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AUSTRALIA
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Erapol ET95A

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol ET95A is a liquid isocyanate terminated pre-polymer based on PTMEG polyether polyol. It has the advantage of being liquid at room temperature, low viscosity and fast cure.

Polymers made from **Erapol ET95A** exhibit outstanding abrasion, impact and chemical resistance as well as excellent dynamic properties.

Application

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

Product Specification

% NCO	6.25 ± 0.25
Specific Gravity at 77°F (25°C)	1.06
Viscosity at 176°F (80°C) (cps)	300 - 700
Colour	Clear, light amber

Mixing and Curing Conditions

		ET95A / MOCA	ET95A / Eracure 300
Erapol ET95A	(pph)	100	100
MOCA Level	(pph)	19.0	-
Eracure 300 Level	(pph)	-	15.0
Recommended % Theory		95	95
Erapol Temperature	°F (°C)	167-185 (75-85)	149-167 (65-75)
Curative Temperature	°F (°C)	30-248 (110-120)	68-86 (20-30)
Pot Life	(mins)	4	2
Demould Time at 212°F (100°C)	(hrs)	< 1	< 1
Post Cure Time at 212°F (100°C)	(hrs)	16	16

Physical Properties

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

		ET95A / MOCA	ET95A / Eracure 300	TEST METHOD
Hardness	(Shore A)	95	95	ASTM D2240
Tensile Strength	psi (MPa)	5511 (38)	5656 (39)	ASTM D412
100% Modulus	psi (MPa)	2045 (14.1)	1900 (13.1)	ASTM D412
300% Modulus	psi (MPa)	4177 (28.8)	4728 (32.6)	ASTM D412
Elongation	(%)	375	345	ASTM D412
Angle Tear Strength, Die C	pli (kN/m)	558.5 (97.8)	502.5 (88)	ASTM D624
Split Tear Strength	pli (kN/m)	252.4 (44.2)	139.3 (24)	AS1683.12
DIN Resilience	(%)	43	40	DIN 53512
DIN Abrasion Resistance 10N	(mm^3)	65	87	ASTM D5963
Compression Set / 22hrs at 158°F	(%)	38	31	ASTM D395
Cured Specific Gravity	(g/cm^3)	1.13	1.11	ASTM D1817

Processing Procedure

1. **Erapol ET95A** should be heated to 167-185°F (80 ± 5°C) and thoroughly degassed at -95kpa of vacuum until excessive foaming stops.

2. The curative should be added to **ET95A**, the MOCA must first be melted at 230-248°F (110 - 120°C) prior to mixing and the Eracure 300 processed at room temperature. 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 176-212°F (80 - 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 ET95A 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.