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AUSTRALIA
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Erapol XLS95A

POLYESTER TDI PREPOLYMER –
LOW FREE TDI CONTENT

TECHNICAL DATASHEET

Erapol XLS95A is a new generation of isocyanate-terminated polyester based polyurethane prepolymer with the added benefit of extremely low monomer content. It is formulated for use with MOCA curative and gives a final hardness of 95 Shore A.

Additionally, **Erapol XLS95A** has a very low free TDI content (less than 0.1%). The low viscosity and long pot-life allow for greater processing flexibility.

Application

Typical uses of this polymer include forklift truck tyres, roles and gears, die pads etc.

Product Specification

% NCO	5.40 ± 0.20
Specific Gravity at 70°C (g/cm^3)	1.19
Viscosity at 80°C (cps)	900 - 1100
Colour	Clear, light amber

Mixing and Curing Conditions

		XLS95A / MOCA
Erapol XLS95A	(pph)	100
MOCA Level	(pph)	16.3
Recommended % Theory		95
Erapol Temperature	(°C)	75 - 85
Curative Temperature	(°C)	110 - 120
Pot Life	(mins)	6 - 10
Demould Time at 100°C	(mins)	20 - 30
Post Cure Time at 100°C	(hrs)	16

Physical Properties

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

		XLS95A / MOCA	TEST METHOD
Hardness	(Shore A)	95 ± 3	AS1683.15
Tensile Strength	MPa (psi)	48 (6962)	AS1683.11
100% Modulus	MPa (psi)	12.8 (1856)	AS1683.11
200% Modulus	MPa (psi)	18.3 (2654)	AS1683.11
300% Modulus	MPa (psi)	26.8 (3887)	AS1683.11
Elongation	(%)	460	AS1683.11
Angle Tear Strength, Die C	kN/m (pli)	126.5 (722)	AS1683.12
Trouser Tear Strength	kN/m (pli)	48.7 (278)	AS1683.12
DIN Resilience	(%)	31	DIN 53512
DIN Abrasion Resistance 10N	(mm^3)	65	AS1683.21
Compression Set / 22 hr at 70°C	(%)	32	AS1683.13
Cured Specific Gravity	(g/cm^3)	1.28	AS1683.4

Processing Procedure

1. **Erapol XLS95A** should be heated to 80 ± 5°C and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops.

2. The curative should be added to **XLS95A**, the MOCA must first be melted at 110 – 120°C. After adding the curative, mix thoroughly being careful not to introduce air into the mixture.

3. Pour mixed materials into moulds, which have been preheated to 100°C and pre-coated with release agent.

Adhesion

Adhesion of Erapol based elastomers to various substrates it at best marginal if a primer is not used. Please consult Era Polymers for specific recommendations to improve adhesion.

Handling Precautions

Erapol XLS95A 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.