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## Erapol ETX76D

HIGH PERFORMANCE POLYETHER BASED  
URETHANE ELASTOMER

### TECHNICAL DATASHEET

**Erapol ETX76D** 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 75 Shore D, but has been designed to have a long pot life.

Polymers made from **Erapol ETX76D** exhibit high impact strength coupled with outstanding abrasion and chemical resistance as well as high load bearing capacity.

### Application

Successful applications include rigid wear parts for mining and industrial use, drive pulleys, pads, hydrocyclone parts, feed and distributor boxes, gears etc.

### Product Specification

% NCO	8.8 ± 0.2
Specific Gravity at 25°C	1.10
Viscosity at 80°C (cps)	400 - 900
Colour	Clear, pale amber

### Mixing and Curing Conditions

		ETX76D / MOCA	ETX76D / Ethacure 300
Erapol ETX76D	(pph)	100	100
MOCA Level	(pph)	25.2	-
Ethacure 300 level	(pph)	-	20.2
Recommended % Theory		90	90
Erapol Temperature	(°C)	60 - 70	45 - 55
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	3 - 4	3 - 5
Demould Time at 110°C	(mins)	30	30
Post Cure Time at 110°C	(hrs)	20 - 24	20 - 24



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## Physical Properties

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

		ETX76D/MOCA	ETX76D/E300*	TEST METHOD
<b>Hardness</b>	(Shore D)	75 ± 3	70 ± 3	AS1683.15
<b>Tensile Strength</b>	MPa (psi)	46 (6672)	42 (6092)	AS1683.11
<b>100% Modulus</b>	MPa (psi)	31 (4496)	-	AS1683.11
<b>200% Modulus</b>	MPa (psi)	39 (5656)	-	AS1683.11
<b>Angle Tear Strength, Die C</b>	(kN/m)	179	164	AS1683.12
<b>Trouser Tear Strength</b>	(kN/m)	32	31	AS1683.12
<b>Elongation</b>	(%)	230	175	AS1683.11
<b>DIN Resilience</b>	(%)	42	46	DIN 53512
<b>DIN Abrasion Resistance 10N</b>	(mm <sup>3</sup> )	125	115	AS1683.21
<b>Cured Specific Gravity</b>	(g/cm <sup>3</sup> )	1.12	1.12	AS1683.4

\*Ethacure 300

## Processing Procedure

1. **Erapol ETX76D** should be heated to 65 ± 5°C and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops. Containers should be unlined metal or plastic and large enough to allow for foaming during degassing.
2. When adding MOCA to ETX76D, the MOCA must be melted at 110-120°C prior to mixing and Ethacure 300 processed at room temperature. After adding curative, mix thoroughly and degas at -95 kpa for 1.5 minutes.
3. Pour the mixed materials into moulds, which have been pre-heated into moulds at 80 - 100°C and coated with release agent.

NOTE: If post cure temperature is less than 100°C, the polymer may have a glassiness/brittle appearance.

## 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 ETX76D** 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.

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