GOWORLD

广东汕头超声电子股份有限公司覆铜板厂

GUANGDONG GOWORLD LAMINATION PLANT

GW1500&GW1500P

High Reliable Multi-functional Epoxy CCL&Prepreg

产品特点

- 适用于多层板无铅制程
- Tg 值 150℃（DSC）
- 优良的耐热性能，T288>30min，T300>15min,Td>350℃
- 较低的 CTE（Z-axis）
- 较低的吸水率
- 优良的耐离子迁移性能

FEATURES

- Sutible for multi-layer lead-free process
- Tg 150℃（DSC）
- High thermal resistance,T288>30min，T300>15min,Td>350℃
- Low CTE(Z-axis)
- Low moisture absorption
- Excellent CAF resistance

基本性能 GENERAL PROPERTIES

Test Item		Treatment Condition	Unit	SPEC	Typical Value
Tg		DSC(E-2/105)	℃	135～150	159.23
Td		TGA(5%Wt Loss,10℃/min)	℃	>340	357
CTE Z-axis	**Before Tg**	TMA	μ m/m℃	<60	45
	After Tg			<300	240
T260		TMA	min	>30	>60(T300>20min)
Surface Resistivity		F	MΩ	≥10^4	7.57×10^7
Volume Resistivity		F	MΩ-cm	≥10^6	6.96×10^8
Dielectric Breakdown		D-48/50+D-0.5/23	KV	≥40	50
Arc Resistance		A	s	≥60	97
Thermal shock		288℃,20s	s	no delamination	>600s
Dielectric Constant (1MHz)		C-24/23/50	-	≤5.4	4.6
Dissipation Factor (1MHz)		C-24/23/50	-	≤0.035	0.013
Pressure Cooker Test		1.5atm/2hr/288℃ Dipping 10s	s	no delamination	>480s
Flexural Strength	**LW**	A	N/mm^2	≥415	452
	CW			≥345	357
Flammability		UL-94	-	V-0	Pass
Peel Strength		A	N/mm	≥1.05	1.52
Moisture Absorption		E-1/105+des+D-24/23	%	≤0.35	0.08
CTI		A	V	≥175	200

Sample Thickness:1.6mm,copper foil,1 oz

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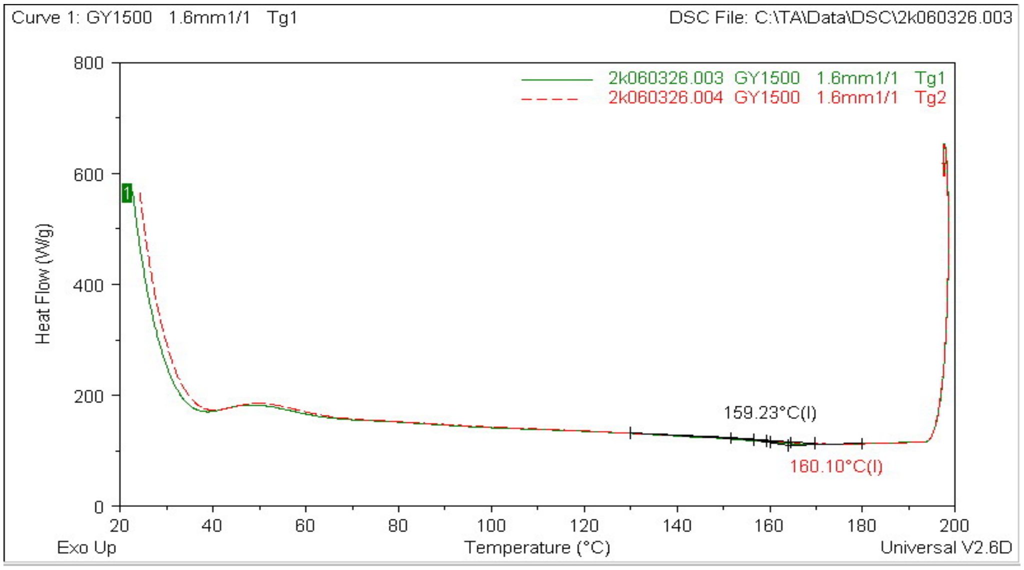
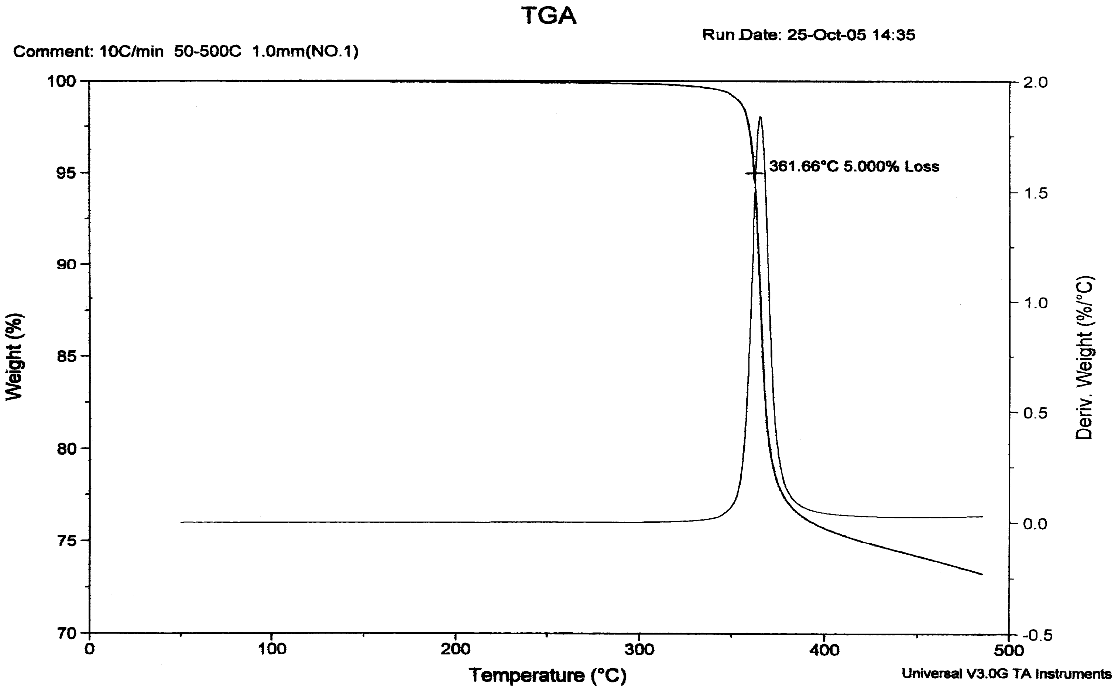
◆Tg(DSC)＝159℃



