic laminates to cabinetry and furniture.
- Used in the assembly of membrane switches, including spacers for circuit separation graphic overlay for switch display and bonding the complete switch to the application surface.

Physical Properties

(Typical values – not for specification use)

ASTM D-3330 (modified)
90 degree peel, 12"/min.
(305 mm/min) 2 mil
aluminum

		20 Min. Dwell	
	Product	**Oz./In. N/100 mm**	
- Metal (Stainless Steel)	467MP	44	48
	468MP	59	64
- High Surface Energy Plastic (ABS)	467MP	40	44
	468MP	52	57

3M Test (90 degree peel,
12"/min. 305 mm/min.)
2 mil aluminum to
various surfaces

		72 Hr. Dwell		Ultimate Bond	
	Product	**Oz./In. N/100 mm**		**Oz./In. N/100 mm**	
- Metal (Stainless Steel)	467MP	82	90	113	124
	468MP	109	119	178	194
- High Surface Energy Plastic (ABS)	467MP	47	51	43	47
	468MP	61	67	58	63
- Low Surface Energy Plastic (Polypropylene)	Not Recommended				

Environmental Performance

The properties defined are based on the attachment of impervious faceplate materials (such as aluminum) to an aluminum test surface.

Bond Build-up:	The bond strength of #200MP "Hi-Performance" Acrylic Adhesive increases as a function of time and temperature.
Humidity Resistance:	High humidity has a minimal effect on adhesive performance. Bond strengths are generally higher after exposure for 7 days at 90 degrees F (32 degrees C) and 90% relative humidity.
U.V. Resistance:	When properly applied, nameplates and decorative trim parts are not adversely affected by outdoor exposure.
Water Resistance:	Immersion in water has no appreciable effect on the bond strength. After 100 hours in room temperature water the bond actually shows an increase in strength.
Temperature Cycling Resistance:	Bond strength generally increases after cycling four times through: 4 hours at 158 degrees F (70 degrees C) 4 hours at -20 degrees F (-29 degrees C) 16 hours at room temperature
Chemical Resistance:	When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including gasoline, oil, "Freon" TF, sodium chloride solution, mild acids and alkalis.
Low Service Temp:	-40 degrees F (-40 degrees C).
Heat Resistance:	The #200MP "Hi-Performance" adhesive is usable for short periods (minutes, hours) at temperatures up to 400 degrees F (204 degrees C) and for intermittent longer periods of time (days, weeks) up to 300 degrees F (149 degrees C).
Shelf Life:	Product retains its performance and properties for two years from date of manufacture if properly stored at room temperature conditions of 72 degrees F (22 degrees C) and 50% R.H. Storage in plastic bag is recommended.

Processing

Die-cutting:	Excellent die-cuttability. For easier processing lubricate dies with Laminoleum vanishing oil available from Metal Lubricants (708-333-8900).
Roll Laminating:	Excellent processability. A combination of metal and rubber rollers with moderate pressure is recommended.

Special Considerations/Application Tips

For maximum bond strength the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane or isopropyl alcohol. Consult solvent manufacturer's Material Safety Data Sheet for proper handling and storage instructions.

Bond strength can also be improved with firm application pressure and moderate heat causing the adhesive to develop intimate contact with the bonding surface.

Ideal adhesive application temperature range is 70 degrees F to 100 degrees F (21 degrees C to 38 degrees C). Application is not recommended if surface temperature is below 50 degrees F (10 degrees C) because the adhesive becomes too firm to adhere readily. Once properly applied, low temperature holding is satisfactory. For more specific information contact our Customer Service and Sales Support "hot line" at 1-800-223-7427.

2/15/96

3M

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Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

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

Type of Product	:	3M TAPE PRODUCTS WITH 200MP ADHESIVE
Style/Item No	:	467MP, 468MP, 7952MP, 7955MP, 9667MP, 9668MP, 9492MP, 9495MP, 7953MP, 7945MP, 7956MP, 7957MP, 7959MP, 7961MP
Sample Received	:	2004/12/31 &2005/03/24 & 2005/08/31 & 2005/09/21
Testing Date	:	2004/12/31 TO 2005/01/07 & 2005/03/24 TO 2005/03/31 & 2005/08/31 TO 2005/09/08 & 2005/09/21 TO 2005/09/28

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Test Result : - Please see the next page -

* This report is combined with report of CE/2005/87179A *

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

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Result

PART NAME NO.1 : TRANSPARENT DOUBLE COATED TAPE (CE/2005/87179A & CE/2005/94442) (PLEASE REFER TO THE PHOTO ATTACHED)

Test Item (s):	Unit	Method	MDL	Result No.1
Asbestos				
Anthrophyllite(CAS NO.017068-78-9)	**	As per NIOSH 9000 method. Analysis was performed by XRD.	-	Negative
Crocodolite(CAS NO.012001-28-4)	**	As per NIOSH 9000 method. Analysis was performed by XRD.	-	Negative
Amosite(CAS NO.012172-73-5)	**	As per NIOSH 9000 method. Analysis was performed by XRD.	-	Negative
Tremolite(CAS NO.014567-73-8)	**	As per NIOSH 9000 method. Analysis was performed by XRD.	-	Negative
Chrysotile(CAS NO.012001-29-5)	**	As per NIOSH 9000 method. Analysis was performed by XRD.	-	Negative
Actinolite(CAS NO.013768-00-8)	**	As per NIOSH 9000 method. Analysis was performed by XRD.	-	Negative

Test Item (s):	Unit	Method	MDL	Result No.1
AZO		As per LMBG 8202-2		
4-AMINODIPHENYL (CAS NO.92-67-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
BENZIDINE (CAS NO.92-87-5)	ppm	Analysis was performed by GC/MS.	3	N.D.
4-CHLORO-O-TOLUIDINE (CAS NO.95-69-2)	ppm	Analysis was performed by GC/MS.	3	N.D.
2-NAPHTHYLAMINE (CAS NO.91-59-8)	ppm	Analysis was performed by GC/MS.	3	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Report No. : CE/2005/94442A
Date : 2005/09/28

