

承認書

存 檔 編 號

承 認 印	核 准 敬 會		主 管 主 管		主 辦 主 辦	
		羅堅榮		羅堅榮	楊惠婷	

料 號	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	71020019010010													
品 名	ANT DIPOLE 2.4G 2dBi BLK WFW2315A1													

	暫 承 認		第 次
			限 量 PCS
			限量累計 PCS
✓	正 式 承 認	✓	新 設
			暫 承 認 封 面 更 換
			暫 承 認 圖 面 作 廢
	第 次變更		新 圖 面 追 加 頁
			舊 圖 面 作 廢 頁
			舊 封 面 更 換 頁

品管試驗文號			
安規指定	JET		CSA
	CE		CNS
	UL	✓	無
承認區分	✓	原始承認	多家承認
受文單位			
✓	✓	✓	✓
廠商	文管	生管	品保 採購

供 應 廠 商 資 料	發 行 章
廠商零件代號	
生產廠商名稱	
代理廠商名稱	
備 註	

(注意 1) 採購部僅發行本封面。

(注意 2) 承認時要確認事項 => 舊圖面,本圖面,樣品,有關零件等之性能,形狀尺寸,影響及其他。

生效日期以發行章為準。舊封面作廢請各單位自行更換

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

泰鉅科技股份有限公司

日 期
DATE

2008/6/25

品 名
DESCRIPTION

WSS001 2.4GHz Dipole Antenna
with RP-SMA(M)(Black)(SM3056)

客 戶 料 號
CUSTOMER P/N

成 品 編 號
Part NO.

WFW2315A1



萬旭電業股份有限公司

WANSHIH ELECTRONIC CO., LTD.

台北縣五股鄉五工六路 72 號 3 樓

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

TAIPEI HSIEN, TAIWAN, R.O.C.

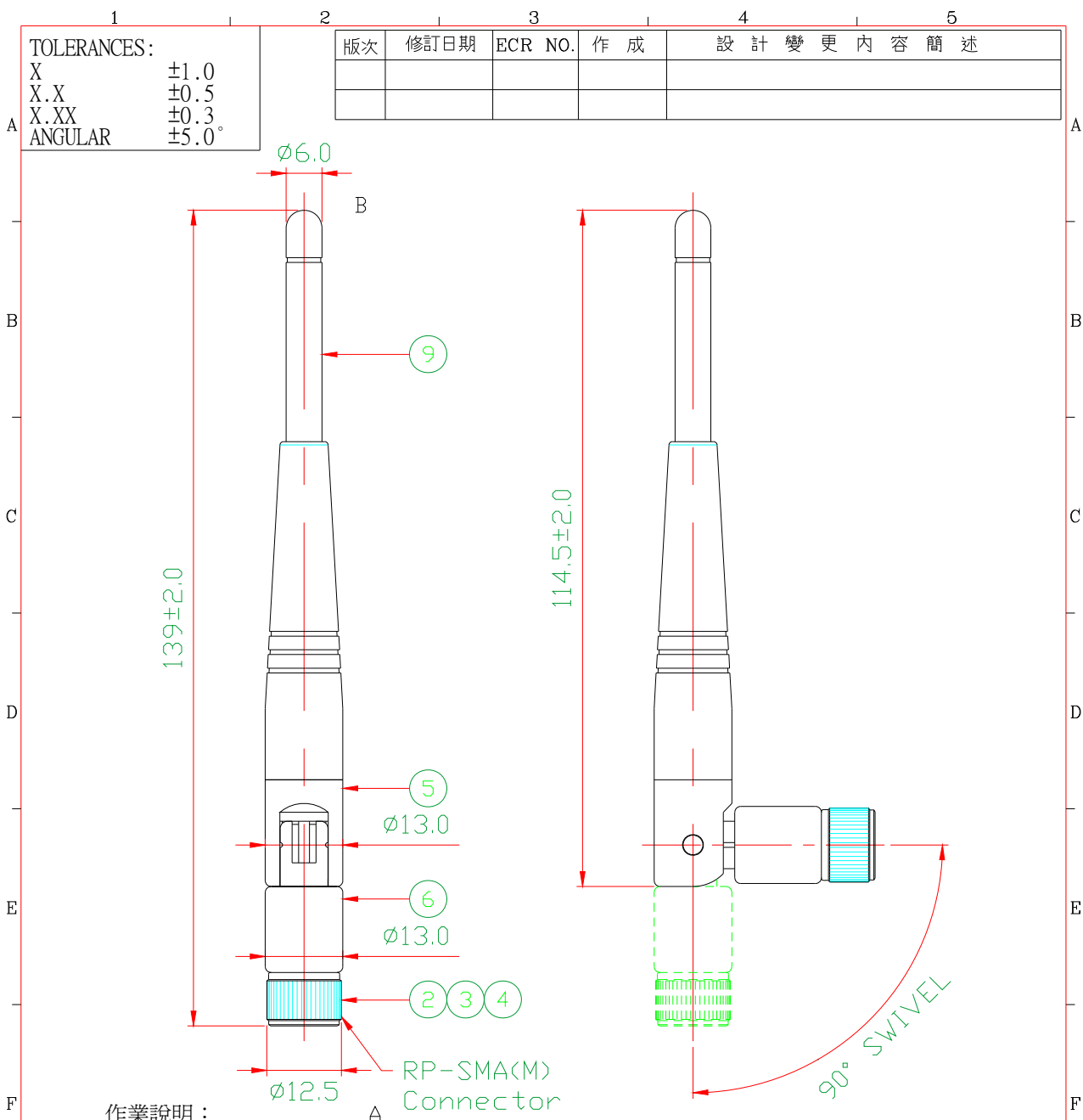
TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

