

20-2174

ELASTOMERIC POTTING & ENCAPSULATING COMPOUND

DESCRIPTION:

20-2174 is formulated for electronic potting, encapsulating and casting applications. The 20-2174 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. 20-2174 will cushion and protect sensitive electronic components. It will impart very little stress on components during cure or thermal cycling. A key feature of this product is the quick demolding time of 1 hour for encapsulating or casting.

The base Natural Oil Polyol (NOP) used in 20-2174 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:

- Green
- Low Viscosity
- Low Durometer
- Moisture Resistant
- Low Shrinkage & Exotherm
- 1 Hour Demolding

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
- Will not damage components during cure
- Need fewer molds for production

TYPICAL PROPERTIES:

Color	Black/Amber
Viscosity, 25°C, cps	
Polyol	850
Isocyanate	185
Mixed	720
Specific gravity @ 25°C	
Polyol	.96
Isocyanate	1.2
Mix Ratio (Polyol:Iso)	
By Volume	100:38
By Weight	100:45
Gel Time, Minutes	6-10 @ 25°C
Hardness, Shore A	75
Elongation, %	155



TYPICAL PROPERTIES (continued):

Tensile strength, psi	2,000
Tear strength, pli	119
Coefficient of thermal expansion, °C	2.10×10^{-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	7.2×10^{14}
Surface resistivity, 25°C, ohm	$>1.0 \times 10^{15}$
Dielectric constant @1 KHz	3.4
Dissipation factor @ 1 KHz	.017

INSTRUCTIONS FOR USE:

1. By weight, thoroughly mix 45 parts Isocyanate to 100 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 1 Hour
65°C 20 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 (SDS) before using.

AVAILABILITY:

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

IMPORTANT:

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