Test Item (s):	Unit	Method	MDL	Result No.1
O-AMINOAZOTOLUENE (CAS NO.97-56-3)	ppm	Analysis was performed by GC/MS.	3	N.D.
2-AMINO-4-NITROTOLUENE (CAS NO.99-55-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-CHLOROANILINE (CAS NO.106-47-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4-DIAMINOANISOLE (CAS NO.615-05-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-DIAMINODIPHENYLMETHANE (CAS NO.101-77-9)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DICHLOROBENZIDINE (CAS NO.91-94-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHOXYBENZIDINE (CAS NO.119-90-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHYLBENZIDINE (CAS NO.119-93-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHYL-4,4-DIAMINODIPHENYLMETHANE (CAS NO.838-88-0)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-CRESIDINE(2-METHOXY-5-METHYLANILINE) (CAS NO.120-71-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-METHYLENE-BIS-(2-CHLORANILINE) (CAS NO.101-14-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-OXYDIANILINE (CAS NO.101-80-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-THIODIANILINE (CAS NO.139-65-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
O-TOLUIDINE (CAS NO.95-53-4)	ppm	Analysis was performed by GC/MS.	3	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
2,4-TOLUYLENDIAMINE (CAS NO.95-80-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4,5-TRIMETHYLANILINE (CAS NO.137-17-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
O-ANISIDINE (CAS NO.90-04-0)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-AMINOAZOBENZENE (CAS NO.60-09-3)	ppm	Analysis was performed by GC/MS.	3	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
CFC's(Chlorofluorocarbons)		With reference to US EPA 8260.		
Group I				
Chlorofluorocarbon-11(CAS No:000075-69-4)	ppm	Analysis was performed by GC/MS.(CFC's(Chlorofluorocarbons))	1	N.D.
Chlorofluorocarbon-12(CAS No:000075-71-8)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-113(CAS No:000076-13-1)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-114(CAS No:000076-14-2)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-115(CAS No:000076-15-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Group III				
Chlorofluorocarbon-13(CAS No:000075-72-9)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-111(CAS No:000354-56-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Chlorofluorocarbon-112(CAS No:000076-12-0)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-211(CAS No:135401-87-5)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-212(CAS No:076564-99-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-213(CAS No:060285-54-3)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-214(CAS No:002268-46-4)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-215(CAS No:000076-17-5)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-216(CAS No:001652-80-8)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Chlorofluorocarbon-217(CAS No:000422-86-6)	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
Chlorinated Paraffin (C10~C13) (CAS NO:010871-26-2)	%	Analysis was performed by GC/MS.	0.01	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
Formaldehyde(CAS No:000050-00-0)	ppm	With reference to DIN 53315 & USEPA 8315A. Analysis was performed by HPLC/DAD/MS	0.2	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
HCFC's(Hydrogenated chlorofluorocarbons)		With reference to US EPA 8260.		
Hydrochlorofluorocarbon-21(CAS No.:000075-43-4)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-22(CAS No.:000075-45-6)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-31(CAS No.:000593-70-4)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-121(CAS No.:000354-14-3)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-122(CAS No.:000354-21-2)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-123(CAS No.:000306-83-1)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-124(CAS No.:002837-89-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-131(CAS No.:000359-28-4)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.

Test Report

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TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Hydrochlorofluorocarbon-131b(CAS No.:000471-43-2)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-133a(CAS No.:000075-88-7)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-141b(CAS No.:001717-00-6)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-221	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-222(CAS No.:000422-30-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-223	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-224	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-225ca(CAS No.:000422-56-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-225cb(CAS No.:000507-55-1)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.

Test Report

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66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Hydrochlorofluorocarbon-226(CAS No.:000431-87-8)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-231	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-232	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-233	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-234	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-235(CAS No.:013838-16-9)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-241	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-242	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-243(CAS No.:000338-75-0)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Hydrochlorofluorocarbon-244	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-251	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-252	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-253(CAS No.:000354-06-1)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-261(CAS No.:000420-97-3)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-262(CAS No.:000420-97-3)	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.
Hydrochlorofluorocarbon-271	ppm	Analysis was performed by GC/MS. [HCFC's (Hydrogenated chlorofluorocarbons)]	1	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
Mirex(CAS NO:002385-85-5)	ppm	Analysis was performed by GC/MS.	4	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Organic-tin coumpounds				
Triphenyl Tin(TPT)(CAS NO:000668-34-8)	ppm	With reference to 83/677/EEC & DIN 38407. Analysis was performed by GC/FPD.	0.03	N.D.
Tributyl Tin(TBT)	ppm	With reference to 83/677/EEC & DIN 38407. Analysis was performed by GC/FPD.	0.03	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
PCBs(Polychlorinated Biphenyls)(CAS NO:001336-36-3)	ppm	With reference to USEPA 8082A. Analysis was performed by GC/ECD/MS.	0.5	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
Polychlorinated Naphthalene	ppm	With reference to USEPA 8081B. Analysis was performed by GC/MS.	5	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
1,1,1-trichoroethane	ppm	With reference to US EPA 8260. Analysis was performed by GC/MS.	1	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
Carbon tetrachloride	ppm	With reference to US EPA 8260. Analysis was performed by GC/MS/HEADSPACE.	1	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Chromium VI (Cr+6)	ppm	As per US EPA 7196A and US EPA 3060A.	2	N.D.
Arsenic (As)	ppm	ICP-AES after as per US EPA 3050B or other acid digestion.	2	N.D.
Beryllium (Be)	ppm	ICP-AES after as per US EPA 3050B or other acid digestion.	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 as per US EPA 3052 or other acid digestion.	2	N.D.
Nickel (Ni)	ppm	ICP-AES after as per US EPA 3050B 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.
Antimony (Sb)	ppm	ICP-AES after as per US EPA 3050B or other acid digestion.	2	N.D.
Tellurium (Te)	ppm	ICP-AES after as per US EPA 3050B or other acid digestion.	2	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
PCTs(Polychlorinated Terphenyls)	ppm	Analysis was performed by GC/ECD/MS.	0.5	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
PVC free(CAS No:9002-86-2)	**	Analysis was performed by FTIR/ATR and Pyro-GC/MS.	-	Negative