◆High Td:TGA-Td(5% Wt Loss,10℃/min)＝361℃



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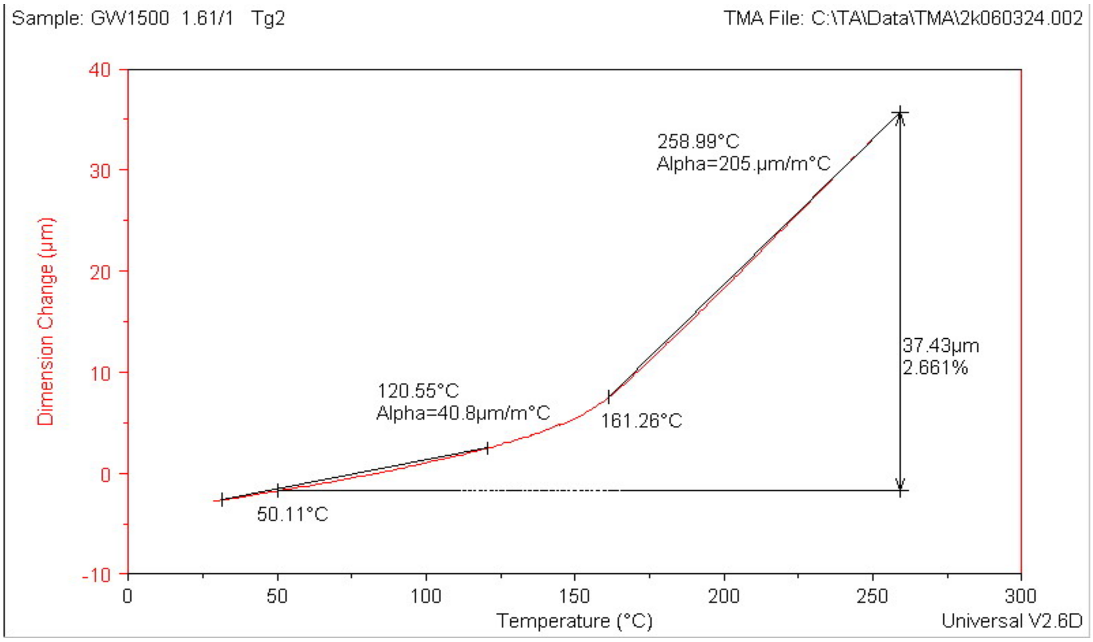
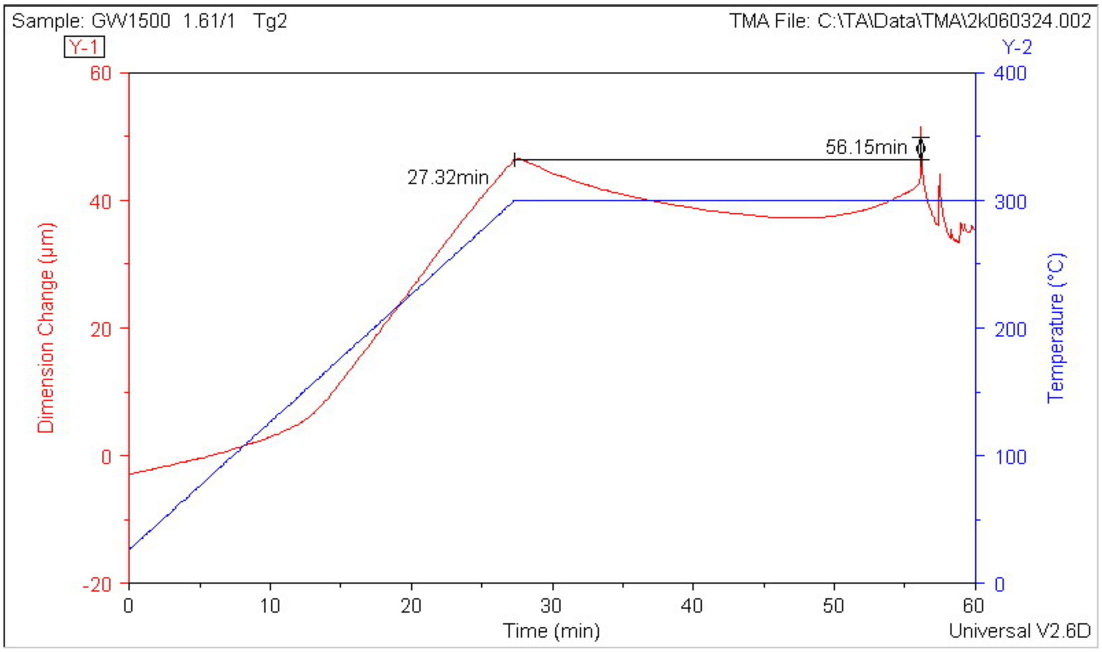
◆Lower CTE(Z-axis)



