

Arlon 45N Multifunctional Epoxy Laminate and Prepreg

Category : Polymer , Thermoset , Epoxy

Material Notes:

Arlon 45N is a tough, high Tg (175°C by DSC) multifunctional epoxy laminate and prepreg system designed for use in a variety of higher layer count MLBs. Processable using conventional FR-4 conditions. 45N is supplied to meet the requirements of IPC-4101/24High Tg by DSC (175°C)Resists barrel cracking and inner layer copper cracking during fabricationResistant to Measling and Solder shock DefectsSuitable for most lead-free applicationsRoHS/WEEE compliantTypical Applications:Automotive Under-hood applicationsBackplanes and Mother BoardsBall Grid Array PackagingHigh layer count MLBsThis data represents typical values for the production material and should not be used as material specifications.Information provided by ARLON Silicone Technologies Division.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Arlon-45N-Multifunctional-Epoxy-Laminate-and-Prepreg.php

Physical Properties	Metric	English	Comments
Density	1.85 g/cc	0.0668 lb/in ³	ASTM D792 Method A
Water Absorption	0.10 %	0.10 %	IPC TM-650 2.6.2.1

Mechanical Properties	Metric	English	Comments
Modulus of Elasticity	19.3 GPa	2800 ksi	IPC TM-650 2.4.18.3
Poissons Ratio	0.20	0.20	ASTM D3039
Peel Strength	1.40 kN/m	8.00 pli	To Copper (1 oz./35 micron); After Process Solutions; IPC TM-650 2.4.8
	1.40 kN/m	8.00 pli	To Copper (1 oz./35 micron); After Thermal Stress; IPC TM-650 2.4.8
	1.40 kN/m	8.00 pli	To Copper (1 oz./35 micron); At Elevated Temperatures; IPC TM-650 2.4.8.2

Thermal Properties	Metric	English	Comments
CTE, linear	14.0 - 16.0 μm/m-°C	7.78 - 8.89 μin/in-°F	IPC TM-650 2.4.41
CTE, linear, Transverse to Flow	55.0 μm/m-°C	30.6 μin/in-°F	z, below Tg; IPC TM-650 2.4.24
	200 μm/m-°C	111 μin/in-°F	z, above Tg; IPC TM-650 2.4.24
Thermal Conductivity	0.250 W/m-K	1.74 BTU-in/hr-ft ² -°F	ASTM E1461
Glass Transition Temp, Tg	175 °C	347 °F	DSC; IPC TM-650 2.4.25
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.60e+13 ohm-cm	2.60e+13 ohm-cm	C96/35/90; IPC TM-650 2.5.17.1
	3.30e+13 ohm-cm	3.30e+13 ohm-cm	E24/125; IPC TM-650 2.5.17.1
Surface Resistance	4.00e+10 ohm	4.00e+10 ohm	C96/35/90; IPC TM-650 2.5.17.1
	2.90e+13 ohm	2.90e+13 ohm	E24/125; IPC TM-650 2.5.17.1
Dielectric Constant	4.2 - 4.6	4.2 - 4.6	may vary with resin %; IPC TM-650 2.5.5.3
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	59.1 kV/mm	1500 kV/in	IPC TM-650 2.5.6.2
Dissipation Factor	0.025	0.025	IPC TM-650 2.5.5.3
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	65 sec	65 sec	IPC TM-650 2.5.1

Descriptive Properties	Value	Comments
Z-Axis Expansion (%)	2.4	IPC TM-650 2.4.24 (50-260°C)

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China