Test Item (s):	Unit	Method	MDL	Result No.1
Halogen		As per EN14582 method B.		
Halogen-Chlorine (Cl)(CAS No:007782-50-5)	ppm	Filling the oxygen and absorb solution in the flask and take sample in the flask and burn it, the absorb solution was analyzed by IC method.	50	N.D.
Halogen-Fluorine (F)(CAS No:007782-41-4)	ppm	Filling the oxygen and absorb solution in the flask and take sample in the flask and burn it, the absorb solution was analyzed by IC method.	50	N.D.
Halogen-Bromine (Br)(CAS No:007726-95-6)	ppm	Filling the oxygen and absorb solution in the flask and take sample in the flask and burn it, the absorb solution was analyzed by IC method.	50	N.D.
Halogen-Iodine (I)(CAS No:007553-56-2)	ppm	Filling the oxygen and absorb solution in the flask and take sample in the flask and burn it, the absorb solution was analyzed by IC method.	50	N.D.

Test Item (s):	Unit	Method	MDL	Result No.1
PCP(Pentachlorophenol) (CAS No:004901-51-3)	ppm	With reference to US EPA 8270D. Analysis was performed by GC/MS.	1	N.D.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

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.

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

Test Item (s):	Unit	Method	MDL	Result No.1
Halon		With reference to US EPA 8260.		
Halon-1211	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Halon-1301	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.
Halon-2402	ppm	Analysis was performed by GC/MS. [CFC's (Chlorofluorocarbons)]	1	N.D.

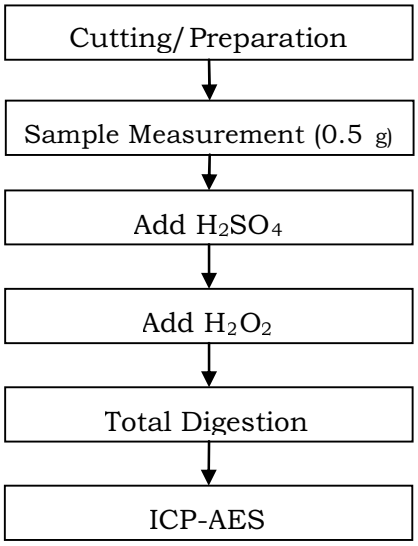
NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) " - " = No Regulation
(5) ** = Qualitative analysis (No Unit)
(6) Negative = Undetectable / Positive = Detectable

Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

These samples were dissolved totally by pre-conditioning method according to below flow chart.

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

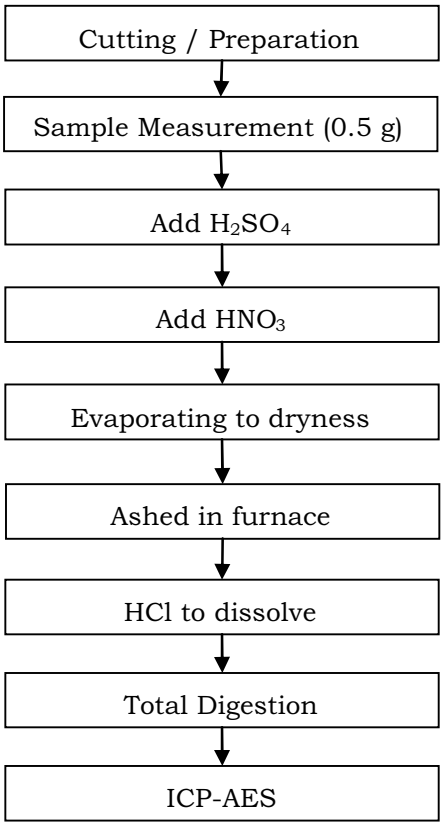


Test Report

3M TAIWAN LTD.
66, 800 LANE, CHUNG-SHAN SOUTH ROAD, YANG-MEI,
TAOYUAN, TAIWAN, R. O. C.

These samples were dissolved totally by pre-conditioning method according to below flow chart.

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



Report No. C507350
Date : Apr. 29, 2005

TEST REPORT

AMPLE DESCRIPTION

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

Sample Description	: PET Film TORAY
Item No.	: S10, S105, S28, S56, T60, F10, F65, F60, H10, T99, X30, X43, X44, X21, X20, X53, E20, E22, E60, E63, U34, U35, U426, E60L, E60V, C21, F53, E6SL, E6SV, PPS#3000, PPS#5000, PPS#3030, PPS#3A00, PPS#3030
Country of Original	: Japan
Date sample received	: Sep. 22, 2004
Date test started	: Sep. 23, 2004

****

TEST CONDUCTED

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

****

Prepared and checked by :
For Intertek Testing Services
Taiwan Limited

Jacob Lin
General Manager

Intertek Testing Services Taiwan Ltd.
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全國公證檢驗股份有限公司
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Tel : (+886-2) 6602-2888 · 2797-8885 Fax : (+886-2) 6602-2410

TEST CONDUCTED

(A) Test result summary :