◆Long De-lamination Time：TMA-T300>20min



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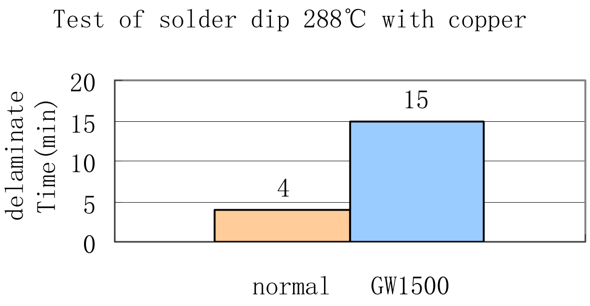
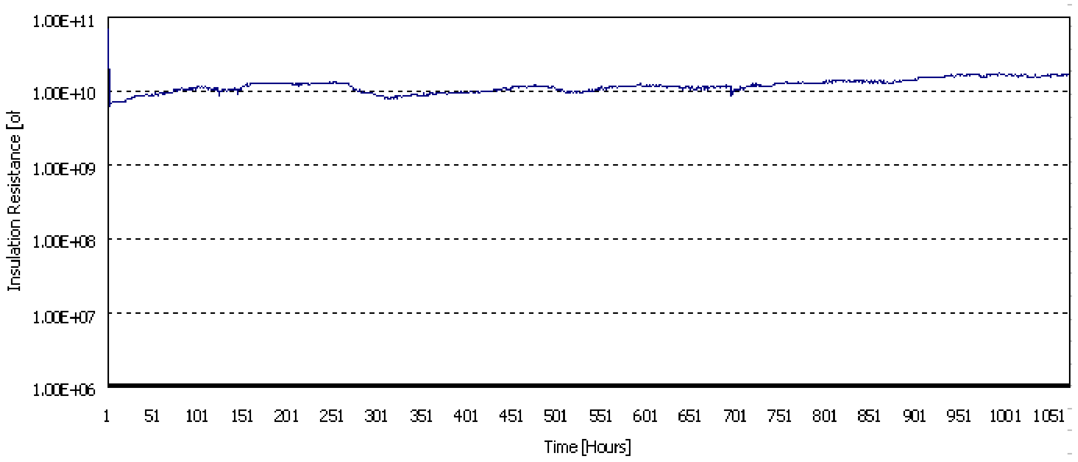
◆High thermal resistance



