



**Era Polymers Pty. Ltd.**  
2-4 Green Street, Banksmeadow  
Sydney, NSW 2019  
AUSTRALIA  
www.erapol.com.au

## Erapol EMP93A

MEDIUM PERFORMANCE POLYETHER BASED  
URETHANE ELASTOMER

### TECHNICAL DATASHEET

**Erapol EMP93A** is a liquid prepolymer based on polyols that provide physical properties between Erapol High Performance Elastomers and Erapol Low Cost Elastomers.

Polymers made from **Erapol EMP93A** exhibit good abrasion resistance, high load bearing capability, low heat build up and excellent low temperature flexibility.

**Erapol EMP93A** has better physical properties than **EMP93A**.

#### Product Specification

% NCO	5.0 ± 0.2
Specific Gravity at 25°C	1.05
Viscosity at 80°C (cps)	300 - 700
Colour	Clear, light amber

#### Mixing and Curing Conditions

		EMP93A / MOCA	EMP93A / Ethacure 300
Erapol EMP93A	(pph)	100	100
MOCA level	(pph)	15.0	-
Ethacure 300 level	(pph)	-	12.0
Recommended % Theory		95	95
Erapol Temperature	(°C)	80 - 85	60 - 70
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	7	6
Cure at 100°C	(hrs)	1	1
Post Cure Time at 100°C	(hrs)	8	8
Post Cure Time at 70°C	(hrs)	16	16

All results are based on 100 grams of **Erapol EMP93A** at 95°C.



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.

		EMP93A/MOCA	TEST METHOD
<b>Hardness</b>	(Shore A)	93 ± 3	AS1683.15
<b>Tensile Strength</b>	MPa (psi)	27.5 (3988)	AS1683.11
<b>100% Modulus</b>	MPa (psi)	9.7 (1407)	AS1683.11
<b>300% Modulus</b>	MPa (psi)	19.8 (2872)	AS1683.11
<b>Angle Tear Strength, Die C</b>	(kN/m)	98	AS1683.12
<b>Elongation</b>	(%)	350	AS1683.11
<b>DIN Resilience</b>	(%)	-	DIN 53512
<b>Compression Set / 22 hr at 70°C</b>	(%)	42	AS1683.13
<b>Cured Specific Gravity</b>	(g/cm <sup>3</sup> )	1.10	AS1683.4

## Processing Procedure

1. **Erapol EMP93A** should be heated to 80-85°C and thoroughly degassed at approximately -95kpa of vacuum until excessive foaming stops.
2. The curative should be added to **Erapol EMP93A**, 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 **Erapol EMP93A/MOCA** or **Erapol EMP93A/Ethacure 300** into moulds that have been preheated at 80 -100°C and precoated 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.

The following primers are recommended for the various substrates:

AD-6	Two component metal primer, room temperature cure.
AD-1147	Single component metal primer, ambient to 100oC cure.
PR-1167	Single component primer for rubber and polyurethanes.

**NOTE:** It is important that all dirt, rust, grease and all be removed from surfaces prior to applying the primers.



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.