



**Era Polymers Pty. Ltd.**  
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## Erapol L-ETX80D

POLYETHER (PTMEG) TDI PREPOLYMER

### TECHNICAL DATASHEET

**Erapol L-ETX80D** is a liquid isocyanate terminated pre-polymer based on the high performance PTMEG polyether polyol.

When reacted with MOCA the product produces a polyether elastomer with a hardness of **80 Shore D**, but has been designed to have a long pot life.

Polymers made from **Erapol L-ETX80D** exhibit high impact strength coupled with outstanding abrasion and chemical resistance as well as high load bearing capacity.

Additionally, **Erapol L-ETX80D** is a lower free TDI version of Erapol ETX80D.

### Application

Typical uses for this polymer include forklift truck tyres, rolls, gears etc.

### Product Specification

% NCO	9.50 ± 0.30
Specific Gravity at 25°C	1.10
Viscosity at 80°C (cps)	300 – 800
Colour	Clear, light amber

### Mixing and Curing Conditions

		L-ETX80D / MOCA
Erapol L-ETX80D	(pph)	100
MOCA Level	(pph)	26.0
Recommended % Theory		85
Erapol Temperature	(°C)	60 – 65
Curative Temperature	(°C)	110 – 120
Pot Life	(mins)	5 – 7
Demould Time at 110°C	(mins)	15 – 25
Post Cure Time at 110°C	(hrs)	24



## Physical Properties

Properties presented below are to be used as a guide and not intended for specification purposes.

		L-ETX80D / MOCA	TEST METHOD
Hardness	(Shore D)	78 ± 3	AS1683.15
Tensile Strength	MPa (psi)	52 (7542)	AS1683.11
100% Modulus	MPa (psi)	40 (5801)	AS1683.11
200% Modulus	MPa (psi)	50 (725)	AS1683.11
Elongation	(%)	220	AS1683.11
Angle Tear Strength, Die C	kN/m (pli)	145 (828)	AS1683.12
Trouser Tear Strength	kN/m (pli)	49 (280)	AS1683.12
DIN Resilience	(%)	51	DIN53512
DIN Abrasion Resistance 10N	(mm <sup>3</sup> )	146	AS1683.21
Compression Set / 22 hr at 70°C	(%)	55	AS1683.13
Cured Specific Gravity	(g/cm <sup>3</sup> )	1.18	AS1683.4
Flexural Strength	MPa (psi)	44 (6411)	AS2132
Flexural Modulus	MPa (psi)	1520 (220,427)	AS2132
Izod Impact Strength, unnotched	(kJ/m <sup>2</sup> )	75	AS1146.1

## Processing Procedure

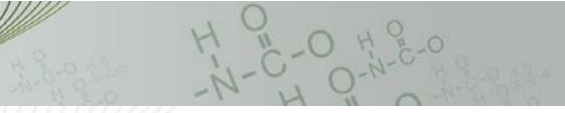
1. **Erapol L-ETX80D** should be heated to the recommended processing temperature and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops.
2. The curative should be added to **L-ETX80D**, the MOCA must first be melted at 110 - 120°C. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.
3. Pour mixed materials into moulds that have been preheated to 100°C and pre-coated with release agent.

**NOTE:** If post cure temperature is less than 100°C, the polymer may have a glassiness/brittle appearance. The post cure time should be adhered.

## Adhesion

Adhesion of Erapol based elastomers to various substrates is at best marginal if a primer is not used. Please consult Era Polymers for specific recommendations to improve adhesion.





## Handling Precautions

**Erapol L-ETX80D** contains small amounts of free TDI. Therefore the product should be used in well-ventilated areas. Avoid breathing in vapours and protect skin and eyes from contact.

In case of skin contact, immediately remove excess, wash with soap and water. For eye contact, immediately flush with water for at least 15 minutes. Call a physician.

If nose, throat or lungs become irritated from breathing in vapours, remove exposed person to fresh air. Call a physician.



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