◆Excellent CAF resistance



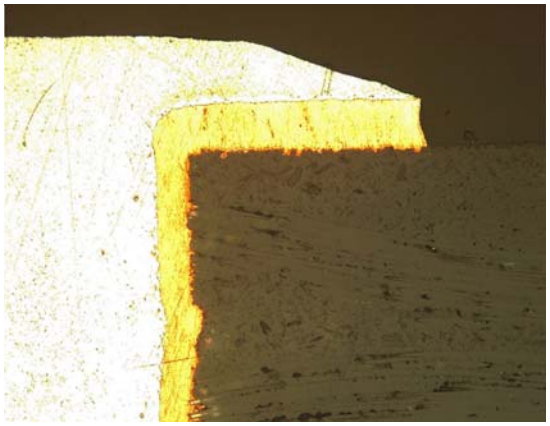
Test Construction:85℃/85%RH/DC50V

Sample Construction:TH-TH 0.45mm,Sapce 0.35mm

◆Higher PTH Reliability(less pad lift and PTH Crack)

经两次无铅喷锡及 288℃/10s/3cycle flow

经无铅喷锡及 6 次模拟无铅回流焊



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半固化片性能表 Performance List for prepreg

Glass Fabric Style	Resin Content (%)	Resin Flow (%)	Gel Time(s)	Volatile Content (%)	Scaled Flow Thickness(mm)
1080	66±3	35±5	85±20	<0.5	0.075±10
2116	55±3	27±5			0.115±15
7628	45±3	19±5			0.190±20

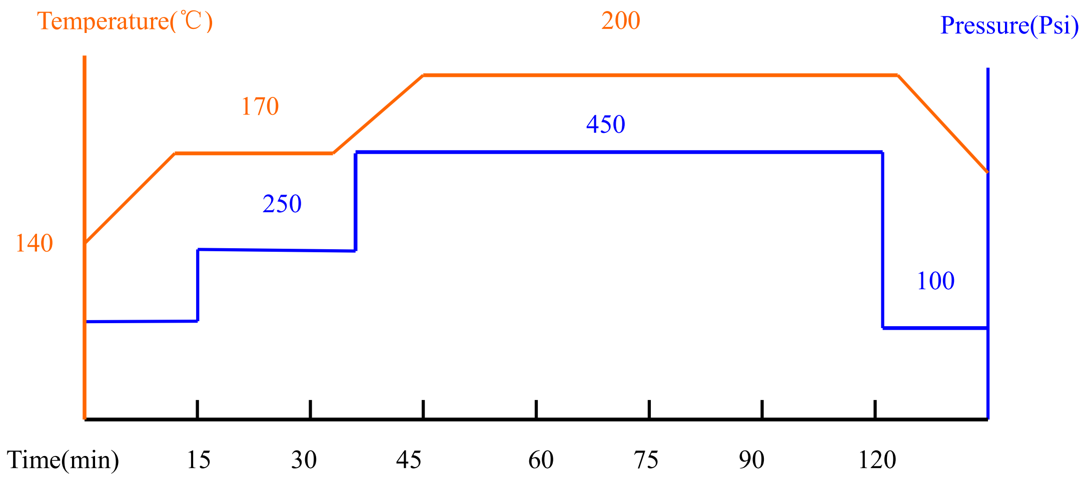
可根据客户要求提供不同布型和含量的半固化片

We can provide PP with different style and Resin Content to satisfy the consumer.

标准长度 Standard Size

Style	Standard Size
7628、2116	1255mm×137m（150yards）
1080	1255mm×274m（300yards）

热压程式 Hot Pressing Cycle



❖建议

◇材料温度 80～120℃温度范围内，升温速率 1～2.5℃/min（最佳为 1.5～2.0℃/min）。

◇ 料温 190℃以上，保温 60～70min，确保环氧树脂完全固化。

◇最高压力 450±50psi。

❖Suggestions

◇Temperature of material range 80 -~120℃, heating rate suggestions 1~2.5 ℃ /min (ideally 1.5~2.0℃/min).

◇Temperature above 190℃, must be held for 60~70 minutes to ensure epoxy resin to fully cure.

◇The high pressure should be kept 450±50psi.

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储存条件 Storage Condition

- 在 20℃, 50%RH 环境中, 储存期为 3 个月。
- 在低于 5℃环境中, 储存期为 6 个月。
- 使用前必须于室温下静置 4hr 以上。
- 避免紫外光和强光照射。

- 20□, 50% RH for 3 months
- Below 5□ for 6 months
- Prepreg must be normalized in the room temperature at lest 4 hours before use.
- Avoid ultraviolet rays and strong lights.

储存性能 Prepreg Storage Stability