

URS 4180

Revised 11/19/04

HIGH MODULUS, HIGH HDT POLYURETHANE CASTING SYSTEM

80 SHORE D

DESCRIPTION

URS 4180 is a high modulus polyether, based urethane casting system with good rigidity and excellent impact resistance at temperatures up to 250 degrees F. **URS 4180** is recommended for applications where stiffness and impact resistance at higher temperatures are of consideration, such as, wheels, impact guards, guide slots, support plates, edge guards, etc.

FEATURES

Excellent Machining Qualities
High Impact Strength
Excellent Tensile Strength
Outstanding Oil Resistance
High HDT
No MOCA or TDI
Hand or Machine Processing

LIQUID

<u>PROPERTIES</u>	<u>POL 470B</u>	<u>ISO 110A</u>	<u>MIXED</u>
Appearance	Amber Liquid	Amber Liquid	Amber Liquid
Viscosity (cps)	2,800 –3,400 (77 F)	500-1,000 (77 F)	1,600-2,000 (77 F)
Density (lbs/gal)	8.90 – 9.10	10.00 – 10.20	9.50 - 9.70

PHYSICAL PROPERTIES

Hardness, Shore D	82
Hardness, Shore D at 200 deg. F.	77
Modulus, psi, 100%	4225
Tensile Strength, Ultimate, psi	9025
Elongation, %	180
Tear Strength "Die C" lbs/in	105
Compression Set, Method A	11
Impact Resistance ft-lbs/in (with postcure)	13
HDT (Deg F.)	210

URS 4180 Cont:

PROCESSING PARAMETERS

Process Polyol 470B at 100 to 150 degrees F.

Melt Isocyanate 110A if frozen at 100 degrees F., otherwise use at 70-85 degrees F.

Mold Temperature: 110 to 160 degrees F.

Mix ratio: 100 parts Polyol 470B to 140 parts Isocyanate 110A by weight.

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

Pot life: (200g mass) (77 degrees F) 10 to 15 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 @ 140 degrees F.

NOTE: Full Physicals are only obtained with full postcure!

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.