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SPECIFICATION

- | | |
|-------------------------------|---|
| 1. Description | : 2.45GHz Swivel Type Antenna
With RP-SMA(M) |
| 2. Customer | : 泰鉅科技股份有限公司 |
| 3. Model No. | : WSS001 |
| 4. Part No. | : WFW2315A1 |
| 5. Standard | : IEEE 802.11b/g Wireless LAN |
| 6. Antenna Profile | : 139 mm (see Drawing) |
| 7. Color | : Black |
| 8. Electrical Characteristics | |
| Operating Frequency | : 2.4~2.5GHz |
| Antenna Type | : Dipole |
| Polarization Type | : Linear |
| Type of Radiation | : Toroidal |
| Antenna Gain | : 2.0 dBi Typical |
| Impedance | : 50 Ohm nominal |
| V.S.W.R. | : 2.0:1 Max. |
| 9. Mechanical Characteristics | |
| Swivel | : 90 degrees |
| Connector | : RP-SMA(M) |
| Core | : N/A |
| 10. Raw Material | |
| Coaxial Cable | : RG-178 |
| Housing | : TPU |
| Hinge | : PC+ALLOY |



作業說明：

1. 天線本體，WSW0028 2dBi 天線作業標準指導書規定製作。

依據 QA-0028 QC管理工程圖，執行品質管制。

9	外套 L96<黑>	√	B2WSS001L096IT	@WSS001 13 φ *96L 外套<黑>	黑	1	或同級品
8	銅管 L26	√	B052260L00000Z	@5.2 φ *26.0L*0.25t 銅管	銀	1	或同級品
7	固定鉚釘(黑鋅)	√	B02892200160A5	@028922001-6 4.80*1.95 φ 固定鉚釘<大>(黑鋅)	黑	2	或同級品
6	下座<黑>	√	B130L02550001I	@13 φ 下座 * 25.5L <黑>	黑	1	或同級品
5	上座	√	B130L028000A1I	@13 φ 上座 * 28L <黑>	黑	1	或同級品
4	連接軸	√	B0SM3056C000A5	@SM3056-C 連接軸	銀	1	或同級品
3	絕緣 母PIN	√	B0SM3056B000A5	@SM3056-B 絕緣 母PIN	白/金	1	或同級品
2	RP-SMA φ12.5 本體	√	B0SM3056A000A5	@SM3056-A 本體 RP-SMA(M) φ 12.5 Connector W/P	黑	1	或同級品
1	RG-178 Coaxial Cable	√	19RG17800030AE	@RG-178 CABLE 105SV(萬泰)	橙	110	或同級品
NO	材料名稱	環材	電腦編號	零件規格	顏色	切斷尺寸	用量 備註

