Arlon® 44N

Epoxy; Epoxide

Arlon-MED

Message:

Arlon 44N is a high resin content multifunctional (175°C) epoxy prepreg system with a proprietary micordisperse ceramic filler system. 44N is engineered for the filling of clearance holes in thin Metal cores such as 0.006" Copperinvar- Copper or via holes in sequentially laminated MLB designs. Based on Arlon's 45N, the 44N system is compatible with conventional epoxy lamination and fabrication.

General Information			
Filler / Reinforcement	Ceramic Fiber Glass Fiber		
Features	Low (to None) Lead Content Low Shrinkage Thermally Conductive		
Uses	Automotive Under the Hood Computer Components Electrical/Electronic Applications Laminates Packaging		
RoHS Compliance	RoHS Compliant		
Forms	Liquid		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.85	g/cm³	ASTM D792A
Water Absorption (24 hr)	0.10	%	Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	19300	MPa	Internal Method
Poisson's Ratio [1]	0.15		ASTM D3039
Films	**Nominal Value**	**Unit**	**Test Method**
Peel Strength			Internal Method
-- [2]	1.4	kN/m	
-- [3]	1.4	kN/m	
-- [4]	1.4	kN/m	
Expansion Rate (50 to 260°C) [5]	2.4	%	Internal Method
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	175	°C	Internal Method
CLTE - Flow			
-- [6]	1.4E-5 to 1.6E-5	cm/cm/°C	Internal Method
< 175°C [7]	5.5E-5	cm/cm/°C	Internal Method

> 175°C [8]	2.0E-4	cm/cm/°C	Internal Method
Thermal Conductivity (100°C)	0.30	W/m/K	ASTM E1461
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity			Internal Method
-- [9]	2.9E+13	ohms	
-- [10]	4.0E+10	ohms	
Volume Resistivity			Internal Method
-- [11]	2.6E+13	ohms·cm	
-- [12]	3.3E+13	ohms·cm	
Dielectric Strength	59	kV/mm	Internal Method
Dielectric Constant [13] (1 MHz)	4.40		Internal Method
Dissipation Factor (1 MHz)	0.025		Internal Method
Arc Resistance	65.0	sec	Internal Method
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-0		UL 94

NOTE	
1.	x and y direction
2.	After Thermal Stress
3.	After Process Solutions
4.	At Elevated Temperatures
5.	Z-axis
6.	X-axis
7.	Z-axis
8.	Z-axis
9.	E24/125
10.	C96/35/90
11.	E24/125
12.	C96/35/90
13.	Range: 402 to 406

Recommended distributors for this material

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