

**URS 4780**

**POLYBUTADIENE – POLYURETHANE POTTING SYSTEM**

**80 SHORE A**

**DESCRIPTION**

**URS 4780** is a flexible, polybutadiene-based urethane system designed for potting stress sensitive electrical/electronic components. **URS 4780** provides excellent hydrolytic stability and maintains outstanding flexibility and electrical properties from -40 Deg F to 200 Deg F. Applications include potting balasts, tripods, transformers, etc.

**FEATURES**

- Low Embedment Stress
- Brittle Point Below -70 Deg C
- Excellent Electrical Properties
- Passes NASA Outgassing Test
- Superior Hydrolytic Stability
- No MOCA or TDI
- Hand or Machine Process

**LIQUID**

<b><u>PROPERTIES</u></b>	<b><u>POL 411B</u></b>	<b><u>ISO 160A</u></b>	<b><u>MIXED</u></b>
Appearance	Amber Liquid	Amber Liquid	Amber Liquid
Viscosity (cps)	3,500-5,500 (77 F)	100-500 (77 F)	1,000-2,000 (77 F)
Density (lbs/gal)	7.50-7.70	10.0-10.20	8.35-8.55

**PHYSICAL PROPERTIES**

Hardness, Shore A	80
Tensile Strength, Ultimate, psi	2000
Elongation, %	150
Tear Strength "Die C" lbs/in	235

**Dielectric constant:**

60 Hz	:	3.1
100 Hz	:	3.1
1K Hz	:	3.0
10K Hz	:	3.0
100K Hz	:	2.9

**Dissipation Factor:**

100 Hz	:	.03
1K Hz	:	.03
10K Hz	:	.04
100K Hz	:	.05

**URS 4780 cont:**

Volume Resistivity ohm-cm	:	1.2 X 10
Dielectric Strength Volts/Mil	:	460
Arc Resistance, seconds	:	65
Moisture Absorption (7 days 77 deg F) (% Wt. Gain)	:	0.05

**PROCESSING PARAMETERS**

Process Polyoll 411B at 65 to 90 degrees F.

Melt Isocyanate 160A if frozen at 100 degrees F., otherwise use at 70 to 85 degrees F.

Mold Temperature: 65 to 125 degrees F.

Mix Ratio: 100 parts Polyol 411B to 50 parts Isocyanate 160A by weight.

Degas mixture if possible or Pre-degas in dispensing equipment prior to casting.

Pot Life: (200g mass) (77F) 15 to 20 minutes.

Demold: 1-2 hours or 30-45 minutes with maximum process and mold temperature. Catalyst may also be used to shorten demold time.

Post Cure: 16-24 hours @ 77 degrees F

**STORAGE**

Systems should be stored unopened in air tight containers at 60-90 degrees F. Partially emptied containers should be swept free of atmospheric moisture with dry nitrogen before sealing.

**HANDLING PRECAUTIONS**

For complete and updated health and safety information, read the MATERIAL SAFETY DATA SHEETS. Do not handle or use until the MATERIAL SAFETY DATA SHEET has been read and understood.