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## Erapol ETL91A

POLYETHER (PPG) TDI PREPOLYMER

### TECHNICAL DATASHEET

**Erapol ETL91A** is a liquid isocyanate terminated pre-polymer based on PPG polyol.

Having a PPG backbone means that this pre-polymer is considerably more economical than polymers made from PTMEG.

Additionally **ETL91A** 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

<b>% NCO</b>	5.00 ± 0.25
<b>Specific Gravity @ 25°C</b>	1.03
<b>Viscosity @ 80°C (cps)</b>	100 - 600
<b>Colour</b>	Amber

#### Mixing and Curing Conditions

		<b>ETL91A / MOCA</b>	<b>ETL91A / Ethacure 300</b>
<b>Erapol ETL91A</b>	(pph)	100	100
<b>MOCA Level</b>	(pph)	15.0	-
<b>Ethacure 300 Level</b>	(pph)	-	12.0
<b>Recommended % Theory</b>		95	95
<b>Erapol Temperature</b>	(°C)	75 - 85	60 - 70
<b>Curative Temperature</b>	(°C)	110 - 120	20 - 30
<b>Pot Life</b>	(mins)	6	5
<b>Demould Time @ 100°C</b>	(hrs)	1	1
<b>Post Cure Time @ 100°C</b>	(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.

		ETL91A / MOCA	TEST METHOD
<b>Hardness</b>	(Shore A)	90 ± 3	AS1683.15
<b>Tensile Strength</b>	MPa (psi)	25.5 (3698)	AS1683.11
<b>100% Modulus</b>	MPa (psi)	6.2 (899)	AS1683.11
<b>300% Modulus</b>	MPa (psi)	11.7 (1697)	AS1683.11
<b>Angle Tear Strength, Die C</b>	(kN/m)	80	AS1683.12
<b>Elongation</b>	(%)	430	AS1683.11
<b>DIN Resilience</b>	(%)	-	DIN53512
<b>DIN Abrasion Resistance 10N</b>	(mm <sup>3</sup> )	140	AS1683.21
<b>DIN Abrasion Resistance 5N</b>	(mm <sup>3</sup> )	45	AS1683.21
<b>Compression Set / 22 hr @ 70°C</b>	(%)	45	AS1683.13
<b>Cured Specific Gravity</b>	(g/cm <sup>3</sup> )	1.10	AS1683.4

## Processing Procedure

1. **Erapol ETL91A** should be heated to the recommended processing temperature and thoroughly degassed at 1 - 5 mm Hg of vacuum until excessive foaming stops.
2. The curative should be added to **ETL91A**, the MOCA must first be melted at 110 - 120°C prior to mixing. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.
3. Pour mixed **ETL91A/MOCA** 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 recommendation to improve adhesion.

## Handling Precautions

**Erapol ETL91A** 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.