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Erapol E95A

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol E95A is a liquid isocyanate terminated prepolymer based on PTMEG polyether polyol.

Polymers made from **Erapol E95A** exhibit outstanding abrasion, impact and chemical resistance, along with high load bearing capacity.

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)	1.07
Viscosity at 176°F (80°C) (cps)	300 - 700
Colour	Clear, light amber

Mixing and Curing Conditions

		E95A / MOCA	E95A / Eracure 300
Erapol E95A	(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)	6	4
Demould Time at 212°F (100°C)	(hrs)	1	1
Post Cure Time at 212°F (100°C)	(hrs)	16	16



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Physical Properties

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

		E95A / MOCA	E95A / Eracure 300	TEST METHOD
Hardness	(Shore A)	95	93	ASTM D2240
Tensile Strength	psi (MPa)	6527 (45.0)	6193 (42.7)	ASTM D412
100% Modulus	psi (MPa)	2074 (14.3)	1595 (11.0)	ASTM D412
300% Modulus	psi (MPa)	4931 (34)	3800 (26.2)	ASTM D412
Elongation	(%)	390	420	ASTM D412
Angle Tear Strength, Die C	pli (kN/m)	514 (90)	628 (110)	ASTM D624
Split Tear Strength	pli (kN/m)	240 (42)	217 (38)	AS1683.12
DIN Resilience	(%)	40	46	DIN 53512
DIN Abrasion Resistance 10N	(mm ³)	70	68	ASTM D5963
Compression Set / 22hrs at 158°F	(%)	35	38	ASTM D395
Cured Specific Gravity	(g/cm ³)	1.13	1.11	ASTM D1817

Processing Procedure

1. **Erapol E95A** 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 **E95A**, 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 is at best marginal if a primer is not used. Please consult Era Polymers for specific recommendations to improve adhesion.

Handling Precautions

Erapol E95A 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.