



# Autolad2G

(FR-15.1) Halogen-free, High-Tg, High-CTI, Automotive-use Materials

## FEATURES

High voltage anti-CAF  
 Extreme thermal cycling resistance  
 MOT 150 ( )  
 Halogen, antimony and red phosphorous free

## APPLICATIONS

High power & high voltage applications  
 PEV & HEV automotive electrification  
 On board charger (OBC), etc.

## GENERAL PROPERTIES

Property	Test Items		Test Method	Test Condition	Unit	Typical Value
Thermal	Tg		2.4.24.4	DMA	°C	190
			2.4.25	DSC		175
	Td		2.4.24.6	5% wt. loss	°C	402
	T288		2.4.24.1	TMA	min	60
	T300		2.4.24.1	TMA	min	60
	Thermal Stress		2.4.13.1	288°C, solder bath	-	PASS
	Z-axis		2.4.24c	Before Tg	ppm/°C	35
		2.4.24c	After Tg	ppm/°C	190	
		2.4.24c	50-260°C	%	2.2	
Electrical	Dk*	1GHz	2.5.5.9	C-24/23/50	-	4.3
	RC56%					
	Df*	1GHz	2.5.5.9	C-24/23/50	-	0.015
	RC56%					
	Volume Resistivity		2.5.17.1	After Moisture Resistance	-cm	3.86×10 <sup>8</sup>
	Surface Resistivity		2.5.17.1	After Moisture Resistance		3.27×10 <sup>7</sup>
	Arc Resistance		2.5.1	D-48/50+D-0.5/23	s	130
Dielectric Breakdown		2.5.6	D-48/50+D-0.5/23	kV	45+	
Electric Strength		2.5.6	D-48/50+D-0.5/23	kV/mm	40+	
CTI		IEC 60112	As Received	Rating	PLC 0	
Physical	Peel Strength (10z)		2.4.8	288°C/10s	N/mm [lb/in]	1.3 [7.43]
	Flexural Strength	Length	2.4.4	As Received	MPa	520
		Width	2.4.4	As Received	MPa	400
	Water Absorption		2.6.2.1	E-1/105+D-24/23	%	0.09
Flammability		UL94	C-48/23/50, E-24/125	Rating	V-0	

Explanation: C=Humidity conditioning, D=Immersion conditioning in distilled water, E=Temperature conditioning.  
 The first digit following the letter indicates the duration of preconditioning in hours, the second digit the preconditioning temperature in °C and the third digit the relative humidity.

### Remarks:

1. Applicable IPC slash sheet: IPC-4101/130. Unless otherwise specified, all test methods follow IPC-TM-650.
2. All typical value is based on the 1.6mm (8\*7628) specimen, \* is based on the 1.0mm(9X2116) specimen but not guarantee data.
3. All typical values listed above are for your reference only and not intended for specification.
4. Please refer to lineup document for more specification and parameters, or contact Shengyi Technology Co., Ltd. for detailed information.

