

Erapol L-E93A

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol L-E93A is a liquid isocyanate terminated pre-polymer based on PTMEG polyol.

Polymers made from **Erapol L-E93A** exhibit outstanding abrasion resistance, high load bearing capability, low heat build-up and excellent low temperature flexibility.

Moreover, Erapol L-E93A has a lower free TDI content compared to conventional grades.

Application

Typical used for this polymer include forklift and caster wheels, screens, cyclones etc.

Product Specification

% NCO	5.00 ± 0.20		
Specific Gravity at 77°F (25°C)	1.05		
Viscosity at 176°F (80°C) (cps)	500 - 900		
Colour	Clear, light amber		

Mixing and Curing Conditions

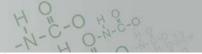
	111	L-E93A / MOCA	L-E93A / Eracure 300	L-E93A / Eracure 110
Erapol L-E93A	93A (pph)		100	100
MOCA Level	(pph)	15.0	<i>77771</i> 711	-
Eracure 300 Level	(pph)		12.0	-
Eracure 110 Level	(pph)	111111111111111111111111111111111111111	<i>1999</i>	12.9
Recommended % Theory		95	95	95
Erapol Temperature	°F (°C)	167-185 (75-85)	149 -167 (65 – 75)	149 -167 (65 – 75)
Curative Temperature	°F (°C)	230-248 (110-120)	68 – 86 (20 – 30)	68 – 86 (20 – 30)
Pot Life	(mins)	8	8	8
Demould Time at 212°F (100	°C) (hrs)	1	1	1
Post Cure Time at 212°F (100	O°C) (hrs)	16	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.

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Physical Properties

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

	7/////////	L-E93A /	L-E93A /	L-E93A /
	//>	MOCA	E300*	E110**
Hardness	(Shore A)	93	93	89
Tensile Strength	psi (MPa)	6381 (44)	5802 (40)	5076 (35)
100% Modulus	psi (MPa)	1595 (11)	1102 (7.6)	1595 (11)
200% Modulus	psi (MPa)	1813 (12.5)	1653 (11.4)	2219 (15.3)
300% Modulus	psi (MPa)	2784 (19.2)	2248 (15.5)	2756 (19)
Angle Tear Strength, Die C	pli (kN/m)	628 (110)	508 (89)	559.5 (98)
Split Tear Strength	pli (kN/m)	325 (57)	337 (59)	297 (52)
Elongation	(%)	450	420	390
DIN Resilience	(%)	50	50	55
DIN Abrasion Resistance 10N (mm ³)		61	62	27
Compression Set / 22hrs at	158°F (%)	29	38	33
Cured Specific Gravity	(g/cm³)	1.10	1.10	1.10

Please note * Eracure 300; ** Eracure 110

Processing Procedure

- 1. **Erapol L-E93A** should be heated to 167-185°F (80 \pm 5°C) and thoroughly degassed at -95kpa of vacuum until excessive foaming stops.
- 2. The curative should be added to **L-E93A**, the MOCA must first be melted at 230-248°F (110 120°C) prior to mixing and Eracure 300/Eracure 110 processed at room temperature. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.
- Pour mixed materials into moulds that have been preheated to 176-230°F (80 100°C) and precoated with release agent.

NOTE: If a longer pot life is required, then **L-E93A** should be used at 158-167°F (70 - 75°C), MOCA at 230-248°F (110 - 120°C) or Eracure 300/Eracure 110 at room temperature. Post cure temperature should be increased to 212-230°F (100 - 110°C) to avoid glassiness in the final polymer. Shrinkage will also be minimised if the above conditions are used.

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 L-E93A 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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