



# 20-2150 POLYURETHANE POTTING & ENCAPSULATING RESIN

## DESCRIPTION:

This polyurethane system is engineered for electronic potting, encapsulating, and casting applications. It is low in viscosity and low in toxicity.

## GREEN:

The base Natural Oil Polyol (NOP) used in this system is obtained directly from a plant source without chemical modifications. Using renewable resources, such as NOP's, will reduce the demand on non-renewable fossil fuels and reduce the overall production of carbon dioxide.

## FEATURES:

- Green
- Low Viscosity
- Low Durometer
- Moisture Resistant
- Convenient Mix Ratio
- Low Shrinkage & Exotherm

## BENEFITS:

- Reduce demand on non-renewable fossil fuels
- Quick self leveling around components
- Low stress on components & vibration resistant
- Can be used in wet environments
- Easy to process by hand or with meter mix
- Less stress to components during cure

## TYPICAL PROPERTIES:

	<u>20-2150</u>
Color	Black
Hardness, Shore A	50
Viscosity, 25°C, cps	
Polyol Resin	1,500
Isocyanate	5,500
Mixed	2,500
Specific gravity @ 25°C Resin	
Polyol Resin	1.03
Isocyanate	1.13
Mix Ratio (Polyol:Iso)	
By Weight	2:1
Gel Time, 25°C, Minutes	20
Elongation	150
Tensile strength, psi	375
Tear strength, psi	40
Coefficient of thermal expansion, °C	$2.00 \times 10^{-4}$
Thermal conductivity, W/m- °K	.3
Operating temperature range, °C	-30 to +125
Dielectric strength, V/mil	625
Volume resistivity, ohm-cm	$7.2 \times 10^{14}$
Dielectric constant @1 KHz	3.6
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 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

**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:**

This product is available in quarts, gallons, five gallon pails and 55 gallon drums.

**IMPORTANT:**

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