

Polyurethane Specialty Products Group

AIRTHANE® PET-80A

TDI-Polyether Prepolymer

Prepolymer Properties

		Typical
NCO (%)		2.6
Viscosity (cPs)	- 40 °C	7,000 - 8,000
	- 70 °C	2,000 - 2,200
Specific Gravity	- 70 °C	0.98
Residual TDI (%)		< 0.1

Processing and Elastomer Properties for Multiple Curatives

MBOCA Cured

Processing Conditions

MBOCA Level, 95% Stoichiometry (%)	8
Airthane Temperature (°C)	90
Pot Life (Min.) - 75 °C	20
Mold Temperature (°C)	100
Demold Time (Min.)	90
Post Cure (Hrs./Temp. °C)	15/100

Typical Elastomer Properties

Hardness (A)	79 - 80
Modulus psi (MPa)	
100% Elongation	600 (4.1)
300% Elongation	1,200 (8.3)
Tensile Strength psi (MPa)	5,000 (34.5)
Elongation (%)	550
Tear Resistance PLI (N/mm)	
Die C	350 (61)
Split	70 (12)
Compression Set (%), Method B:	
25% deflection, 22 hrs. at 70 °C	17
Rebound (%)	53
Brittleness Temperature (°C)	- 105
Specific Gravity	1.07
Linear Shrinkage (%)	1.6
Linear Coefficient of Thermal (µM/M/°C)	258.5
Expansion at 25 °C	
Electrical Properties	
Breakdown Voltage (KV)	35.1
Dielectric Strength V/mil (KV/mm)	273 (10.7)
Dielectric Constant at 1,000 Hz	5.93
Volume Resistivity (Ohms-Cm)	1.1 x 10 ¹²
Power Factor	0.0224

Versalink® 740M Cured

Processing Conditions

Versalink 740M Level, 95% Stoichiometry (%)	9.5
Airthane Temperature (°C)	90
Pot Life (Min.) - 75 °C	15
Mold Temperature (°C)	100
Demold Time (Min.)	90
Post Cure (Hrs./Temp. °C)	15/100

Typical Elastomer Properties

Hardness (A)	81
Modulus psi (MPa)	
100% Elongation	505 (3.5)
200% Elongation	645 (4.4)
300% Elongation	915 (6.3)
Tensile Strength psi (MPa)	5,165 (35.6)
Elongation (%)	550
Tear Resistance PLI (N/mm)	
Die C	320 (56)
Split	7 (1)
Compression Set (%), Method B:	
25% deflection, 22 hrs. at 70 °C	31
Rebound (%)	66
NBS Abrasion Index	203

Ethacure® 300 Cured

Processing Conditions

Ethacure 300 Level, 95% Stoichiometry (%)	6.6
Airthane Temperature (°C)	85
Ethacure 300 Temperature (°C)	25
Pot Life (Min.) - 75 °C	15
Mold Temperature (°C)	100
Demold Time (Min.)	90
Post Cure (Hrs./Temp. °C)	15/100

Ethacure 300 Cured (continued)

Typical Elastomer Properties

Hardness (A)	78
Modulus psi (MPa)	
100% Elongation	625 (4.3)
200% Elongation	835 (5.8)
300% Elongation	1,100 (7.6)
Tensile Strength psi (MPa)	4,400 (30.3)
Elongation (%)	620
Tear Resistance PLI (N/mm)	
Die C	330 (58)
Split	60 (11)
Compression Set (%), Method B:	
25% deflection, 22 hrs. at 70 °C	16
Rebound (%)	72
NBS Abrasion Index	180

Versalink[®] MCDEA Cured

Processing Conditions

Versalink MCDEA Level, 95% Stoichiometry (%)	11.2
Airthane Temperature (°C)	80
Pot Life (Min.) - 80 °C	5
Mold Temperature (°C)	100
Demold Time (Min.)	60
Post Cure (Hrs./Temp. °C)	15/100

Typical Elastomer Properties

Hardness (A)	85
Modulus psi (MPa)	
100% Elongation	900 (6.2)
200% Elongation	1,100 (7.6)
300% Elongation	1,300 (9.0)
Tensile Strength psi (MPa)	3,700 (25.5)
Elongation (%)	535
Tear Resistance PLI (N/mm)	
Die C	347 (61)
Split	44 (8)
Rebound (%)	70
NBS Abrasion Index	260
Onset Melt °C	220

Trademarks and Suppliers

Ethacure Albemarle Corporation



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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