

## Polyurethane Specialty Products Group

# VERSATHANE® 1090

## TDI-Polyether Prepolymer

### Prepolymer Properties

		Specifications	Typical
NCO (%)		5.1 - 5.5	5.3
Viscosity (cPs)	- 70 °C	≤ 800	-
	- 100 °C	-	300
Specific Gravity	- 100 °C	-	1.02
Appearance		-	Viscous Liquid
Residual TDI (%)		< 0.7	< 0.5

### Processing Conditions

Stoichiometry (%)	95
Versathane Temperature (°C)	70 - 85
MBOCA Temperature (°C)	100 - 115
Mold Temperature (°C)	93 - 100
Pot Life (Min.) – 100 °C	4 - 6
Gel Time (Min.)	7 - 10
Demold Time (Min.)	30
Post Cure (Hrs./Temp. °C)	6/100

### Typical Elastomer Properties (MBOCA Cured)

Stoichiometry (%)	85	90	95
MBOCA Level (PPH)	14.0	14.9	15.7
Hardness (A)	90	90	91
Modulus psi (MPa)			
100% Elongation	1,340 (9.2)	1,420 (9.8)	1,440 (9.9)
300% Elongation	2,600 (17.9)	2,770 (19.1)	2,630 (18.1)
Tensile Strength psi (MPa)	3,930 (27.1)	4,470 (30.8)	4,620 (31.9)
Elongation (%)	360	370	395
Tear Resistance PLI (N/mm)			
Die C	410 (72)	440 (77)	465 (81)
Split	120 (21)	140 (25)	150 (26)
Compression Set (%), Method B: 25% deflection, 22 hrs. at 70°C	29	30	33
Rebound (%)	40	40	38
Compression Modulus psi (MPa)			
10%	510 (3.5)	550 (3.8)	560 (3.9)
25%	1,325 (9.1)	1,390 (9.6)	1,420 (9.8)
Specific Gravity	1.13	1.13	1.13



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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.

### **Corporate Headquarters**

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