Testing item	Result (ppm)
	Submitted samples
Antimony (Sb) content / 銻含量	185 (#3)
Arsenic (As) content / 砷含量	ND (#1)
Beryllium (Be) content / 鈹含量	ND (#1)
Nickel (Ni) content / 鎳含量	ND (#2)
Cadmium (Cd) content / 鎘含量	ND (#1)
Lead (Pb) content / 鉛含量	ND (#1)
Mercury (Hg) content / 汞含量	ND (#1)
Tellurium (Te) content / 碲含量	ND (#2)
Chromium VI (Cr^{6+}) content / 六價鉻含量	ND (#1)
PBBs/PBDEs / 多溴聯苯/溴聯苯醚	ND (#1)
Polychlorinated biphenyls (PCBs) / 多氯聯苯	ND (#1)
Polychlorinated naphthalenes (PCNs) / 多氯化萘	ND (#1)
Polychlorinated terphenyls (PCTs) / 多氯三苯	ND (#1)
Chlorinated paraffins / 氯化石蠟 (C10~C13)	ND (#1)
Mirex (Perchlordecone) / 滅蟻靈	ND (#1)
TBBP-A-bis / 四溴雙酚-A-雙-(2,3-二溴丙醚)	ND (#1)
TBBA / 四溴化二苯酚	ND (#1)
Formaldehyde / 甲醛	ND (#1)
Polyvinyl chloride (PVC) / 聚氯乙烯和聚氯乙烯混合物	ND (#1)
Organic tin compounds (Tributyl tin compounds, triphenyl tin compounds) / 有機錫化合物 (三丁基錫化合物, 三苯基錫化合物)	ND (#1)
Asbestos / 石綿	ND (#1)
Azo dyes compounds / 偶氮化合物	ND (#1)
Polychlorinated phenols / 多氯酚	ND (#1)
CFCs/HCFCs/Halon / 臭氧危害物質	ND (#2)
1, 1, 1 – Trichloroethane / 1, 1, 1, - 三氯乙烷	ND (#3)
Carbon Tetrachloride / 四氯化碳	ND (#3)

Remarks : ppm = Parts per million
ND = Not detected
#1 = The samples were tested on Sep. 30, 2004 report No. C414892 and the results were transferred to this report.
#2 = The samples were tested on Nov. 26, 2004 report No. C419530 and the results were transferred to this report.
#3 = The samples were tested on Apr. 25, 2005 report No. C506044 and the results were transferred to this report.

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Intertek Testing Services Taiwan Ltd.
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全國公證檢驗股份有限公司
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Tel : (+886-2) 6602-2888 · 2797-8885 Fax : (+886-2) 6602-2410

TEST CONDUCTED
(B) Test method :

Testing item	Testing method	Reporting limit
Antimony (Sb) content 銻含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Arsenic (As) content 砷含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Beryllium (Be) content 鈹含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Nickel (Ni) content 鎳含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Cadmium (Cd) content 鎘含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Lead (Pb) content 鉛含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Mercury (Hg) content 汞含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Tellurium (Te) content 碲含量	With reference to USEPA 3052, by microwave digestion and determined by ICP-OES	2 ppm
Chromium VI (Cr^{6+}) content 六價鉻含量	With reference to USEPA 3060A & 7196A, by alkaline digestion and determined by UV-Vis	1 ppm
PBBs/PBDEs 多溴聯苯/溴聯苯醚	With reference to USEPA 3540C, by solvent extraction and determined by GC-MSD	10 ppm
Polychlorinated biphenyls (PCBs) 多氯聯苯	With reference to USEPA 8082, by solvent extraction and determined by GC-ECD and GC-MSD	1 ppm
Polychlorinated naphthalenes (PCNs) 多氯化萘	With reference to USEPA 3540C, by solvent extraction and determined by GC-MSD	10 ppm
Polychlorinated terphenyls (PCTs) 多氯三苯	With reference to USEPA 3540C, by solvent extraction and determined by GC-MSD	10 ppm
Chlorinated paraffins (C10~C13) 氯化石蠟	With reference to USEPA 3540C, by solvent extraction and determined by GC-ECD and GC-MSD	10 ppm
Mirex (Perchlordecone) 滅蟻靈	With reference to USEPA 3540C, by solvent extraction and determined by GC-MSD	10 ppm
TBBP-A-bis 四溴雙酚-A-雙-(2,3-二溴丙醚)	With reference to USEPA 3540C, by solvent extraction and determined by HPLC-DAD	20 ppm
TBBA 四溴化二苯酚	As per DIN53313, by solvent extraction and determined by GC-ECD	20 ppm
Formaldehyde 甲醛	As per applicant's request with reference to DIN 53315 and determined by UV-Vis	5 ppm
Polyvinyl chloride (PVC) 聚氯乙烯和聚氯乙烯混合物	Beilstein's test (flame test) and FT-IR analysis	NA
Organic tin compounds (Tributyl tin compounds, triphenyl tin compounds)有機錫化合物 (三丁基錫化合物, 三苯基錫化合物)	With reference to ISO 17353, by solvent extraction and determined by GC-MSD	1 ppm
Asbestos 石綿	FT-IR analysis	NA
Azo dyes compounds 偶氮化合物	As per ISO/TS 17234:2003, EN 14362-1:2003, EN 14362-2:2003, determined by GC-MSD	5 ppm
Polychlorinated phenols 多氯酚	As per DIN53313, by solvent extraction and determined by GC-ECD	1 ppm
CFCs/HCFCs/Halon 臭氧危害物質	By Tedlar bag collection and determined by GC-MSD	1 ppm
1, 1, 1 – Trichloroethane 1, 1, 1, - 三氯乙烷	With reference to USEPA 5035 & 8021B, by purge – and – trap extraction and determined by GC-PID/ELCD	0.016 ppm
Carbon Tetrachloride 四氯化碳	With reference to USEPA 5035 & 8021B, by purge – and – trap extraction and determined by GC-PID/ELCD	0.016 ppm

