

# **Erapol ETL85A**

POLYETHER (PPG) TDI PREPOLYMER

#### **TECHNICAL DATASHEET**

**Erapol ETL85A** is a liquid isocyanate terminated pre-polymer based on PPG polyol. Having a PPG backbone means that this polymer is considerably cheaper than polymers made from PTMEG.

Additionally **ETL85A** can be blended with premium grade compounds to product formulations to intermediate performance/cost.

### **Application**

Generally used in applications where the outstanding properties of PTMEG based materials are not needed.

## **Product Specification**

NCO Content (%)	$4.20 \pm 0.20$	
Specific Gravity at 25°C	1.07	
Viscosity at 80°C (cps)	300 - 700	
Colour	Amber	

## **Mixing and Curing Conditions**

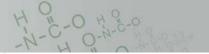
		ETL85A / MOCA	ETL85A / Ethacure 300	
Erapol ETL85A	(pph)	100	100	
MOCA Level	(pph)	12.5	//////// <del>\</del>	
Ethacure 300 Level	(pph)	M IIIII - 7977)	10.0	
Recommended % Theory		95	95	
<b>Erapol Temperature</b>	(°C)	75 - 85	60 - 70	
<b>Curative Temperature</b>	(°C)	110 - 120	20 - 30	
Pot Life	(mins)	10	8	
Demould Time at 100°C	(hrs)	2	2	
Post Cure Time at 100°C	(hrs)	16	16	



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## **Physical Properties**

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

		ETL85A / MOCA	ETL85A / Ethacure 300	TEST METHOD
Hardness	(Shore A)	85 ± 3	85 ± 3	AS1683.15
Tensile Strength	MPa (psi)	28 (4061)	12.4 (1798)	AS1683.11
100% Modulus	MPa (psi)	5.3 (769)	4.1 (595)	AS1683.11
300% Modulus	MPa (psi)	11.0 (1595)	7.6 (1102)	AS1683.11
Angle Tear Strength, Die	C (kN/m)	70	70	AS1683.12
Trouser Tear Strength	(kN/m)	30	<del>-</del>	AS1683.12
Elongation	(%)	525	400	AS1683.11
DIN Resilience	(%)	741/44 <del>1</del> /4/44	-	DIN53512
<b>DIN Abrasion Resistance</b>	<b>10N</b> (mm <sup>3</sup> )	140	-	AS1683.21
<b>DIN Abrasion Resistance</b>	<b>5N</b> (mm <sup>3</sup> )	49	42	AS1683.21
Compression Set / 22 hr	at 70°C (%)	45	60	AS1683.13
<b>Cured Specific Gravity</b>	(g/cm³)	1.11	1.10	AS1683.4

### **Processing Procedure**

- 1. **Erapol ETL85A** should be heated to the recommended processing temperature and thoroughly degassed at -95kpa of vacuum until excessive foaming stops.
- 2. The curative should be added to **ETL85A**, 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 80 100°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 ETL85A** 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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