

# Epoxies, Ect. 20-2345

Polyurethane  
Epoxies, Etc.

Message:

This two component urethane series are low durometer (30-90 Shore A), potting, casting, and encapsulating compounds. They are unfilled materials engineered to provide excellent hydrolytic stability and low moisture permeability. They have outstanding thermal cycling properties, low glass transition temperatures and low embedment stress to sensitive electronic components.

These unique urethane formulations maintain their integrity over a wide operating temperature range. The low glass transition temperature of approximately -70°C makes these urethanes ideal for low temperature potting applications. These systems exhibit very little hardness increase when cooled to -72°C.

- Features:
- Maintains flexibility at low temperatures
  - Thermal cycling stability
  - Excellent electrical insulation
  - Chemical resistance
  - Low stress on sensitive components
  - Hydrolytic stability

General Information		
Features	Electrically Insulating	
	Good Chemical Resistance	
	Good Flexibility	
	Hydrolytically Stable	
	Low to No Water Absorption	
Uses	Electrical/Electronic Applications	
Appearance	Black	
Processing Method	Casting	
	Encapsulating	
	Potting	
Thermal	Nominal Value	Unit
Glass Transition Temperature	-70.0	°C
CLTE - Flow	2.3E-4	cm/cm/°C
Electrical	Nominal Value	Unit
Surface Resistivity	1.0E+16	ohms
Thermoset	Nominal Value	Unit
Thermoset Mix Viscosity (25°C)	5000	cP
Additional Information	Nominal Value	Unit
Operating Temperature	-40.0 to 125	°C
Uncured Properties	Nominal Value	Unit
Color	Black	
Mix Ratio by Weight (PBW)		
Part A	100	

Part B	15	
Density		
25°C <sup>1</sup>	0.898	g/cm <sup>3</sup>
25°C <sup>2</sup>	1.17	g/cm <sup>3</sup>
Curing Time		
85°C	0.66	hr
65°C	1.5	hr
45°C	2.5	hr
25°C	24 to 48	hr
Pot Life <sup>3</sup> (25°C)	150	min
Cured Properties	Nominal Value	Unit
Shore Hardness (Shore A)	45	
Tensile Strength	1.04	MPa
Tensile Elongation at Break	120	%
Relative Permittivity (1 kHz, 25°C)	4.50	
Volume Resistivity	6.0E+16	ohms·cm
NOTE		
1.	Part A	
2.	Part B	
3.	100 gram mass	

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