修訂日期：

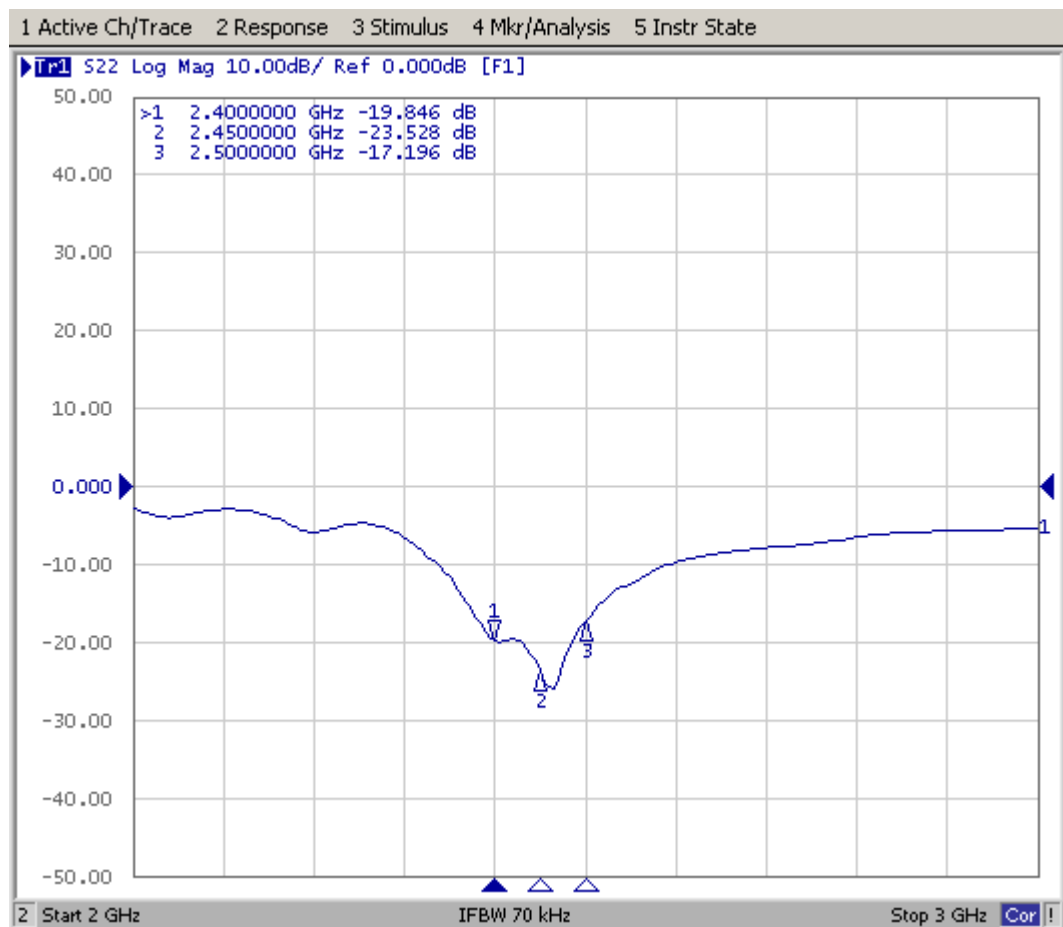
制訂日期：2008/06/25

頁數：1/1	核 准	審 查	作 成	承認圖號	WSS001 2.4GHz Dipole Antenna with RP-SMA(M)(Black)		
第三角法	Jason	李金昭	郭雅珍	品 名			
單位：mm				成品編號	WFW2315	REV A	VERSION 1
比例：FREE							

