

POLYBUTADIENE – POLYURETHANE POTTING SYSTEM

45 SHORE A

DESCRIPTION

URS 4745 is a flexible, polybutadiene-based urethane system designed for potting stress sensitive electrical/electronic components. **URS 4745** 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

<u>PROPERTIES</u>	<u>POL 430B</u>	<u>ISO 160A</u>	<u>MIXED</u>
Appearance	Amber Liquid	Amber Liquid	Amber Liquid
Viscosity (cps)	3,500-5,500 (77 F)	100-500 (77 F)	2,000-3,000 (77 F)
Density (lbs/gal)	7.50-7.70	10.0-10.20	7.90-8.10

PHYSICAL PROPERTIES

Hardness, Shore A		45
Tensile Strength, Ultimate, psi		350
Elongation, %		250
Tear Strength "Die C" lbs/in		110
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 4745 cont:

Volume Resistivity ohm-cm	:	9.3 X 10
Dielectric Strength Volts/Mil	:	350
Arc Resistance, seconds	:	75
Moisture Absorption (7 days 77 deg F) (% Wt. Gain)	:	0.05

PROCESSING PARAMETERS

Process Polyoll 430B 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 430B to 11.80 parts Isocyanate 160A by weight.

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

Pot Life: (200g mass) (77F) 20 to 30 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 SAFETY DATA SHEETS. Do not handle or use until the SAFETY DATA SHEET has been read and understood.