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

Erapol EHP85A

EXTRA HIGH PERFORMANCE URETHANE ELASTOMER

TECHNICAL DATASHEET

Erapol EHP85A is a high technology product based on new generation polyols. When cured with **MOCA** it produces an **85 Shore A** elastomer. The polyurethane elastomer very good mechanical properties.

Polymers made from **Erapol EHP85A** exhibit outstanding abrasion resistance, high load bearing capability, low heat build-up and excellent low temperature flexibility.

Application

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

Product Specification

% NCO	3.50 ± 0.20
Viscosity at 80°C (cps)	900 – 1600
Colour	Hazy viscous liquid

Mixing and Curing Conditions

		EHP85A / MOCA	EHP85A / Ethacure 300
Erapol EHP85A	(pbw)	100	100
MOCA Level	(pbw)	11.1	-
Ethacure 300 Level	(pwb)	-	8.9
Recommended % Theory		100	100
Erapol Temperature	(°C)	70 – 80	70 – 80
Curative Temperature	(°C)	100 – 110	20 - 30
Pot Life at 80°C	(mins)	17	14
Demould Time at 100-110°C	(hrs)	2	2
Post Cure Time at 100°C	(hrs)	16	16

Physical Properties

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

		EHP85A/MOCA	EHP85A/E300*	TEST METHOD
Hardness	(Shore A)	83 ± 2	82 ± 3	AS1683.15
Tensile Strength	MPa (psi)	38 (5500)	38 (5500)	AS1683.11
100% Modulus	MPa (psi)	7.3 (1060)	6.7 (972)	AS1683.11
300% Modulus	MPa (psi)	13.1 (1900)	11 (1595)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	72	83	AS1683.12
Trouser Tear Strength	(kN/m)	30	35	AS1683.12
Elongation	(%)	565	650	AS1683.11
DIN Resilience	(%)	61	61	DIN53512
DIN Abrasion Resistance 10N	(mm^3)	30	25	AS1683.21
Compression Set / 22 hrs at 70°C	(%)	27	36	AS1683.13
Cured Specific Gravity	(g/cm^3)	1.07	1.07	AS1683.4

Processing Procedure

1. **Erapol EHP85A** should be heated to 70-80°C and thoroughly degassed at –95 kPa of vacuum until excessive foaming stops.

2. The Curative should be added to **EHP85A**, the **MOCA** must first be melted at 110 - 120°C prior to mixing and Ethacure 300 at 25-30°C. After adding the curative, mix thoroughly and being careful not to introduce air into the mixture. (A second step in degassing the mixture to remove air may be added if required).

3. Pour mixed **EHP85A/MOCA** into moulds that have been preheated to 100°C and pre-coated with release agent.

4. Cure mixed **EHP85A** at 100°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.

Handling Precautions

EHP85A contains low amounts of free TDI, 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.