

# **Erapol ECP95A**

HIGH PERFORMANCE POLYCAPROLACTONE

BASED POLYURETHANE ELASTOMER

#### **TECHNICAL DATASHEET**

**Erapol ECP95A** is a premium product based on polycaprolactone polyols, which when cured with Moca produces a 95 Shore A elastomer. The polyurethane elastomer exhibits excellent mechanical properties, similar to that of standard polyester polyurethanes, but with the advantage of superior hydrolysis resistance.

### **Application**

Polymers made from **Erapol ECP95A** exhibit outstanding abrasion resistance, high load bearing capability, low heat build-up and excellent low temperature flexibility.

Typical uses for this polymer include caster and forklift wheels, screens, cyclones and many other end use applications.

### **Product Specification**

5.6 – 6.0		
1.10		
700 - 1100		
Clear, light ambe		

## **Mixing and Curing Conditions**

		ECP95A / MOCA	ECP95A / E300*	ECP95A / AH41
Erapol ECP95A	(pph)	100	100	100
MOCA Level	(pph)	17.5	<i>7/////</i>	-
Ethacure 300 level	(pph)	111111-1111/	14.1	-
AH-41 level	(pph)		<i>2////</i>	17.5
Recommended % Theory		95	95	95
<b>Erapol Temperature</b>	(°C)	75 - 85	65-75	65 - 75
<b>Curative Temperature</b>	(°C)	110 - 120	20-25	20 - 25
Pot Life	(mins)	4-5	3-4	0.5
Demould Time at 100°C	(hrs)	1-2	1-2	2 1
Post Cure Time at 100°C	(hrs)	16	16	16

All results are based on 200 grams of Erapol ECP95A at 80°C.

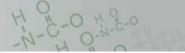
<sup>\*</sup>Ethacure 300



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.

ECP95A/	ECP95A/	ECP95A/	TEST
MOCA	Ethacure 300	AH-41	METHOD
95 ± 3	94 ± 3	92 ± 3	AS1683.15
0.0 (5801)	41.0 (5946)	-	AS1683.11
7.2 (1044)	-	-	AS1683.11
/// <del>/</del> ////////////////////////////////	-	-	AS1683.11
1.3 (1638)	MINNON-	-	AS1683.11
120	124	-	AS1683.12
111 <del>1</del> 1111	51	-	AS1683.12
395	465	-	AS1683.11
30	X	-	DIN 53512
70	90	-	AS1683.21
35	44	-	AS1683.21
32	-11111-	-	AS1683.13
1.20	1.15	1.14	AS1683.4
	MOCA  95 ± 3  0.0 (5801)  7.2 (1044)  -  1.3 (1638)  120  -  395  30  70  35  32	MOCA         Ethacure 300           95 ± 3         94 ± 3           0.0 (5801)         41.0 (5946)           7.2 (1044)         -           -         -           1.3 (1638)         -           120         124           -         51           395         465           30         -           70         90           35         44           32         -	MOCA         Ethacure 300         AH-41           95 ± 3         94 ± 3         92 ± 3           0.0 (5801)         41.0 (5946)         -           7.2 (1044)         -         -           -         -         -           1.3 (1638)         -         -           120         124         -           -         51         -           395         465         -           30         -         -           70         90         -           35         44         -           32         -         -

<sup>(\*)</sup> NOTE: AH-41 is for machine processing only.

### **Processing Procedure**

- 1. **Erapol ECP95A** should be heated to 75-85°C and thoroughly degassed at -95 KPa of vacuum until excessive foaming stops.
- 2. The Curative should be added to **Erapol ECP95A**, the Moca must first be melted at 110 120°C prior to mixing and Ethacure 300 LC processed at room temperature. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.
- 3. Pour mixed **Erapol ECP95A/Moca** or **ECP95A/Ethacure 300** LC into moulds which have been preheated to 100-110°C and pre-coated with release agent.
- 4. Cure mixed **Erapol ECP95A** between 100-110°C for 16 hours, to produce maximum physical properties.

#### 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.



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## **Handling Precautions**

**Erapol ECP95A** 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.

If nose, throat or lungs become irritated from breathing in vapours, remove exposed person to fresh air. Call a physician.



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