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Erapol XLE75D

POLYETHER (PTMEG) TDI PREPOLYMER –
LOW FREE TDI CONTENT

TECHNICAL DATASHEET

Erapol XLE75D is a new generation of liquid isocyanate terminated pre-polymer based on 100% PTMEG polyether polyol with low viscosity and extremely low free isocyanate content (less than 0.1%).

Polymers made from **Erapol XLE75D** exhibit outstanding abrasion, impact and chemical resistance, along with high load bearing capacity and low heat build-up in dynamic applications.

Application

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

Product Specification

% NCO	9.30 ± 0.20
Specific Gravity at 25°C (g/cm ³)	1.13
Viscosity at 80°C (cps)	200 - 500
Colour	Clear, light amber

Mixing and Curing Conditions

		XLE75D / MOCA	XLE75D / Ethacure 300
Erapol XLE75D	(pph)	100	100
MOCA Level	(pph)	28.1	-
Ethacure 300 Level	(pph)	-	22.5
Recommended % Theory		95	95
Erapol Temperature	(°C)	60 - 70	60 - 70
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	2 - 3	2 - 3
Demould Time at 100°C	(mins)	30	20
Post Cure Time at 100°C	(hrs)	16	16



This information is of general nature and is supplied without recommendation of guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Era Polymers cannot accept liability for loss or damage through use. Whilst these technical details are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are supplied. Users must, by comprehensive testing, evaluate this product in their own application.

Physical Properties

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

		XLE75D/MOCA	XLE75D/Ethacure 300	TEST METHOD
Hardness	(Shore D)	75	72 ± 3	AS1683.15
Tensile Strength	MPa (psi)	51.2 (7426)	46.9 (6802)	AS1683.11
100% Modulus	MPa (psi)	44.8 (6498)	39.3 (5700)	AS1683.11
200% Modulus	MPa (psi)	50.4 (7310)	46.7 (6773)	AS1683.11
Elongation	(%)	220	200	AS1683.11
Angle Tear Strength, Die C	kN/m (pli)	185 (1056)	143 (817)	AS1683.12
DIN Resilience	(%)	55	45	DIN 53512
DIN Abrasion Resistance 10N	(mm ³)	97	109	AS1683.21
Cured Specific Gravity	(g/cm ³)	1.20	1.17	AS1683.4

Processing Procedure

1. **Erapol XLE75D** should be heated to 65 ± 5°C and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops.
2. The curative should be added to **XLE75D**, the MOCA must first be melted at 110 – 120°C and Ethacure 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 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

Consult the product's material safety data sheet (MSDS) for specific hazard and handling information before use.

Erapol XLE75D 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.



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