

Polyurethane Specialty Products Group

VERSATHANE® D-7

TDI-Polyester Prepolymer

Prepolymer Properties

		Specifications	Typical
NCO (%)		6.4 - 6.8	6.6
Viscosity (cPs)	- 70 °C	≤ 3,000	2,300 - 2,700
	- 100 °C	-	500
Specific Gravity	- 100 °C	-	1.18
Appearance		-	White, Waxy Solid
Residual TDI (%)		< 0.7	< 0.5

Processing Conditions

Stoichiometry (%)	95
Versathane Temperature (°C)	100
MBOCA Temperature (°C)	110 - 115
Mold Temperature (°C)	100
Pot Life (Min.) – 100 °C	2 - 3
Gel Time (Min.)	3 - 5
Demold Time (Min.)	15
Post Cure (Hrs./Temp. °C)	16/100

Typical Elastomer Properties (MBOCA Cured)

	85	90	95	100
Stoichiometry (%)	85	90	95	100
MBOCA Level (PPH)	18.1	19.2	20.2	21.5
Hardness (D)	70	70	70	69
Modulus psi (MPa)				
100% Elongation	3,300 (22.8)	3,550 (24.5)	3,600 (24.8)	3,600 (24.8)
300% Elongation	7,700 (53.1)	7,800 (53.8)	7,800 (53.8)	7,900 (54.5)
Tensile Strength psi (MPa)	8,700 (60.0)	8,900 (61.4)	9,050 (62.4)	9,000 (62.1)
Elongation (%)	320	330	340	350
Tear Resistance PLI (N/mm)				
Die C	770 (135)	800 (140)	830 (145)	810 (142)
Split	410 (72)	470 (82)	510 (89)	485 (85)
Compression Set (%), Method B:				
25% deflection, 22 hrs. at 70 °C	29	30	38	42
Rebound (%)	30	33	33	42
Compression Modulus psi (MPa)				
10%	1,500 (10.3)	1,700 (11.7)	1,870 (12.9)	1,790 (12.3)
25%	3,400 (23.4)	3,650 (25.2)	3,850 (26.5)	3,490 (24.1)
Specific Gravity	1.29	1.29	1.29	1.29
NBS Abrasion	-	300	-	-
Taber Abrasion	-	75	-	-
Tg, glass transition (°C)	-	-3	-	-



To Order or Obtain More Information

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