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## Erapol L-E65D

POLYETHER (PTMEG) TDI PREPOLYMER

### TECHNICAL DATASHEET

**Erapol L-E65D** is a high performance liquid isocyanate terminated prepolymer based on PTMEG polyether polyol.

Polymers made from **Erapol L-E65D** exhibit high impact strength coupled with excellent abrasion, hydrolysis resistance and chemical resistance as well as high load bearing capacity.

Additionally, **Erapol L-E65D** is a low free TDI version of Erapol ET65D.

### Application

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

### Product Specification

% NCO	8.30 ± 0.20
Specific Gravity at 77°F (25°C)	1.11
Viscosity at 176°F (80°C) (cps)	300 - 700
Colour	Clear, light amber

### Mixing and Curing Conditions

		L-E65D / MOCA	L-E65D / Eracure 300
Erapol L-E65D	(pph)	100	100
MOCA Level	(pph)	25.4	-
Eracure 300 Level	(pph)	-	20.4
Recommended % Theory		95	95
Erapol Temperature	°F (°C)	140 – 149 (60 – 65)	131 – 149 (55 – 65)
Curative Temperature	°F (°C)	230 (110)	68 – 86 (20 – 30)
Pot Life	(mins)	4 - 6	5 - 7
Demould Time at 230°F (110°C)	(mins)	30	30
Post Cure Time at 230°F (110°C)	(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.

		L-E65D / MOCA	L-E65D / Eracure 300
<b>Hardness</b>	(Shore D)	65	65
<b>Tensile Strength</b>	MPa (psi)	7832 (54)	7542 (52)
<b>100% Modulus</b>	MPa (psi)	3626 (25)	3989 (27.5)
<b>200% Modulus</b>	MPa (psi)	5497 (37.9)	5700 (39.3)
<b>Elongation</b>	(%)	350	290
<b>Angle Tear Strength, Die C</b>	pli (kN/m)	794 (139)	771 (135)
<b>Split Tear Strength</b>	pli (kN/m)	331 (58)	343 (60)
<b>DIN Resilience</b>	(%)	46	42
<b>DIN Abrasion Resistance 10N</b>	(mm <sup>3</sup> )	69	74
<b>Cured Specific Gravity</b>	(g/cm <sup>3</sup> )	1.161	1.152

## Processing Procedure

1. **Erapol L-E65D** should be heated to 140-158°F (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 **Erapol L-E65D**, the MOCA must be melted at 230-248°F (110-120°C) prior to mixing and Eracure 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 176-212°F (80 - 100°C) and coated with release agent.

**NOTE:** If post cure temperature is less than 212°F, the polymer may have a glassiness/brittle appearance.

## Adhesion

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

## Handling Precautions

**Erapol L-E65D** 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.