Remarks : NA = Not applicable
Reporting limit = Quantitation limit of analyte in sample solution

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– END –

Intertek Testing Services Taiwan Ltd.
8F., No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan, R.O.C.
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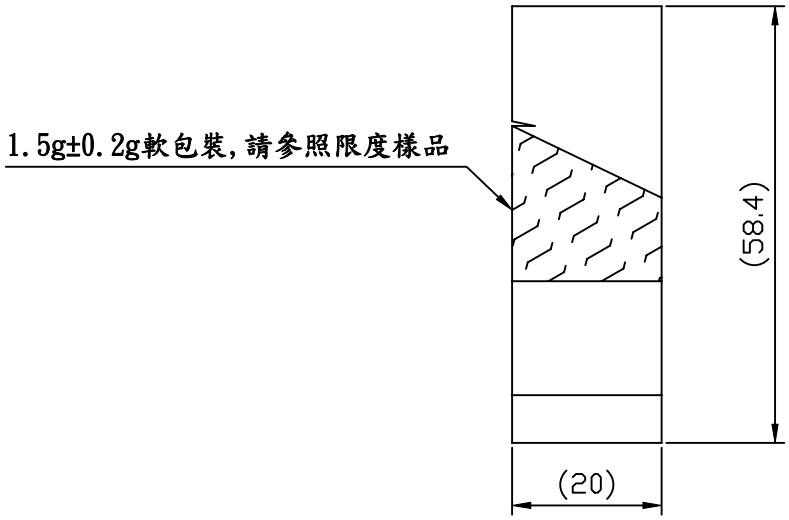


註:1. 導熱膏軟包封口不可破裂,致導熱膏外漏.

MODEL	JAP001A			NAME Thermal grease	—			
DRN	Fanny	11/12 2003	MATERIAL	--------	REV.	DESCRIPTION	SIGN	DATE
DSN	Angel	11/12 2003	FINISH		DIM IN	mm	DO NOT SCALE DWG	
CKD	Alex	11/12 2003	CHIA CHERNE INDUSTRY CO.,LTD		SHEET	1	OF	1
APPD	Jason	11/12 2003			DRAWING NO.	JAP001A		

DOW CORNING TORAY SILICONE

TECHNICAL INFORMATION

SC102

HEAT-TRANSFER COMPOUND

SC102 heat-transfer compound is a grease like silicone material heavily filled with heat-conductive metal oxide.
SC102 heat-transfer compound is an improved product that can be used in touch with silicone JCR, where most of silicone heat-transfer compounds cause swelling of JCR. SC102 also shows excellent heat conductivity as well very little oil bleed. SC102 has rather high consistency and it is easy to handle and can be used in many appliances.

Properties of SC102

Properties		Unit	SC102
Consistency, penetration un-worked		--	300
Oil bleed (120°C / 24hrs)		%	0.00
Specific Gravity		--	2.45
Thermal Conductivity		Cal / cm • sec. C	0.0019
Arc Resistance		sec.	123
Dielectric Constant	60 Hz	--	4.6
	1000 Hz	--	4.4
Dissipation Factor	60 HZ	--	0.034
	1000 HZ	--	0.024
Volume Resistivity		ohm • cm	4.8×10^{14}
Dielectric Strength		kV / 2.5mm	22

Properties of SC102 in comparison with SH340

Properties	SC102	SH340 [a])
Swelling of Silicone JCR [b]) Volume increase	0.9%	3.0%
Oil bleed on alminum plate 120°C / 24hrs	None	observed
Appearance after heating 150°C / 24hrs	No change	No change

a) Conventional silicone heat-transfer compound

b) Cured silicone JCR (SH6101) was immersed in heat-transfer compound at 120°C for 120hrs.

Dow Corning Toray Silicone Co., Ltd.

AIG Bldg. 1-3, Marunouchi 1-chome, chiyoda-ku

Tokyo 100-0005, Japan

TEL: 03-3287 8300

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/81840
Date : 2005/08/15
Page : 1 of 4

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

Type of Product	:	DOW CORNING TORAY SC102 HEAT SINK COMPOUND
Sample Received	:	2005/08/09
Testing Date	:	2005/08/09 TO 2005/08/15

==========

Test Result : - Please see the next page -

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

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/81840
Date : 2005/08/15

Test Result

PART NAME NO.1 : WHITE COLLOID (PLEASE REFER TO THE PHOTO ATTACHED)

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.

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/81840
Date : 2005/08/15

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 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) " - " = No Regulation

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/72052
Date : 2005/07/18

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

Type of Product	:	PACKING MEMBRANE
Sample Received	:	2005/07/11
Testing Date	:	2005/07/11 TO 2005/07/18

==========

Test Result : - Please see the next page -

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

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/72052
Date : 2005/07/18

Test Result

PART NAME NO.1 : MIXED TRANSPARENT PLASTIC MEMBRANE &TRANSPARENT PLASTIC MEMB (PLEASE REFER TO THE PHOTO ATTACHED)

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.

