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Erapol L-ETX80D

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol L-ETX80D is a liquid isocyanate terminated pre-polymer based on the high performance PTMEG polyether polyol.

When reacted with MOCA the product produces a polyether elastomer with a hardness of **80 Shore D**, but has been designed to have a long pot life.

Polymers made from **Erapol L-ETX80D** exhibit high impact strength coupled with outstanding abrasion and chemical resistance as well as high load bearing capacity.

Additionally, **Erapol L-ETX80D** is a lower free TDI version of Erapol ETX80D.

Application

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

Product Specification

% NCO	9.50 ± 0.30
Specific Gravity at 77°F (25°C)	1.10
Viscosity at 176°F (80°C) (cps)	300 - 800
Colour	Clear, light amber

Mixing and Curing Conditions

		L-ETX80D / MOCA	L-ETX80D / Eracure 300
Erapol L-ETX80D	(pph)	100	100
MOCA Level	(pph)	26.0	-
Eracure 300 Level	(pph)	-	21.0
Recommended % Theory		85	85
Erapol Temperature	°F (°C)	140 – 149 (60 – 65)	131 – 149 (55 – 65)
Curative Temperature	°F (°C)	230 – 248 (110 – 120)	77 (25)
Pot Life	(mins)	5 - 7	5 - 7
Demould Time at 212°F (110°C)	(mins)	30 - 60	30 - 60
Post Cure Time at 212°F (110°C)	(hrs)	24	24



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.

		L-ETX80D / MOCA	L-ETX80D/Eracure 300
Hardness	(Shore D)	78	76
Tensile Strength	psi (MPa)	9094 (63)	7542 (52)
100% Modulus	psi (MPa)	6817 (47)	7484 (51.6)
200% Modulus	psi (MPa)	8702 (60)	-
Elongation	(%)	210	105
DIN Resilience	(%)	38	51
DIN Abrasion Resistance 10N	(mm ³)	94	100
Cured Specific Gravity	(g/cm ³)	1.180	1.174

Processing Procedure

1. **Erapol L-ETX80D** should be heated to the recommended processing temperature and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops.
2. The curative should be added to **L-ETX80D**, the MOCA must first be melted at 230-248°F (110 - 120°C) and Eracure 300 at 77°F (25°C) prior to mixing. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.
3. Pour mixed materials into moulds that have been preheated to 212°F (100°C) and pre-coated with release agent.

NOTE: If post cure temperature is less than 100°C, the polymer may have a glassiness/brittle appearance. The post cure time should be adhered.

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-ETX80D 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.