

GW1700-1

High Reliable ,Hi-Tg Lead-free CCL

特点

- ✦ 多层无铅制程兼容
- ✦ Tg ≥170℃ (DSC)
- ✦ 阻燃性能达到UL94 V-0级
- ✦ 低Z轴热膨胀
- ✦ 符合IPC 4101/126要求

应用领域

- ✦ 多层及高多层PCB
- ✦ 无铅高Tg HDI PCB
- ✦ 手机、电脑
- ✦ 便携式电子产品
- ✦ 仪器仪表、汽车电子

FEATURES

- ✦ Suitable for multi-layer lead-free process
- ✦ Tg ≥170℃ (DSC)
- ✦ Flammability UL94 V-0
- ✦ Low CTE (Z-axis)
- ✦ IPC 4101/126

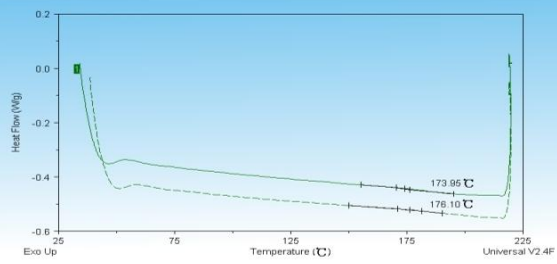
APPLICATIONS

- ✦ Multi-Layer PCB
- ✦ Lead-Free High Tg, HDI PCB
- ✦ Mobile phone、Computer
- ✦ Portable electronics
- ✦ Instrument、Automotive

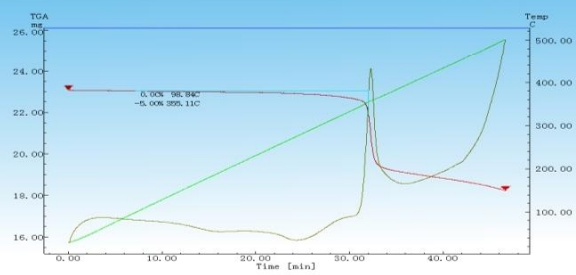
GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	SPEC	Typical Value	
Tg	DSC(E-2/105)	℃	≥170	172	
Td	5%Wt Loss,10℃/min	℃	≥340	355	
CTE Z-axis	Before Tg	TMA	PPM/℃	≤60	50
	After Tg	TMA	PPM/℃	≤300	220
	50~260℃	TMA	%	≤3.0	2.6
T288	TMA	min	≥15	50	
T300	TMA	min	≥2	17	
Surface Resistivity	After moisture resistance	MΩ	≥10 ⁴	6.7 × 10 ⁹	
Volume Resistivity	After moisture resistance	MΩ-cm	≥10 ⁴	3.93 × 10 ¹⁰	
Dielectric Breakdown	D-48/50+D-0.5/23	kV	≥40	≥45	
Thermal Stress	288℃	s	> 10 no delamination	> 600 no delamination	
Dielectric Constant (1GHz)	C-24/23/50	-	≤5.2	4.7	
Dissipation Factor (1GHz)	C-24/23/50	-	≤0.035	0.016	
Flexural Strength	LW	A	N/mm ²	≥415	603
	CW	A	N/mm ²	≥345	480
Flammability	UL-94	-	V-0	Pass	
Peel Strength	1OZ	N/mm	≥1.05	1.6	
Moisture Absorption	D-24/23	%	≤0.5	0.09	
CTI	IEC60112	-	PLC3	PLC3	

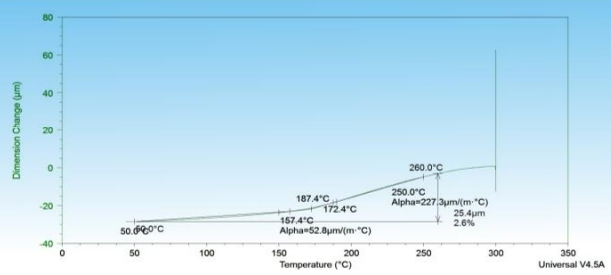
Tg (DSC)



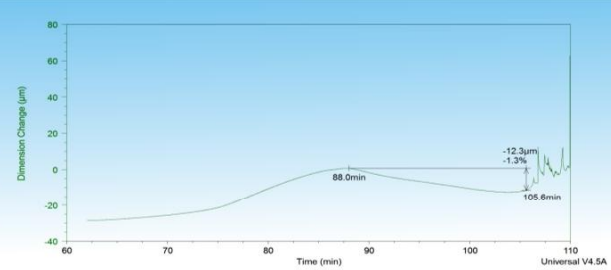
Td (TGA)



