



**Era Polymers Pty. Ltd.**  
25-27 Green Street, Banksmeadow  
Sydney, NSW 2019  
AUSTRALIA  
www.erapol.com.au

## Erapol EHP60D

POLYETHER (PTMEG) TDI PREPOLYMER

### TECHNICAL DATASHEET

**Erapol EHP60D** is a liquid isocyanate-terminated prepolymer based on PTMEG polyether polyol. When cured with MOCA it produces a **60 Shore D** elastomer. The polyurethane elastomer produced from **EHP60D** prepolymer exhibits mechanical properties superior to those found in conventional elastomers.

Polymers made from **Erapol EHP60D** exhibit outstanding abrasion, impact resistance, hydrolysis resistance and high load bearing capacity.

#### Application

Typical uses for this polymer include caster and forklift wheels, screens, cyclones and many other end use applications.

#### Product Specification

<b>% NCO</b>	7.50 ± 0.25
<b>Specific Gravity @ 25°C</b>	1.10
<b>Viscosity @ 80°C (cps)</b>	400 - 800
<b>Colour</b>	Clear, light amber

#### Mixing and Curing Conditions

		<b>EHP60D / MOCA</b>	<b>EHP60D / Ethacure 300</b>
<b>Erapol EHP60D</b>	(pph)	100	100
<b>MOCA Level</b>	(pph)	22.7	-
<b>Ethacure 300 Level</b>	(pph)	-	18.2
<b>Recommended % Theory</b>		95	95
<b>Erapol Temperature</b>	(°C)	60 - 70	55 - 65
<b>Curative Temperature</b>	(°C)	110 - 120	20 - 30
<b>Pot Life</b>	(mins)	3	4
<b>Demould Time @ 110°C</b>	(hrs)	< 1	< 1
<b>Post Cure Time @ 110°C</b>	(hrs)	16	16



This information is of general nature and is supplied without recommendation of guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Era Polymers cannot accept liability for loss or damage through use. Whilst these technical details are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are supplied. Users must, by comprehensive testing, evaluate this product in their own application.

## Physical Properties

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

		EHP60D / MOCA	EHP60D / Ethacure 300	TEST METHOD
<b>Hardness</b>	(Shore D)	60 ± 3	60 ± 3	AS1683.15
<b>Tensile Strength</b>	MPa (psi)	48.0 (6962)	47.0 (6817)	AS1683.11
<b>100% Modulus</b>	MPa (psi)	17.9 (2596)	-	AS1683.11
<b>300% Modulus</b>	MPa (psi)	43.1 (6251)	-	AS1683.11
<b>Angle Tear Strength, Die C</b>	(kN/m)	168	140	AS1683.12
<b>Trouser Tear Strength</b>	(kN/m)	-	40	AS1683.12
<b>Elongation</b>	(%)	400	370	AS1683.11
<b>DIN Resilience</b>	(%)	45	45	DIN53512
<b>DIN Abrasion Resistance 10N</b>	(mm <sup>3</sup> )	68	75	AS1683.21
<b>DIN Abrasion Resistance 5N</b>	(mm <sup>3</sup> )	22	23	AS1683.21
<b>Compression Set / 22 hr @ 70°C</b>	(%)	-	-	AS1683.13
<b>Cured Specific Gravity</b>	(g/cm <sup>3</sup> )	1.16	1.15	AS1683.4

## Processing Procedure

1. **Erapol EHP60D** should be heated to the recommended processing temperature and thoroughly degassed at 1 - 5 mm Hg vacuum until excessive foaming stops.
2. The curative should be added to **EHP60D**, the MOCA must first be melted at 110 - 120°C prior to mixing and Ethacure 300 processed at room temperature. 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 - 110°C and pre-coated with release agent.

## 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 EHP60D** contains small amounts of free TDI. Therefore the product should be used in well-ventilated areas. Avoid inhaling 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 inhaling vapours, remove exposed person to fresh air. Call a physician.