



20-2121 ELASTOMERIC POTTING & ENCAPSULATING COMPOUND

DESCRIPTION:

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

TYPICAL PROPERTIES:

Color	Clear/Amber
Viscosity, 25°C, cps	
Polyol	800
Isocyanate	20,000
Mixed	3,200
Specific gravity @ 25°C	
Polyol	.96
Isocyanate	1.14
Mix Ratio (Polyol:Iso)	
By Volume	100:94
By Weight	116:100
Gel Time, Minutes	90 @ 25°C, 20 @ 60°C
Hardness, Shore A	65
Elongation, %	155
Tensile strength, psi	2,000
Tear strength, PLI	119



Coefficient of thermal expansion, °C	2.10 x1 0 ⁻⁴
Linear shrinkage, in./in.	.014
Thermal conductivity, W/m- °K	.3
Operating temperature range, °C	-30 to +125
Dielectric strength, V/mil	650
Volume resistivity, ohm-cm	7.2 x 10 ¹⁴
Surface resistivity, 25°C, ohm	>1.0 x 10 ¹⁵
Dielectric constant @1 KHz	3.4
Dissipation Factor @ 1 KHz	.017

Note: When cured at room temperature full hardness and final properties are achieved in 7-10 days.

INSTRUCTIONS FOR USE:

1. By weight, thoroughly mix 100 parts Isocyanate to 116 parts Polyol according to mix ratio provided in the above table. Two components should be carefully weighed in metal, plastic or glass containers. Avoid using paper cups and wooden stirrers.
2. Mixed material can be degassed at 29 in Hg to ensure bubble free castings. Containers should be large enough to allow frothing.
3. Cure according to one of the following cure schedules:
 - 25°C 24 Hours
 - 45°C 2.5 Hours
 - 65°C 1.5 Hours
 - 85°C 40 Minutes

FDA COMPLIANCE:

Epoxies, Etc. does not warranty that these products would be suitable under applicable FDA regulations for any use.

The responsibility for determining the overall compliance with applicable FDA food additive/contact regulations is with the company manufacturing the final finished product and/or the person placing that product in food contact.

STORAGE & HANDLING & SAFETY:

Store both components at 75-85°F in original containers. If the containers are opened and the contents partially used, the material left in the container should be blanketed with dry nitrogen before sealing. Carefully read Safety Data Sheets before using.

AVAILABILITY:

These products are available in quarts, gallons, five gallon pails and 55 gallon drums.

IMPORTANT:

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