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Erapol EMP92A

POLYETHER TDI PREPOLYMERS

TECHNICAL DATASHEET

Erapol EMP92A 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 EMP92A** exhibit good 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	5.0 ± 0.2
Specific Gravity at 25°C	1.05
Viscosity at 80°C (cps)	300 - 700
Colour	Amber

Mixing and Curing Conditions

		EMP92A / MOCA	EMP92A / Ethacure 300	EMP92A / Eracure 110
Erapol EMP92A	(pph)	100	100	100
MOCA level	(pph)	15.0	-	-
Ethacure 300 level	(pph)	-	12.0	-
Eracure 110 level		-	-	12.9
Recommended % Theory		95	95	95
Erapol Temperature	(°C)	75 - 85	65 - 75	65 - 75
Curative Temperature	(°C)	110 - 120	20 - 30	20 - 30
Pot Life	(mins)	5	5	5
Demould Time at 100°C	(hrs)	1	1	1
Post Cure Time at 100°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.

Physical Properties

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

		EMP92A/MOCA	EMP92A/E110	TEST METHOD
Hardness	(Shore A)	93 ± 3	92 ± 3	AS1683.15
Tensile Strength	MPa (psi)	31.0 (4496)	36.0 (5221)	AS1683.11
100% Modulus	MPa (psi)	9.0 (1305)	9.6 (1392)	AS1683.11
300% Modulus	MPa (psi)	17.2 (2495)	16.8 (2437)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	90	72	AS1683.12
Trouser Tear Strength	(kN/m)	-	27	AS1683.12
Elongation	(%)	540	500	AS1683.11
DIN Resilience	(%)	-	50	DIN 53512
DIN Abrasion Resistance 10N	(mm ³)	85	50	AS1683.21
DIN Abrasion Resistance 5N	(mm ³)	29	31	AS1683.21
Compression Set / 22 hrs at 70°C	(%)	45	50	AS1683.13
Cured Specific Gravity	(g/cm ³)	1.10	1.05	AS1683.4

Processing Procedure

1. **Erapol EMP92A** 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 **EMP92A**, 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 **EMP92A/MOCA** or **EMP92A/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 recommendations to improve adhesion.

Handling Precautions

Erapol EMP92A 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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