EPOXIES
INNOVATIVE BONDING SOLUTIONS ETC.

TECHNICAL BULLETIN

UNFILLED LOW DUROMETER CLEAR URETHANE ELASTOMERS

20-2310 Shore A 30
20-2350 Shore A 35
20-2360 Shore A 90

DESCRIPTION:

This two component urethane series are low durometer (30-90 Shore A), potting, casting, and encapsulating compounds. They are unfilled materials engineered to provide excellent hydrolytic stability and low moisture permeability. They have outstanding thermal cycling properties, low glass transition temperatures and low embedment stress to sensitive electronic components.

These unique urethane formulations maintain their integrity over a wide operating temperature range, -40°C to 125°C. The low glass transition temperature of -72°C makes these urethanes ideal for low temperature potting applications.

FEATURES

- Maintains flexibility at low temperatures
- Thermal cycling stability
- Excellent electrical insulation
- Chemical resistance
- Low stress on sensitive components
- Hydrolytic stability
- Unaffected by moisture at high temperatures
- No shrinkage

TYPICAL SPECIFICATIONS:

	20-2310	20-2350	20-2360
Standard color (Available Clear)	Black	Black	Black
Specific gravity @ 25°C Resin	.91	.90	.90
Specific gravity @ 25°C Catalyst	1.2	1.2	1.2
Mix Ratio, by weight (A:B)	100:10	100:10	100:40
Mix Ratio, by volume (A:B)	100:7.5	100:7.5	100:31
Hardness, Shore A	30	35	90
Mixed viscosity, 25°C, cps	3,000	1,600	1,600
Coefficient of thermal expansion, per °C	$2.28x10^{-4}$	$2.28x10^{-4}$	$2.28x10^{-4}$
Tensile strength, PSI	110	150	400
Elongation, %	60	50	40
Glass transition temperature, °C	-72	-72	-72
Pot life, 100 gram mass, 25°C	1.5 hours	1 hour	40 minutes
Dielectric constant, 25°C, 1Khz	4.5	4.5	4.5
Surface resistivity, 25°C, ohm	$1x10^{16}$	$1x10^{16}$	$1x10^{16}$
Volume resistivity, ohm-cm	$6x10^{16}$	$6x10^{16}$	$6x10^{16}$
Operating temperature range, °C	-40 to 125	-40 to 125	-40 to 125

epoxies.com
21 Starline Way
Cranston, RI 02921 USA
t 401.946.5564
f 401.946.5526

INSTRUCTIONS FOR USE:

By weight, thoroughly mix according to mix ratio provided in above specifications. Two components should be carefully weighed in metal, plastic or glass containers. Avoid using paper cups and wooden stirrers.

Mixed material can be degassed at 1 to 5 mm Hg to ensure bubble free castings. Containers should be large enough to allow frothing.

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 Material Safety Data Sheets before using.

IMPORTANT:

EPOXIES, ETC. MAKES NO EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY, FITNESS OR OTHERWISE WITH RESPECT TO ITS PRODUCTS. The information in this brochure is based on data obtained by our own research and is considered reliable. However, no warranty is expressed or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. The properties given are typical values and are not intended for use in preparing specifications. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular purpose.

10/12

epoxies.com
21 Starline Way
Cranston, RI 02921 USA
t 401.946.5564
f 401.946.5526