



Autolad3

(UL ANSI: FR-4.0) High Performance, Automotive-use Materials

FEATURES

- Anti-CAF capability
- Lead-free compatible
- Excellent thermal reliability
- Excellent through-hole reliability
- Excellent mechanical process ability

APPLICATIONS

Designed for high thermal reliability and anti-CAF automotive electronics.
Also suitable for high-multilayer PCBs.

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
T _g	IPC-TM-650 2.4.24.4	DMA	°C	185
	IPC-TM-650 2.4.25D	DSC		180
T _d	IPC-TM-650 2.4.24.6	TGA (5% W.L)	°C	355
T288	IPC-TM-650 2.4.24.1	TMA	min	40
T260	IPC-TM-650 2.4.24.1	TMA	min	60
Thermal Stress	IPC-TM-650 2.4.13.1	288°C, solder dip	s	>100
CTE (X/Y-axis)	IPC-TM-650 2.4.24.5	Before T _g	ppm/°C	10~14
CTE (Z-axis)	IPC-TM-650 2.4.24	Before T _g	ppm/°C	40
	IPC-TM-650 2.4.24	After T _g	ppm/°C	190
	IPC-TM-650 2.4.24	50-260°C	%	2.2
Permittivity*	IPC-TM-650 2.5.5.9	C-24/23/50, 1GHz	-	4.4
Loss Tangent*	IPC-TM-650 2.5.5.9	C-24/23/50, 1GHz	-	0.012
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ.cm	8.12×10 ⁸
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	2.65×10 ⁷
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	135
Dielectric Breakdown	IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	>45
Peel Strength (1oz)	IPC-TM-650 2.4.8	288°C/10s	N/mm [lb/in]	1.4 [8.00]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	MPa	560/440
Water Absorption	IPC-TM-650 2.6.2.1	E-1/105+D-24/23	%	0.07
Flammability	UL94	C-48/23/50	Rating	V-0
CTI	IEC60112	A	Rating	PLC 3

Remarks:

1. Specification sheet: IPC-4101/126, is for your reference only.
2. All the typical value is based on the 1.6mm (8X7628) specimen, "*" is based on the 1.0mm(8X2116) specimen.
3. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.



Autolad3B PREPREG

(UL ANSI: FR-4.0) Bonding Prepreg for Autolad3

PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	Standard size (Roll type)
106	73	0.050	1.260m×150m
	77	0.060	
1080/1078	64	0.072	1.260m×300m
	69	0.086	
1080	72	0.097	
1086	63	0.076	
3313	56	0.096	
	58	0.102	
2116	54	0.117	1.260m×250m
	57	0.127	
	60	0.139	
1506	46	0.150	1.260m×150m
	48	0.160	
7628	45	0.190	
	47	0.200	
	50	0.215	
	52	0.226	

Other type, resin content and size could be available upon request.

HOT PRESSING CYCLE

- The heat-up rate depends on the inner copper or the structure of multilayer PCB.
- Curing time: >60min (185~195°C).
- If you need any more detail information, please turn to Shengyi Technology Co., Ltd.

STORAGE CONDITION

- 3 months when stored at < 23°C and <50% RH.
- 6 months when stored at <5°C. Normalize in room temperature for at least 4h before using.
- Beware of moisture, always keep wrapped in damp-proof material. Keeping in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.
- Avoid UV-rays and strong light.

PURCHASING INFORMATION

Thickness	Copper foil	Standard size
0.05 mm to 3.2mm	12um to 105 um	1,020mm × 1,220mm(40"×48") 915mm × 1,220mm(36"×48")
		1,070mm × 1,220mm(42"×48")

Remarks: Other sheet size and thickness could be available upon request.