Arlon® 55NT

Epoxy; Epoxide

Arlon-MED

Message:

55NT is an epoxy laminate and prepreg system, reinforced with a non-woven aramid substrate. This system combines compatibility with lead-free processing, using a hightemperature epoxy resin, with the low in-plane (x,y) expansion and outstanding dimensional stability of non-woven aramid reinforcement.

General Information			
Filler / Reinforcement	Aramid Fiber		
Features	Good Dimensional Stability Good Electrical Properties Low (to None) Lead Content Low Moisture Absorption		
Uses	Aircraft Applications Electrical/Electronic Applications Laminates Military Applications		
RoHS Compliance	RoHS Compliant		
Forms	Sheet		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.38	g/cm³	ASTM D792A
Water Absorption (24 hr)	0.30	%	Internal Method
Decomposition Temperature			Internal Method
5%	368	°C	
Initial	351	°C	
Peel Strength			Internal Method
-- [1]	630.5	N/m	
-- [2]	630.5	N/m	
-- [3]	630.5	N/m	
Expansion Rate (50 to 260°C) [4]	3.5	%	Internal Method
T260	> 1.0	hr	Internal Method
T288	> 1.0	hr	Internal Method
T300	28.0	min	Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	13800	MPa	Internal Method
Tensile Strength	248	MPa	Internal Method
Flexural Strength	262	MPa	Internal Method
Thermal	**Nominal Value**	**Unit**	**Test Method**

Glass Transition Temperature	170	°C	Internal Method
CLTE - Flow			
-- [5]	6.0E-6 to 9.0E-6	cm/cm/°C	Internal Method
< 160°C [6]	9.9E-5	cm/cm/°C	Internal Method
> 160°C [7]	2.6E-4	cm/cm/°C	Internal Method
Thermal Conductivity (100°C)	0.20	W/m/K	ASTM E1461
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity			Internal Method
-- [8]	1.8E+14	ohms	
-- [9]	1.6E+15	ohms	
Volume Resistivity			Internal Method
-- [10]	2.3E+13	ohms·cm	
-- [11]	6.6E+13	ohms·cm	
Dielectric Strength	49	kV/mm	Internal Method
Dielectric Constant (1 MHz)	3.80		Internal Method
Dissipation Factor (1 MHz)	0.015		Internal Method
Arc Resistance	165	sec	Internal Method
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-0		UL 94
NOTE			
1.	After Process Solutions		
2.	At Elevated Temperatures		
3.	After Thermal Stress		
4.	Z-axis		
5.	Y-axis		
6.	Z-axis		
7.	Z-axis		
8.	C96/35/90		
9.	E24/125		
10.	C96/35/90		
11.	E24/125		

Recommended distributors for this material

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