

## Polyurethane Specialty Products Group

# VERSATHANE® D-5QM

## TDI-Polyester Prepolymer

### Prepolymer Properties

		Specifications	Typical
NCO (%)		4.8 - 5.2	5.0
Viscosity (cPs)	- 70 °C	≤ 4,000	3,100 – 4,000
	- 100 °C	-	~ 800
Specific Gravity	- 100 °C	-	1.17
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	4 - 6
Gel Time (Min.)	6 - 10
Demold Time (Min.)	30
Post Cure (Hrs./Temp. °C)	16/100

### Typical Elastomer Properties (MBOCA Cured)

Stoichiometry (%)	85	90	95	100
MBOCA Level (PPH)	13.5	14.3	15.1	15.9
Hardness (D)	50	50	50	49
Modulus psi (MPa)				
100% Elongation	1,450 (10.0)	1,520 (10.5)	1,530 (10.5)	1,530 (10.5)
300% Elongation	2,950 (20.3)	2,950 (20.3)	3,000 (20.7)	2,950 (20.3)
Tensile Strength psi (MPa)	6,500 (44.8)	6,700 (46.2)	7,000 (48.3)	7,100 (49.0)
Elongation (%)	460	470	500	510
Tear Resistance PLI (N/mm)				
Die C	570 (100)	600 (105)	620 (109)	600 (105)
Split	310 (54)	345 (60)	365 (64)	340 (60)
Compression Set (%), Method B:				
25 % deflection, 22 hrs. at 70 °C	30	30	36	40
Rebound (%)	32	33	33	34
Compression Modulus psi (MPa)				
10%	780 (5.4)	800 (5.5)	850 (5.9)	825 (5.7)
25%	1,800 (12.4)	1,890 (13.0)	1,950 (13.4)	1,900 (13.1)
Specific Gravity	1.27	1.27	1.27	1.27
NBS Abrasion	-	183	-	-
Taber Abrasion	-	165	-	-
Tg, glass transition (°C)	-	- 22	-	-



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## ***To Order or Obtain More Information***

If you would like to place an order or receive additional information, please write or call Air Products at the following location.

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