

# Arlon® 49N

Epoxy; Epoxide

Arlon-MED

## Message:

49N is a low-flow epoxy prepreg engineered for bonding multilayer epoxy rigid-flex or attaching heatsinks to multilayer epoxy PCBs. With a high Tg, the prepreg can be used in high-performance or hightemperature applications compared to a standard difunctional epoxy low-flow.

General Information			
Features	Bondability		
	Fast Cure		
	Good Electrical Properties		
	Good Flexibility		
	Low Flow		
Uses	Bonding		
	Electrical/Electronic Applications		
RoHS Compliance	RoHS Compliant		
Forms	Liquid		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.75	g/cm <sup>3</sup>	ASTM D792A
Water Absorption (24 hr)	0.10	%	Internal Method
Decomposition Temperature			Internal Method
5%	302	°C	
Initial	291	°C	
Peel Strength <sup>1</sup>	1.6	kN/m	Internal Method
Expansion Rate (50 to 260°C) <sup>2</sup>	3.1	%	Internal Method
T260	10.0	min	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	17900	MPa	Internal Method
Flexural Strength	234	MPa	Internal Method
Poisson's Ratio <sup>3</sup>	0.17		ASTM D3039
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	170	°C	Internal Method
CLTE - Flow			
-- <sup>4</sup>	1.4E-5 to 1.6E-5	cm/cm/°C	Internal Method
< 170°C <sup>5</sup>	8.7E-5	cm/cm/°C	Internal Method
> 170°C <sup>6</sup>	2.5E-4	cm/cm/°C	Internal Method
Thermal Conductivity (100°C)	0.25	W/m/K	ASTM E1461
Electrical	Nominal Value	Unit	Test Method

Surface Resistivity			Internal Method
-- 7	4.0E+12	ohms	
-- 8	2.9E+13	ohms	
Volume Resistivity			Internal Method
-- 9	3.3E+12	ohms·cm	
-- 10	2.6E+13	ohms·cm	
Dielectric Strength	39	kV/mm	Internal Method
Dielectric Constant (1 MHz)	4.40		Internal Method
Dissipation Factor (1 MHz)	0.025		Internal Method
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94
NOTE			
1.	After Thermal Stress		
2.	Z-axis		
3.	x and y direction		
4.	Y-axis		
5.	Z-axis		
6.	Z-axis		
7.	E24/125		
8.	C96/35/90		
9.	E24/125		
10.	C96/35/90		

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