CTE (Z-axis)



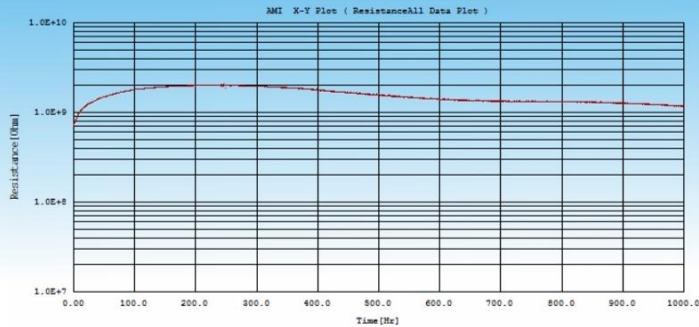
TMA-T300



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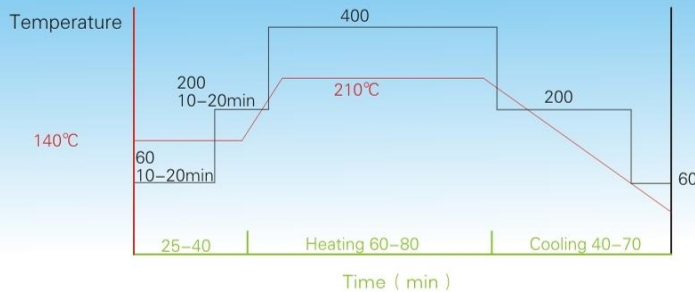
High Reliable ,Hi-Tg Lead-free CCL

Excellent CAF resistance



Test Condition: 85°C/85%RH, DC 100V
Sample Construction: 1.2H/H pitch 0.65mm
T/H diameter 0.30mm

Hot Pressing Cycle



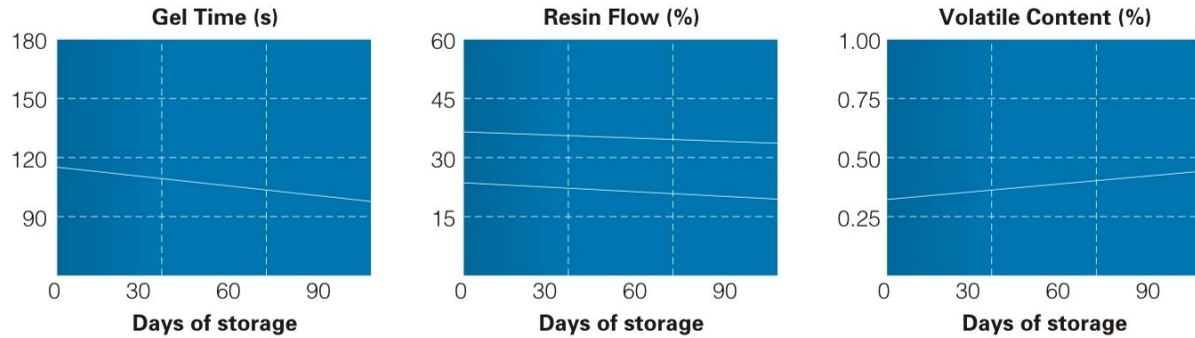
Suggestions

- ✦ Temperature of material range 80~120°C , heating rate suggestions 1~2.5°C /min (ideally 1.5~2.0°C/min)
- ✦ Temperature of material above 190°C , must be held for 70~80 minutes to ensure epoxy resin to fully cure

Storage Condition

- ✦ < 23°C, < 50% RH for 3 months
- ✦ Avoid ultraviolet rays and strong lights

Prepreg Storage Stability



Performance List for prepreg

PP style	Resin content (%)	Resin flow (%)	Gel time (s) ± 20	Volatile (%)
7628	41 ± 3	20 ± 5	110	0.5 ↓
7628	48 ± 3	28 ± 5		
1506	44 ± 3	22 ± 5		
1506	48 ± 3	26 ± 5		
1506	57 ± 3	34 ± 5		
2116	50 ± 3	23 ± 5		
2116	61 ± 3	35 ± 5		
2313	54 ± 3	25 ± 5		
2313	62 ± 3	35 ± 5		
1080	61 ± 3	30 ± 5		
1080	70 ± 3	44 ± 5		
106	76 ± 3	44 ± 5		
1037	76 ± 3	44 ± 5		
1027	76 ± 3	44 ± 5		

We can provide PP with different style and resin content to satisfy the consumers.

Standard Size

Style	Length	Width
1080/106/1037/1027	300m/roll	1260-0/+2mm
2313/2116	200m/roll	
1506	150m/roll	
7628	150m/roll	
	125m/roll	