Arlon 33N Polyimide Laminate and Prepreg

Category : Polymer , Thermoset , Polyimide, TS

Material Notes:

High reliability and high temperature material33N is a flame retardant polyimide laminate and prepreg system where the excellent high performance properties of polyimide need to be combined with flame retardance. High Tg results in low overall processing and minimizes risk of latent PTH defects in-service.Low Z-expansion minimizes the risk of PTH defects caused during solder reflow and device attachmentElectrical and mechanical properties meeting the requirements of IPC-4101/40 and /41Toughened. Non-MDA chemistry resists drill crackingCompatible with lead-free processingRoHS/WEEE compliantTypical Applications:PCBs that are subjected to high temperatures during processing, such as lead-free solderingApplications with significant lifetimes at high temperatures, such as aircraft engine instrumentation, down hole drilling, under-hood automotive controls, burn-in boards, or industrial sensors.This 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-33N-Polyimide-Laminate-and-Prepreg.php

Physical Properties	Metric	English	Comments
Density	1.60 g/cc	0.0578 lb/in³	ASTM D792 Method A
Water Absorption	0.21 %	0.21 %	IPC TM-650 2.6.2.1

Mechanical Properties	Metric	English	Comments
Modulus of Elasticity	22.1 GPa	3200 ksi	IPC TM-650 2.4.18.3
Poissons Ratio	0.15	0.15	ASTM D3039
Peel Strength	1.26 kN/m	7.20 pli	To Copper (1 oz./35 micron); After Thermal Stress; IPC TM-650 2.4.8
	1.26 kN/m	7.20 pli	To Copper (1 oz./35 micron); At Elevated Temperatures; IPC TM-650 2.4.8.2
	1.31 kN/m	7.50 pli	To Copper (1 oz./35 micron); After Process Solutions; IPC TM-650 2.4.8

Thermal Properties	Metric	English	Comments
CTE, linear	16.0 - 17.0 µm/m-°C	8.89 - 9.44 µin/in-°F	IPC TM-650 2.4.41
CTE, linear, Transverse to Flow	55.0 µm/m-°C @Temperature <=250 °C	30.6 µin/in-°F @Temperature <=482 °F	z (< Tg); IPC TM-650 2.4.24
	164 µm/m-°C @Temperature >=250 °C	91.1 µin/in-°F @Temperature >=482 °F	z (> Tg); IPC TM-650 2.4.24

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft²-°F	ASTM E1461
Glass Transition Temp, Tg	250 °C	482 °F	TMA; IPC TM-650 2.4.24
Decomposition Temperature	353 °C	667 °F	Onset; IPC TM-650 2.4.24.6
	389 °C	732 °F	5 percent; IPC TM-650 2.4.24.6
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	7.20e+13 ohm-cm	7.20e+13 ohm-cm	C96/35/90; IPC TM-650 2.5.17.1
	4.50e+14 ohm-cm	4.50e+14 ohm-cm	E24/125; IPC TM-650 2.5.17.1
Surface Resistance	4.10e+14 ohm	4.10e+14 ohm	C96/35/90; IPC TM-650 2.5.17.1
	1.60e+15 ohm	1.60e+15 ohm	E24/125; IPC TM-650 2.5.17.1
Dielectric Constant	4.0 @Frequency 1.00e+6 Hz	4.0 @Frequency 1.00e+6 Hz	IPC TM-650 2.5.5.3
Dielectric Strength	50.8 kV/mm	1290 kV/in	IPC TM-650 2.5.6.2
Dissipation Factor	0.010 @Frequency 1.00e+6 Hz	0.010 @Frequency 1.00e+6 Hz	IPC TM-650 2.5.5.3
Arc Resistance	170 sec	170 sec	IPC TM-650 2.5.1

Descriptive Properties	Value	Comments
IPC Delamination - T260 (minutes)	> 60	IPC TM-650 2.4.24.1
IPC Delamination - T288 (minutes)	23	IPC TM-650 2.4.24.1
IPC Delamination - T300 (minutes)	8	IPC TM-650 2.4.24.1
Z-Axis Expansion (%)	1.2	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