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/72052
Date : 2005/07/18

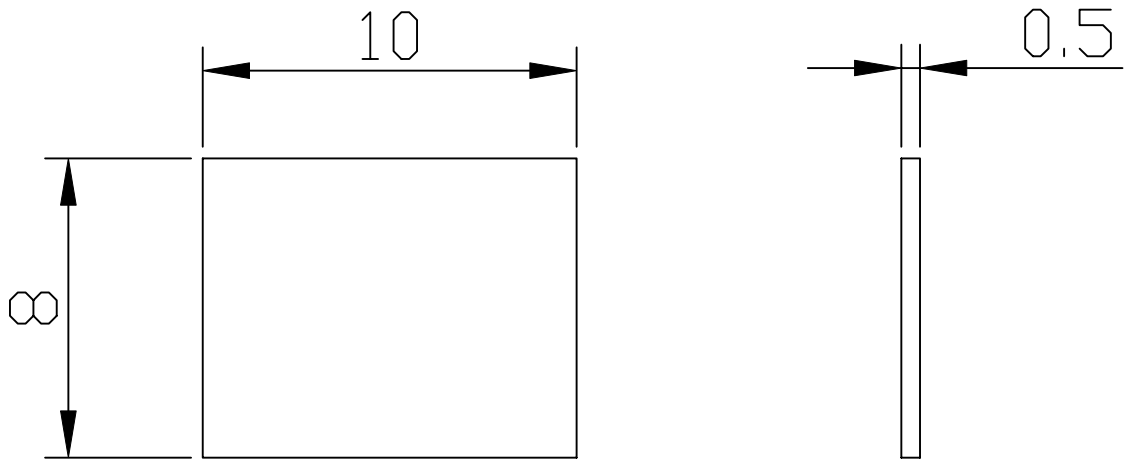
Test Item (s):	Unit	Method	MDL	Result
				No.1
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.	2	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.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

Test Report

SIL-MORE INDUSTRIAL LTD.
16F, NO. 100, HSIN TEH ROAD, SAN CHUNG CITY,
TAIPEI COUNTY, TAIWAN, R. O. C.

Report No. : CE/2005/72052
Date : 2005/07/18



TOL ± / RANGE	URS
0~6	0.20
6~30	0.30
30~120	0.45
120~300	0.80
300~600	1.20
600~1200	1.50
ANG. TOL±	1°

MODEL	PWJA07		NAME	Transparent Partition	--			
DRN	Fanny	08/10 2004	MATERIAL	PET	REV.	DESCRIPTION	SIGN	DATE
DSN	Robert	08/10 2004	FINISH	Transparent				
CKD	John	08/10 2004	CHIA CHERNE INDUSTRY CO.,LTD		DIM IN	mm	DO NOT SCALE DWG	
APPD	Auric	08/10 2004			SHEET	1	OF	1
					DRAWING NO.	PWJA07		

Test Report

NAN YA PLASTICS CORPORATION
NO. 2, CHUNGYANG INDUSTRIAL PARK, HSINKANG VILLAGE, CHIAYI COUNTY, TAIWAN

Report No. : CY/2006/50558
Date : 2006/05/22

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

Type of Product	:	AMORPHOUS POLYESTER SHEET
Style/Item No	:	NAN YA A-PET SHEET
Manufacturer/Vendor	:	HSIN-KANG 2ND PLANT PLASTICS 2ND DIV
Sample Received	:	2006/05/12
Testing Date	:	2006/05/12 TO 2006/05/22

==========

Test Result

PART NAME NO.1 : TRANSPARENT PLASTIC SHEET

PASS

Test Item (s):	Unit	Method	MDL	Result No.1	Spec.
EN 71 PART 3 Heavy metal content		As per EN 71 PART 3 : 1994 (A1 : 2000, AC:2000 and AC:2002) (EN 71 & BS 5665 are identical)			
Soluble Lead (Pb)	ppm	ICP-AES	5	< 5.0	90
Soluble Antimony (Sb)	ppm	ICP-AES	5	< 5.0	60
Soluble Arsenic (As)	ppm	ICP-AES	2.5	< 2.5	25
Soluble Barium (Ba)	ppm	ICP-AES	10	< 10.0	1000
Soluble Cadmium (Cd)	ppm	ICP-AES	5	< 5.0	75
Soluble Chromium (Cr)	ppm	ICP-AES	5	< 5.0	60
Soluble Mercury (Hg)	ppm	ICP-AES	5	< 5.0	60
Soluble Selenium (Se)	ppm	ICP-AES	5	< 5.0	500

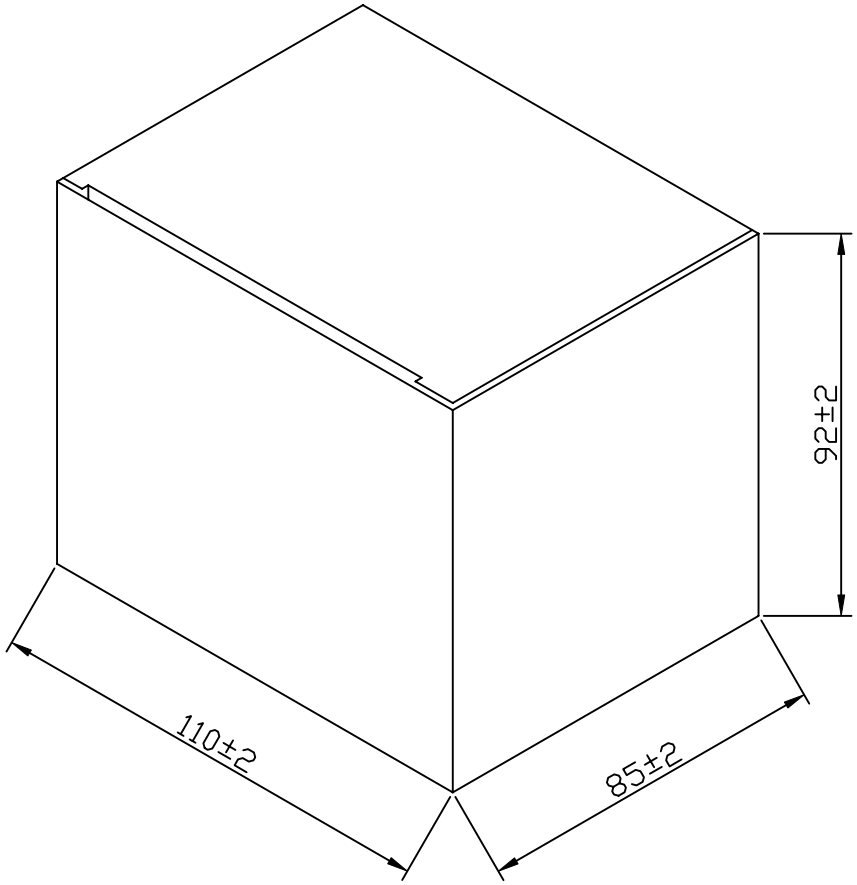
NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit

