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Erapol L-ETL85A

POLYETHER (PPG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol L-ETL85A is a liquid isocyanate terminated prepolymer based on PPG polyol. Having a PPG backbone means that this polymer is considerably cheaper than polymers made from PTMEG.

Additionally **L-ETL85A** can be blended with premium grade compounds to product formulations to intermediate performance/cost.

Moreover, **Erapol L-ETL85A** has a lower free TDI content compared to conventional grades.

Application

Generally used in applications where the outstanding properties of PTMEG based materials are not needed.

Product Specification

% NCO	4.20 ± 0.20
Specific Gravity at 25°C	1.07
Viscosity at 80°C (cps)	300 - 700
Colour	Amber

Mixing and Curing Conditions

		L-ETL85A / MOCA	L-ETL85A / Ethacure 300
Erapol L-ETL85A	(pph)	100	100
MOCA Level	(pph)	12.5	-
Ethacure 300 Level	(pph)	-	10.0
Recommended % Theory		95	95
Erapol Temperature	(°C)	75 - 85	60 - 70
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	10	8
Demould Time at 100°C	(hrs)	2	2
Post Cure Time at 100°C	(hrs)	16	16

Physical Properties

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

		L-ETL85A / MOCA	L-ETL85A / Ethacure 300	TEST METHOD
Hardness	(Shore A)	85 ± 3	85 ± 3	AS1683.15
Tensile Strength	MPa (psi)	28 (4061)	12.4 (1798)	AS1683.11
100% Modulus	MPa (psi)	5.3 (769)	4.1 (595)	AS1683.11
300% Modulus	MPa (psi)	11.0 (1595)	7.6 (1102)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	70	70	AS1683.12
Trouser Tear Strength	(kN/m)	30	-	AS1683.12
Elongation	(%)	525	400	AS1683.11
DIN Resilience	(%)	-	-	DIN53512
DIN Abrasion Resistance 10N	(mm^3)	140	-	AS1683.21
DIN Abrasion Resistance 5N	(mm^3)	49	42	AS1683.21
Compression Set / 22 hr at 70°C	(%)	45	60	AS1683.13
Cured Specific Gravity	(g/cm^3)	1.11	1.10	AS1683.4

Processing Procedure

1. **Erapol L-ETL85A** 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-ETL85A**, the MOCA must first be melted at 110 - 120°C prior to mixing 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 that have been preheated to 80 - 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

Erapol L-ETL85A 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.