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AUSTRALIA
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Erapol L-ETL94A

POLYETHER (PPG) TDI PREPOLYMER

TECHNICAL DATASHEET

Erapol L-ETL94A is a liquid isocyanate terminated prepolymer based on PPG polyol.

Erapol L-ETL94A can be blended with premium grade compounds to produce formulations of intermediate performance/cost.

Additionaly, **Erapol L-ETL94A** is a lower free TDI version of Erapol ETL94A.

Application

Having a PPG backbone means that this prepolymer is considerably cheaper than polymers made from PTMEG. It finds applications in those areas where the outstanding properties of PTMEG based materials are not needed.

Product Specification

% NCO	6.25 ± 0.25
Specific Gravity at 25°C	1.08
Viscosity at 80°C (cps)	150 - 500
Colour	Amber

Mixing and Curing Conditions

		L-ETL94A / MOCA	L-ETL94A / Ethacure 300
Erapol L-ETL94A	(pph)	100	100
MOCA Level	(pph)	19	-
Ethacure 300 Level	(pph)	-	15
Recommended % Theory		95	95
Erapol Temperature	(°C)	75 - 85	60 - 70
Curative Temperature	(°C)	110 - 120	20 - 30
Pot Life	(mins)	4 - 6	4 - 6
Demould Time at 100°C	(hrs)	1	1
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-ETL94A / MOCA	L-ETL94A / Ethacure 300	TEST METHOD
Hardness	(Shore A)	95 ± 3	95 ± 3	AS1683.15
Tensile Strength	MPa (psi)	34 (4931)	29 (4206)	AS1683.11
100% Modulus	MPa (psi)	11.2 (1624)	10.6 (1537)	AS1683.11
300% Modulus	MPa (psi)	21.8 (3162)	14.5 (2103)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	90	80	AS1683.12
Trouser Tear Strength	(kN/m)	39	40	AS1683.12
Elongation	(%)	460	520	AS1683.11
DIN Resilience	(%)	32	36	DIN 53512
DIN Abrasion Resistance 10N	(mm^3)	119	123	AS1683.21
DIN Abrasion Resistance 5N	(mm^3)	43	65	AS1683.21
Cured Specific Gravity	(g/cm^3)	1.14	1.13	AS1683.4

Processing Procedure

1. **Erapol L-ETL94A** should be heated to the recommended processing temperature and thoroughly degassed at -95 kpa of vacuum until excessive foaming stops.

2. The curative should then be added to the **Erapol L-ETL94A**. MOCA must first be melted at 110 - 120°C; Ethacure 300 can be used at room temperature. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.

3. Pour the mixed material into moulds that have been pre-heated to 80 - 100°C and precoated with release agent.

Adhesion

Adhesion of Erapol based elastomers to various substrates it at best marginal if a primer is not used. Please consult Era Polymers for specific recommendations to improve adhesion.

Handling Precautions

Erapol L-ETL94A 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.