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Erapol L-E60D

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol L-E60D is a high performance liquid isocyanate terminated prepolymer based on PTMEG polyether polyol.

Polymers made from **Erapol L-E60D** exhibit high impact strength coupled with excellent abrasion, hydrolysis resistance and chemical resistance as well as high load bearing capacity.

Additionally, **Erapol L-E60D** is a lower free TDI version of Erapol ET60D.

Application

Typical uses for this polymer include forklift truck tyres, rolls, gears etc.

Product Specification

% NCO	7.40 ± 0.20
Specific Gravity at 25°C	1.06
Viscosity at 80°C (cps)	300 - 700
Colour	Clear, light amber

Mixing and Curing Conditions

		L-E60D / MOCA	L-E60D / Ethacure 300
Erapol L-E60D	(pph)	100	100
MOCA Level	(pph)	21	-
Ethacure 300 Level	(pph)	-	17
Recommended % Theory		90	90
Erapol Temperature	(°C)	60 - 65	55 - 60
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	5 - 6	4 - 5
Demould Time at 110°C	(hrs)	1	1
Post Cure Time at 110°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.

		L-E60D/MOCA	L-E60D/Ethacure 300	TEST METHOD
Hardness	(Shore D)	60 ± 3	60 ± 3	AS1683.15
Tensile Strength	MPa (psi)	45 (6527)	45 (6570)	AS1683.11
100% Modulus	MPa (psi)	19.9 (2886)	18.2 (2640)	AS1683.11
300% Modulus	MPa (psi)	42.4 (6150)	38.4 (5569)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	110	101	AS1683.12
Elongation	(%)	300	350	AS1683.11
DIN Resilience	(%)	46	46	DIN53512
Trouser Tear Strength	(kN/m)	46	41	AS1683.21
DIN Abrasion Resistance	(mm ³)	63	73	AS1683.21
Cured Specific Gravity	(g/cm ³)	1.16	1.13	AS1683.4

Processing Procedure

1. **Erapol L-E60D** should be heated to the recommended processing temperature and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops.
2. MOCA and Ethacure 300 should be added to **L-E60D**, the MOCA must first be melted at 110 - 120°C prior to mixing and Ethacure 300 at room temperature. After adding MOCA, mix thoroughly being careful not to introduce air into the mixture.
3. Pour mixed materials into moulds that have been preheated to 100 - 110°C and pre-coated with release agent.

NOTE: If curing temperature is less than 100 - 110°C the polymer may have a glassiness/brittle appearance.

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 L-E60D 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.