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Erapol EHP70D

POLYETHER (PTMEG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol EHP70D is a liquid isocyanate terminated pre-polymer based on PTMEG polyether polyol. When cured with MOCA it produces a **70 Shore D** elastomer. The polyurethanes elastomer exhibits superior mechanical properties.

Polymers made from **Erapol EHP70D** exhibit outstanding abrasion, impact and chemical resistance, along with high load bearing capacity.

Application

Typical uses for this polymer include caster and forklift wheels, screens, cyclones and many other end use applications.

Product Specification

% NCO	9.00 ± 0.25
Specific Gravity @ 25°C	1.11
Viscosity @ 80°C (cps)	400 - 800
Colour	Clear, light amber

Mixing and Curing Conditions

		EHP70D / MOCA	EHP70D / Ethacure 300
Erapol EHP70D	(pph)	100	100
MOCA Level	(pph)	27.2	-
Ethacure 300 Level	(pph)	-	22.0
Recommended % Theory		95	95
Erapol Temperature	(°C)	60 - 70	55 - 65
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	2	1 - 2
Demould Time @ 100°C	(hrs)	< 1	< 1
Post Cure Time @ 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.

		EHP70D / MOCA	TEST METHOD
Hardness	(Shore D)	70 ± 3	AS1683.15
Tensile Strength	MPa (psi)	50.0 (7252)	AS1683.11
100% Modulus	MPa (psi)	25.0 (3626)	AS1683.11
300% Modulus	MPa (psi)	44.6 (6469)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	192	AS1683.12
Elongation	(%)	245	AS1683.11
DIN Resilience	(%)	33	DIN53512
DIN Abrasion Resistance 10N	(mm ³)	68	AS1683.21
DIN Abrasion Resistance 5N	(mm ³)	22	AS1683.21
Compression Set / 22 hr @ 70°C	(%)	-	AS1683.13
Cured Specific Gravity	(g/cm ³)	1.15	AS1683.4

Processing Procedure

1. **Erapol EHP70D** should be heated to the recommended processing temperature and thoroughly degassed at 1 - 5 mm Hg of vacuum until excessive foaming stops.
2. The curative should be added to **EHP70D**, the MOCA must first be melted at 110 - 120°C prior to mixing and Ethacure 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 that have been preheated to 100 - 110°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 EHP70D 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.