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AUSTRALIA
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Erapol L-E95A

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol L-E95A is a liquid isocyanate terminated pre-polymer based on PTMEG polyether polyol.

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

Moreover, **Erapol L-E95A** has a lower free TDI content compared to conventional grades.

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

Product Specification

% NCO	6.00 ± 0.20
Specific Gravity at 77°F (25°C)	1.07
Viscosity at 176°F (80°C) (cps)	300 – 700
Color	Clear, light amber

Mixing and Curing Conditions

		L-E95A / MOCA	L-E95A / E300*	L-E95A / E110**	L-E95A / AH41
Erapol L-E95A	(pph)	100	100	100	100
MOCA Level	(pph)	18.1	–	–	–
Eracure 300 Level	(pph)	–	14.5	–	–
Eracure 110 Level	(pph)	–	–	15.5	–
AH41 Level	(pph)	–	–	–	15.6
Recommended % Theory		95	95	95	95
Erapol Temperature	°F (°C)	167 – 185 (75 – 85)	149 – 167 (65 – 75)	149 – 167 (65 – 75)	149 – 167 (65 – 75)
Curative Temperature	°F (°C)	230 – 248 (110 – 120)	68 – 86 (20 – 30)	68 – 86 (20 – 30)	68 – 86 (20 – 30)
Pot Life	(mins)	6 – 10	4 – 8	6 – 7	30 – 40 sec
Demold Time at 212°F (100°C)	(mins)	30 – 60	30 – 60	45 – 60	10 – 15
Post Cure Time at 212°F (100°C)	(hrs)	16	16	16	16

*Eracure 300; **Eracure 110

Physical Properties

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

		L-E95A / MOCA	L-E95A / E300*	L-E95A / E110**	L-E95A / AH41	TEST METHOD
Hardness	(Shore A)	95	93	93	89	ASTM D2240
Tensile Strength	psi (MPa)	5221 (36)	5076 (35)	4859 (33.5)	4409 (30.4)	ASTM D412
100% Modulus	psi (MPa)	1813 (12.5)	1610 (11.1)	1465 (10.1)	1189 (8.2)	ASTM D412
300% Modulus	psi (MPa)	2959 (20.4)	2698 (18.6)	2843 (19.6)	1827 (12.6)	ASTM D412
Elongation	(%)	490	530	520	595	ASTM D412
Tear Strength, Die C	pli (kN/m)	639.5 (112)	617 (108)	617 (108)	548 (96)	ASTM D624
DIN Resilience	(%)	42	44	49	55	DIN 53512
DIN Abrasion Resistance 10N	(mm^3)	54	51	38	72	ASTM D5963
Compression Set / 22hrs at 158°F	(%)	37	–	–	–	ASTM D395, B
Cured Specific Gravity	(g/cm^3)	1.12	1.12	1.11	1.08	ASTM D1817

*Eracure 300; **Eracure 110

Processing Procedure

1. **Erapol L-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 **L-E95A**. MOCA must first be melted prior to mixing at 230–248°F (110–120°C). Eracure 300, Eracure 110 and AH41 are processed at room temperature. After adding the curative, mix thoroughly while being careful not to introduce air into the mixture.
3. Pour mixed materials into molds, 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 L-E95A contains small amounts of free TDI. Therefore the product should be used in well-ventilated areas. Avoid breathing in vapors 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 vapors, remove exposed person to fresh air. Call a physician.