

# 20-2183

## POLYURETHANE POTTING & ENCAPSULATING RESIN

### DESCRIPTION:

This polyurethane is engineered for electronic potting, encapsulating, and casting applications. It is low in viscosity, low in toxicity and available in the popular TriggerBond® dual barrel cartridge dispensing system. This elastomeric system is suitable for a variety of electronic insulating applications. A key feature of this product is the quick demolding time of 1 Hour for encapsulating or casting. 20-2183 is a faster gelling version of 20-2180.

### 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:

- 1 Hour Demolding
- Green
- Low Viscosity
- Available in TriggerBond®
- Low Durometer
- Moisture Resistant
- Low Shrinkage & Exotherm

### BENEFITS:

- Need fewer molds for production
- Reduce demand on non-renewable fossil fuels
- Quick self leveling around components
- Easy to use packaging
- Low stress on components & vibration resistant
- Can be used in wet environments
- Less stress to components during cure

### TYPICAL PROPERTIES:

	<u>20-2183</u>	<u>20-2180</u>
Viscosity, 25°C, cps		
Polyol Resin	2,200	2,200
Isocyanate	1,500	1,500
Mixed	1,700	1,700
Mix Ratio (Iso:Polyol)		
By Volume	1:2	1:2
By Weight	60:100	60:100
Color	Black	Black
Hardness, Shore A	80	80
Operating temperature range, °C	-55 to +125	-55 to +125
Gel Time, 25°C, Minutes	15	20
Demold Time, 25°C, Hours	1	16-24
Specific gravity, 25°C		
Polyol Resin	0.97	0.97
Isocyanate	1.15	1.15



**TYPICAL PROPERTIES (continued):**

	<u>20-2183</u>	<u>20-2180</u>
Elongation %	220	220
Tensile strength, psi	1700	1700
Tear strength, pli	80	80
Coefficient of thermal expansion, °C	2.00 x10 <sup>-4</sup>	2.10x10 <sup>-4</sup>
Thermal conductivity, W/m-K	0.3	0.3
Dielectric strength, V/mil	650	650
Volume resistivity, ohm-cm	7.2x10 <sup>14</sup>	7.2x10 <sup>14</sup>
Surface resistivity, 25°C, ohm	>1.0x10 <sup>15</sup>	>1.0x10 <sup>15</sup>
Dielectric constant, 1 kHz	3.4	3.4
Dissipation Factor, 1 kHz	0.017	0.017

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

**INSTRUCTIONS FOR USE:**

1. Weighing & mixing is not necessary when using TriggerBond® cartridges. Follow the instructions for dispensing with TriggerBond® cartridges.
2. Cure according to one of the following cure schedules:

<u>20-2183</u>	<u>20-2180</u>
25°C - 1 Hour	25°C - 24 Hours
65°C - 20 Minutes	65°C - 1.5 Hours

**STORAGE & HANDLING & SAFETY:**

Store cartridges at 75-85°F. Avoid exposure to moisture or humidity.

Please read the Safety Data Sheet before using this or any other chemical.

**AVAILABILITY:**

This product is available in the convenient TriggerBond® dual barrel cartridges (50ml, 200ml & 400ml). 20-2183 is also available in quarts and gallon containers.

**IMPORTANT:**

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