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

Test Report

NAN YA PLASTICS CORPORATION
NO. 2, CHUNGYANG INDUSTRIAL PARK, HSINKANG VILLAGE, CHIAYI COUNTY, TAIWAN

Report No. : CY/2006/50558
Date : 2006/05/22



MODEL	PBJA88		NAME	Box	--			
DRN	Joyce	11/17 2004	MATERIAL	---	REV.	DESCRIPTION	SIGN	DATE
DSN	John	11/17 2004	FINISH	---	DIM IN	mm	DO NOT SCALE DWG	
CKD	Angel	11/17 2004	CHIA CHERNE INDUSTRY CO.,LTD		SHEET	1	OF	1
APPD	Kavin	11/17 2004			DRAWING NO.	PBJA88		

Test Report

CHIU HO PAPER CO., LTD.
196, LANE 211, TUNG YUAN ROAD, HO MEI TOWN,
CHANGHUA COUNTY, TAIWAN 508

Report No. : CE/2004/C1590A
Date : 2004/12/16

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

Type of Product : KRAFT BOX
Sample Received : 2004/12/09
Testing Date : 2004/12/09 TO 2004/12/16

==========

Test Result

PART NAME NO.1 : BROWN CARTON (PLEASE REFER TO THE PHOTO ATTACHED)

PASS

Test Item (s):	Unit	Method	MDL	Result					Spec.
				No.1					
94/62/EEC									
Chromium VI (Cr+6)	ppm	As per US EPA 7196A and US EPA 3060A.	2	N.D.					-
Cadmium (Cd)	ppm	ICP-AES after as per EN 1122, method B:2001 or other acid digestion.	2	N.D.					-
Lead (Pb)	ppm	ICP-AES after as per US EPA 3050B or other acid digestion.	2	N.D.					-
Mercury (Hg)	ppm	ICP-AES after as per US EPA 3052 or other acid digestion.	2	N.D.					-
Total Lead+Cadmium+Mercury +Chromium VI	ppm	Total Lead+Cadmium+Mercury+Chromium VI (94/62/EEC)	-	N.D.					100

NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) " - " = No Regulation

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

SGS

Test Report

AVATACK CO., LTD.
NO. 21, SANMIN RD., FONGSHAN VILLAGE, HUKOU TOWNSHIP, HSINCHU COUNTY 303, TAIWAN (R. O. C.)

Report No. : CE/2006/10501
Date : 2006/01/10
Page : 1 of 5

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

Type of Product	:	PAPER LABEL
Style/Item No	:	CL0H, CL0HL, CL9A, CL9B, CLA5, CLA8, CLW3, CLW3A, CLW3L, CLW3X
Sample Received	:	2006/01/03
Testing Date	:	2006/01/03 TO 2006/01/10

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

SGS

Test Report

AVATACK CO., LTD.
NO. 21, SANMIN RD., FONGSHAN VILLAGE, HUKOU TOWNSHIP, HSINCHU COUNTY 303, TAIWAN (R. O. C.)

Report No. : CE/2006/10501
Date : 2006/01/10
Page : 2 of 5

Test Result

PART NAME NO. 1 : YELLOW PAPER LABEL

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 PBBEs(PBDEs)(Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.	-
Total of Mono to Nona-brominated biphenyl ether. (Note 5)	%		-	N.D.	0.1

SGS

Test Report

AVATACK CO., LTD.
NO. 21, SANMIN RD., FONGSHAN VILLAGE, HUKOU TOWNSHIP, HSINCHU COUNTY 303, TAIWAN (R. O. C.)

Report No. : CE/2006/10501
Date : 2006/01/10
Page : 3 of 5

PASS

Test Item (s):	Unit	Method	MDL	Result No.1	Limit of ROHS
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) 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.
(6) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs.

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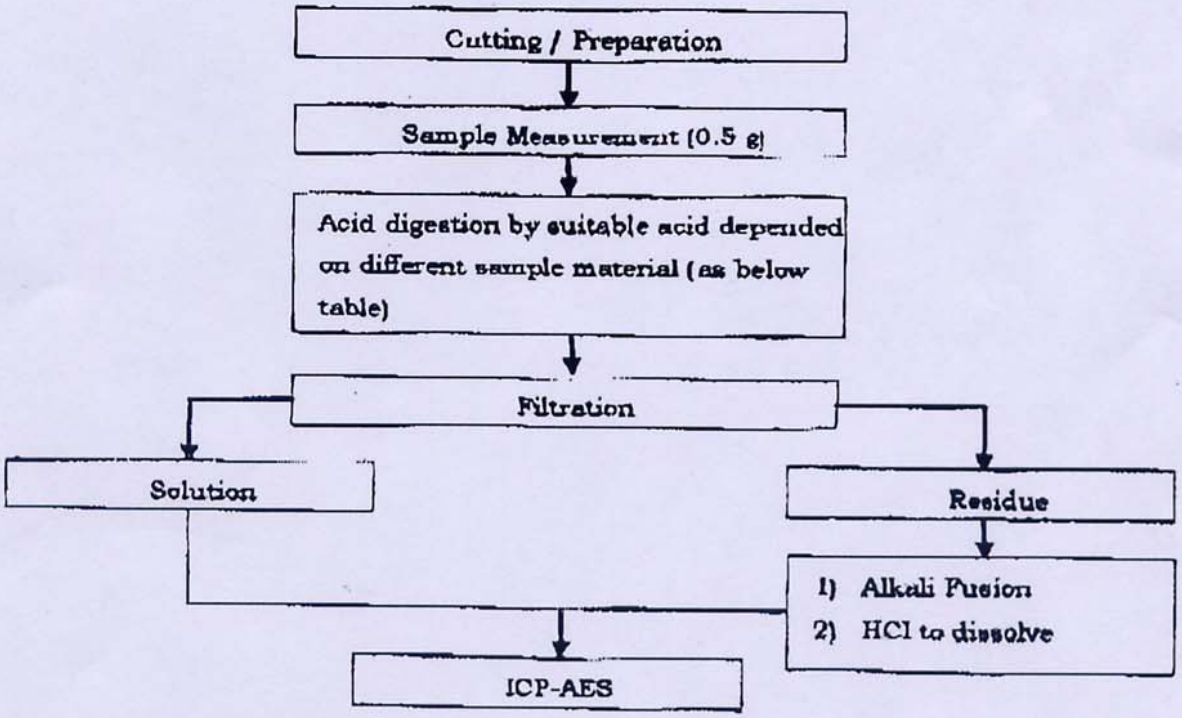
Test Report