萬旭電業股份有限公司 文件編號：FMT-0513-D7

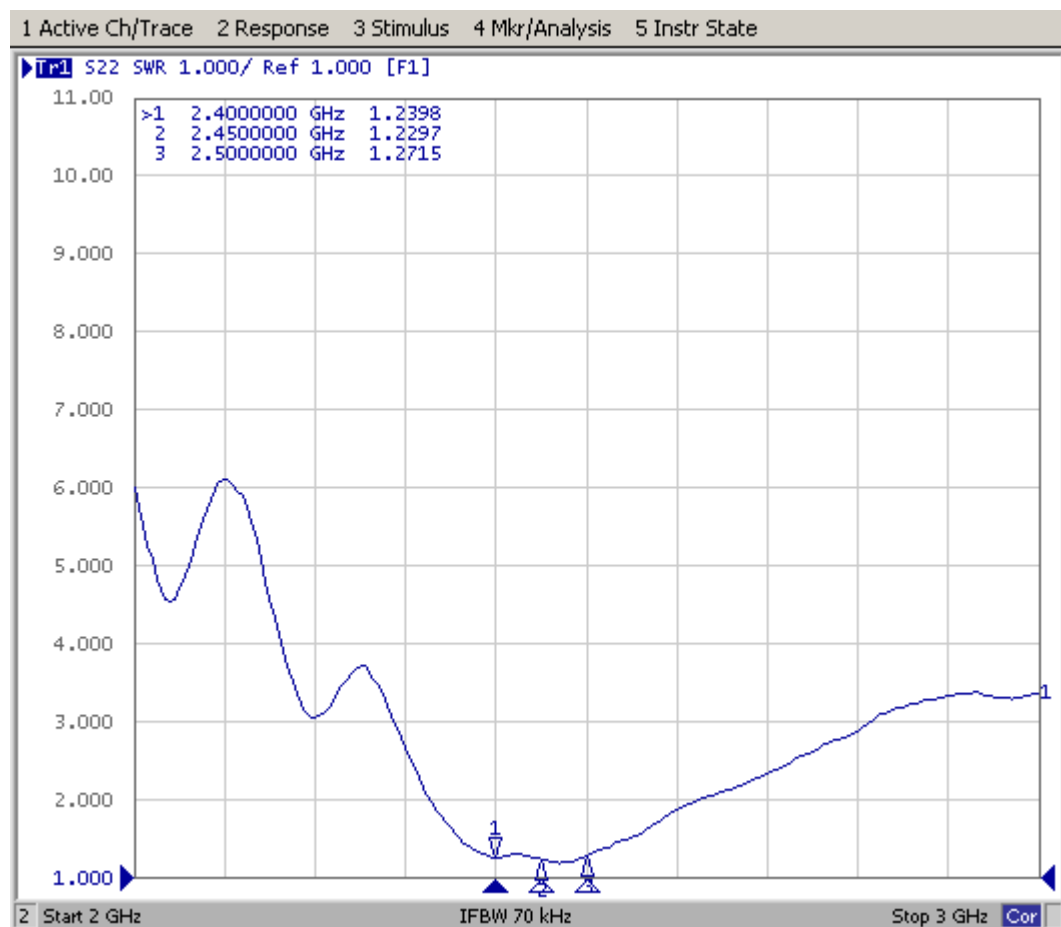
Electrical Properties

Return Loss



Electrical Properties

V.S.W.R



Electrical Properties

Radiation Pattern – H Plane

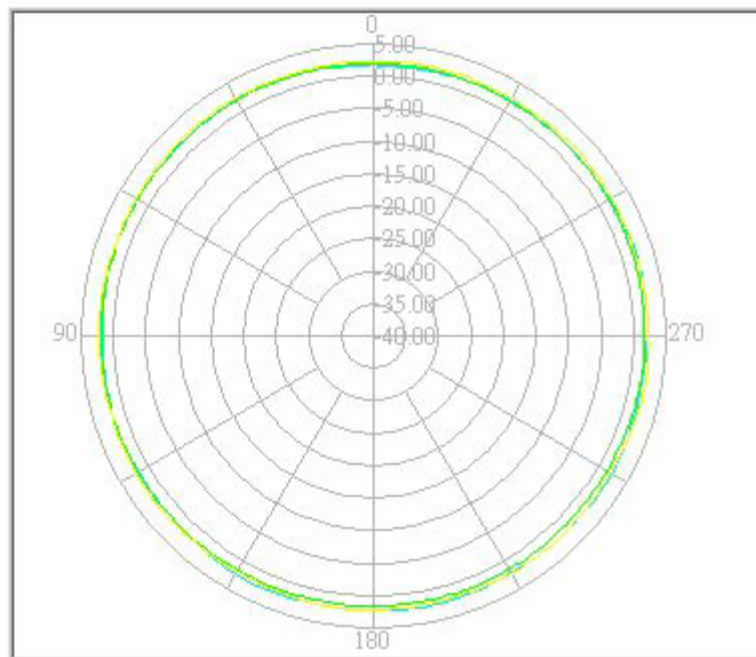


萬旭電業股份有限公司

Model No: WSS001

Antenna Position: Vertical

Test Mode: H-plane



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	2.49	169.63	2.07
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	2.03	336.81	1.81
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2500.00	2.51	100.07	2.25

