Epoxies, Ect. 20-2121

Polyurethane

Epoxies, Etc.

Message:

20-2121 is formulated for electronic potting, encapsulating and casting applications. The 20-2121 is a two-component, low viscosity, room temperature curing system. This is an easy to use product that does not contain TDI, MbOCA or Mercury. 20-2121 will cushion and protect sensitive electronic components. It will impart very little stress on components during cure or thermal cycling.

The 20-2121 Polyurethane meets the Food and Drug Administration (FDA) regulations permitting use in food contact applications. The raw materials used in this product comply with the FDA regulations of Title 21 Code of Federal Regulations under Sections 175.105 and 175.300.

The base Natural Oil Polyol (NOP) used in 20-2121 is obtained directly from a plant source without chemical modifications. Due to the raw materials selected, this product is low in toxicity and considered a GREEN potting compound. Using renewable resources such as NOPs will reduce the demand on non-renewable fossil fuels and reduce the overall production of carbon dioxide.

Features: Low Toxicity Green Low Viscosity Low Durometer Moisture Resistant Low Shrinkage & Exotherm FDA compliant Benefits: Reduce employee exposure to dangerous chemicals Reduce demand on non-renewable fossil fuels Quick self leveling around components Low stress on components & vibration resistant Can be used in wet environments Will not damage components during cure May be used in food contact applications

General Information	
Features	Food Contact Acceptable
	Low Exotherm
	Low Shrinkage
	Low to No Water Absorption
	Low Toxicity
	Low Viscosity
	Renewable Resource Content
Uses	Electrical Parts
	Electrical/Electronic Applications
	Food Service Applications
	Non-specific Food Applications
Agency Ratings	FDA 21 CFR 175.105
	FDA 21 CFR 175.300
Appearance	Clear Amber
Processing Method	Casting

Encapsulating

Potting

Physical	Nominal Value	Unit
Molding Shrinkage - Flow	0.014	%
Thermal	Nominal Value	Unit
CLTE - Flow	2.1E-4	cm/cm/°C
Thermal Conductivity	0.30	W/m/K
Electrical	Nominal Value	Unit
Surface Resistivity	> 1.0E+15	ohms
Thermoset	Nominal Value	Unit
Thermoset Mix Viscosity (25°C)	3200	cP
Additional Information	Nominal Value	Unit
Operating Temperature	-30.0 to 125	°C
Uncured Properties	Nominal Value	Unit
	Amber	

Color	Clear/Transparent		
Mix Ratio by Weight (PBW)			
Part A	100		
Part B	120		
Density			
25°C ¹	0.958	g/cm³	
25°C ²	1.14	g/cm³	
Viscosity			
25°C ³	0.80	Pa·s	
25°C ⁴	20	Pa·s	
Curing Time			
85°C	0.66	hr	
65°C	1.5	hr	
45°C	2.5	hr	
25°C	24	hr	
Gel Time			
60°C	20	min	
25°C	90	min	
Cured Properties	Nominal Value	Unit	
Shore Hardness (Shore A)	65		
Tensile Strength	13.8	MPa	
Tensile Elongation at Break	160	%	
Tear Strength	20.8	kN/m	
Electric Strength	26	kV/mm	

Relative Permittivity (1 kHz)	3.40	
Volume Resistivity	7.2E+14	ohms·cm
Dissipation Factor (1 kHz)	0.017	
NOTE		
1.	Part A	
2.	Part B	
3.	Part A	
4.	Part B	

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