AVATACK CO., LTD.
NO. 21, SANMIN RD., FONGSHAN VILLAGE, HUKOU TOWNSHIP, HSINCHU COUNTY 303, TAIWAN (R. O. C.)

Report No. : CE/2006/10501
Date : 2006/01/10

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 heavy metal analysis



Steel, copper, aluminum, solder	Agua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Any acid to total digestion

SONY

SONY
THERMAL
TRANSFER
RIBBON

TECHNICAL REPORT TR4085

			High density printing	Measure method
Ribbon property	Total thickness (μm)		8.6	Micrometer scale
	Substrate thickness (μm)		4.8	
	Ink thickness (μm)		3.5	
	Ink melting point (℃)		80	DSC method
	Transmission density		≧1.4	Macbeth scale
Printing property	Required pointing energy (mj/mm²)		14	Using standard printing of which printing speed at 3"/sec Label:FASSON 1C ※1 Macbeth scale ※2 Element rate = $\frac{\text{In spec element}}{\text{Element}} \times 100$
	Image density※1		1.8	
	Element ratio (%)※2		100	
	Coated label stock	NA55 (210min.)	○	Quality of transferability of 1dot thin bars, letters and solidness(Beck smoothness)
		FASSON 1C (350min.)	◎	
		SK coat (720min.)	◎	
	PET label stock	FLEXCON T/C387	○	
Durability※3	Friction resistance	Cotton contamination density	0.05	200g /2cm² load×100reciprocation
	Heat-pressing resistance	Cotton contamination density	0.15	80℃×2,000g/cm² load×10sec
	Heat resistance	80℃×3days	○	Scanning by pen scanner ○ : Good ※3 label:using FASSON 1C
	Pen scanner	50times	○	
	Water resistance	Dipping for 1HR	○	
	Ethanor resistance	Dipping for 10min.	○	
	Cold resistance	-20℃×12HR 50℃×12HR 3cycles	○	
Others	Usage condition		5~35℃ very good results	
	Storage condition		5~35℃,20~85%RH one year	

※Specifications may be changed without notice.

Sony Chemicals Corporation
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Sony Chemicals Corporation of America
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Tel:412(696)-7500 Fax:412(696)-7555

Sony Chemicals Europe B.V.
Diamantlaan 27,2132 WV Hoofddorp,The Netherlands
Tel:31(0)2503-50606 Fax:31(0)2503-20115

Sony Chemicals Singapore PTE LTD.
Block 1022 Tai seng Avenue, Tai Seng Industrial Estate
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T-04003E(7040102)

SONY

SONY
THERMAL
TRANSFER
RIBBON

PRODUCT
DATA
SHEET

TR4085

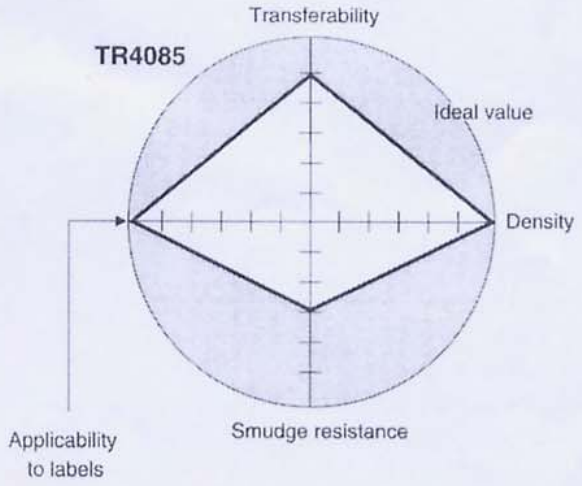
Use of bar code systems is getting wider year by year in areas of factory automation, physical distribution and retail market.Demand is increasing for thermal transfer ribbons to produce high quality smudge/scratch resistant images on various material of labels and tags.Such demand has encouraged Sony to produce TR4085,a truly unique ribbon that offers remarkable "void free" bar code /human readable imaging and smudge/scratch resistance on polyethylene wrapping bags.Sony TR4085 is applicable for both paper and plastic label in satisfying bar code requirements.

■Specific Features of TR4085

- ●Ideal for polyethylene wrapping bags and normal paper labels. High density and clear printing is possible.
- ●Particularly high density printing combined with smudge/scratch durability.
- ●Special printing condition is not necessary on the part of printers. The ribbon can be mounted on any existing major thermal transfer bar code printers.
- ●"Void free"bar code imaging.

Print sample

Features'Chart



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