Electrical Properties

Radiation Pattern – E Plane

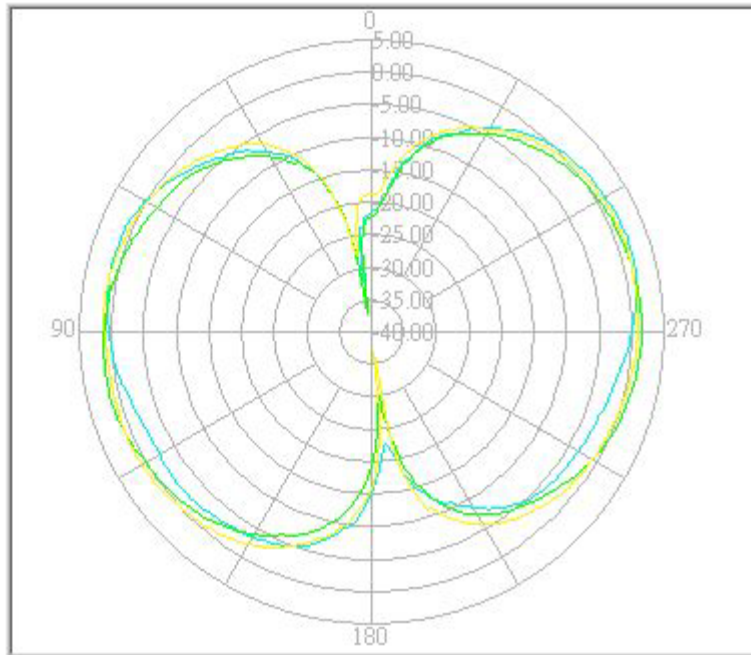


萬旭電業股份有限公司

Model No: WSS001

Antenna Position: Horizontal

Test Mode: E-plane



Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	1.97	69.56	-2.37
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2450.00	1.59	87.86	-2.04
Freq(MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2500.00	1.36	70.78	-1.60

Coaxial Cable Data Sheet
RG-178

SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

STYLE : 105°C 30V
RG-178B/U

SIZE: 7/0.102 SCCS

RECOGNIZED: UL 1979



WONDERFUL HI-TECH CO.,LTD

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

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

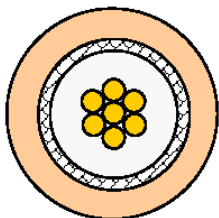
FACTORY : 17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

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



WONDERFUL HI-TECH CO., LTD

SPECIFICATION

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

AK001/210X297/1.0

PAGE : 1

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG



WONDERFUL HI-TECH CO., LTD. SPECIFICATION

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

AK001/210X297/1.0

PAGE : 2

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG

Housing Material Data Sheet

- Housing – TPU

Bayer MaterialScience



Inspection certificate (EN 10204-3.1)

Bayer MaterialScience AG
51368 Leverkusen

Bayer MaterialScience Ltd.
(Hong Kong Warehouse)
BMS Plant NLSY
3 Kin Chuen Street
HONG KONG-N.T.
HONG KONG

2006-04-09

Page 2

Product name DESMOPAN 182 000000 PE/ALU-BAG 25KG CP1-HT 1000KG		Product number 03375345	
Customer purchase order data			
Ship to party 871139 Bayer MaterialScience Ltd		Order quantity 18000 KG	Your purchase order number 006058577
Order data			
Order no. 2010077051	Delivery no. 3007381586 / 10	Quantity delivered 18000 KG	
Batch data			
Batch no. 35GDSN2902	Quantity delivered 15375 KG		
Inspection	Results	Units	
ISO 1468 , DIN 53505			
Shore Hardness A	94		
ISO 97 , DIN 53504 NSI			
Tensile Strength at break	56	N/mm²	
ISO 97 , DIN 53504 NSI			
Elongation at break	477	%	
ISO 988			
Shore Hardness D	43		

If any questions arise, please call:
H. Hackenbroich

Tel: +49 2140 51 4500
Fax: +49 2140 51 4500
Mail: hars.hackenbroich@bayermaterialscience.com

0715-26571710
0715-26571704 (2-8) 7'S

1. This notification was generated electronically and is also valid without signature.
2. The data given here are characteristic values. No assurance or guarantee is implied. This notification does not release the customer from any agreed upon obligation by the customer to inspect the goods received.
3. These findings have been confirmed by an independent approval authority. The approval authorities appointed by BMS are recorded in the DM system.

