

Product
Bulletin

U103

Polyether-based, MDI-terminated pre-polymer that yields a 53 Shore D urethane when cured with 1,4 Butanediol.

GENERAL DESCRIPTION

U103 is a polyether-based, MDI-terminated prepolymer that yields a 53 Shore D urethane when cured with 1,4 Butanediol.

U103 is characterized by exceptionally low viscosity and outstanding processing characteristics.

Urethanes made from U103 exhibit excellent low temperature properties, high abrasion resistance, outstanding hydrolytic stability, and high tear strength.

SPECIFICATIONS
LIQUID PREPOLYMER PROPERTIES:

<u>Amine Equivalent:</u>	375
<u>% NCO:</u>	10.91-11.50
<u>Viscosity @ 100°C:</u>	1.5 poise
<u>Viscosity @ 70°C:</u>	4.0 poise
<u>Pot Life:</u>	5 min.
<u>Appearance @ 25°C:</u>	viscous liquid

FORMULATION:

<u>U103:</u>	100
<u>1,4 Butanediol (11.2% NCO):</u>	11.4
<u>Curative Mole Ratio:</u>	0.95

PROCESSING CONDITIONS:

<u>U103 Temperature, °C:</u>	60 to 100
<u>1,4 Butanediol Temperature, °C:</u>	24 to 65
<u>Cure Temperature, °C:</u>	110 to 115
<u>De-mold (time from mix):</u>	10-20 min.
<u>Post Cure:</u>	16 hrs @ 110 to 115°C

PHYSICAL CHARACTERISTICS

<u>Hardness, Shore D:</u>	53
<u>100% Modulus, psi:</u>	2,300
<u>Tensile Strength, psi:</u>	7,500
<u>Elongation:</u>	380
<u>Die C Tear:</u>	750
<u>D-470 Tear:</u>	170
<u>Bashore Rebound:</u>	38
<u>Compression Set, B, 22 hr / 158°F:</u>	30

Compressive Modulus, psi –

<u>@ 5%:</u>	575
<u>@ 10%:</u>	1125
<u>@ 15%:</u>	1740
<u>@ 20%:</u>	2240
<u>@ 25%:</u>	2710