MaterialScience



Inspection Certificate "3.1.B" EN 10204

Bayer MaterialScience AG
51368 Leverkusen

Bayer Polymers Co. Ltd.
99 Queen's Road Central
HONGKONG-77/F THE CENTER
HONGKONG

2004-08-06

Page 1

Product name DESMOPAN 259 000000 Old Color-No: 000		Product number 03503559	
Customer purchase order data			
Ship-to party 382671 Bayer Polymers Co. Ltd.		Order quantity 10500 KG	Your purchase order number 0030030115
Order data			
Order no. 2010535495	Delivery no. 2008300455 / 10	Quantity delivered 10500 KG	
Batch data			
Batch no. 35CD4E2410	Quantity delivered 10500 KG		
Inspections	Results	Units	
Flexural Strength	11		
Flexural Modulus	161	N/mm²	
ISO 37, DIN 53504, NSI			
Tensile Strength at Break	48	N/mm²	
ISO 37, DIN 53504, NSI			
Elongation at break	380	%	
ISO 37, DIN 53504			
Shore hardness, D	57		

If any questions arise, please call:
Dr. Tröben

Tel: +49 2140 61-5867 0755-26571710 (业务) 91'S
Fax: +49 2140 61-4550 0755-26571704
Mail: ludwig.troben@bayermaterialscience.com

HT-02-014

- Hinge (Base/Holder) – PC+ALLOY

SHINBLEND[®] ALLOY ENGINEERING PLASTIC DIVISION	SHINKONG SYNTHETIC FIBERS CORPORATION 新 光 合 成 纖 維 股 份 有 限 公 司 8th Fl., 123, Sec.2, Nanking East Road, Taipei, Taiwan Tel : 886-2-2507-0131 886-2-2507-1251(30Lines) 886-3-4932131-1730 Fax : 886-2-2506-8047 886-3-491-5763
---	---

Technical Data

工塑營業處

李文桂 分機 7548 行動：0935627706

台北市南京東路二段123號8樓

電話：02-25071251 FAX：02-25068047

SHINBLEND[®] A724NA

High Impact Grade / 超韌級：AD4011

電話：02-25071251 FAX：02-25068047		Unit	Test Method		Values
Mechanical properties		機械性質			
Izod Impact(Notched) 23°C	衝擊強度	Kg-cm/cm	ASTM	D256	85
-20°C	衝擊強度	Kg-cm/cm	ASTM	D256	70
-40°C	衝擊強度	Kg-cm/cm	ASTM	D256	65
Tensile Strength	拉伸強度	Kg/cm ²	ASTM	D638	540
Elongation	拉伸率	%	ASTM	D638	100
Flexural Strength	彎曲強度	Kg/cm ²	ASTM	D790	800
Flexural Modulus	彎曲模數	Kg/cm ²	ASTM	D790	20000
Rockwell Hardness	洛式硬度	R	ASTM	D785	115
Thermal properties		熱 性 質			
Heat Deflection Temperature	熱變形溫度		ASTM	D648	
66psi		°C			-
264psi		°C			100
Flammability	防火性	-	UL94		-
Melting Point	熔點	°C	DSC		223
Electrical properties		電氣性質			
Dielectric Strength	介電強度	KV/MM	ASTM	D149	-
Dielectric Constant	介電常數	...	ASTM	D150	-
Volume Resistivity	體積電阻	Ω-CM	ASTM	D257	-
Other properties		其它性質			
Specific Gravity	比重	-	ASTM	D792	1.19
Water Absorption	吸水率	%	ASTM	D570	0.14
Mold Shrinkage	成形收縮率		ASTM	D955	
Flow	流動方向	%			0.4~0.6
Cross Flow	垂直方向	%			0.5~0.7

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2002/6