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## Erapol L-RN71A

HIGH PERFORMANCE POLYESTER POLYURETHANE

### TECHNICAL DATASHEET

**Erapol L-RN71A** is an isocyanate-terminated polyester based urethane prepolymer. It is formulated for use with MOCA curative.

#### Application

**Erapol L-RN71A** elastomers provide properties generally not available with rubbers, plastics or metals. They show improved solvent and oil resistance and better thermal stability than most general-purpose rubbers and plastics. Other outstanding properties include high abrasion and tear resistance, excellent load-bearing capacity, toughness and resiliency.

#### Product Specification

Colour	Clear, light amber
% NCO	2.25 – 2.75
Viscosity at 80°C (176°F) (cps)	1700 - 2500

#### Mixing and Curing Conditions

		L-RN71A
Erapol L-RN71A	(pph)	100
MOCA level	(pph)	8.3
Recommended % Theory		102
Erapol Temperature	°C (°F)	80 (176)
Curative Temperature	°C (°F)	100-110 (212-230)
Pot Life *	(mins)	4 - 6
Demould Time at 100°C (212°F) ** (mins)		45
Post Cure Time at 100°C (212°F)	(hrs)	16

\* Pot life based on a 200g sample, prepolymer at 80°C, MOCA at 100°C.

\*\* Demould time based on a 200g rectangular slab. Demould time will depend on the size and shape of the cast part, the mould temperature and the curing temperature.



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-RN71A	TEST METHOD
<b>Hardness</b>	(Shore A)	70	ASTM D2240
<b>Tensile Strength</b>	psi (MPa)	4641 (32)	ASTM D412
<b>100% Modulus</b>	psi (MPa)	319 (2.2)	ASTM D412
<b>300% Modulus</b>	psi (MPa)	450 (3.1)	ASTM D412
<b>Elongation</b>	(%)	560	ASTM D412
<b>Angle Tear Strength, Die C</b>	pli (kN/m)	388.3 (68)	ASTM D624
<b>Split Tear Strength</b>	pli (kN/m)	188.4 (33)	AS1683.12
<b>DIN Resilience</b>	(%)	42	DIN 53512
<b>DIN Abrasion Resistance 10N</b>	(mm <sup>3</sup> )	75	ASTM D5963
<b>Cured Specific Gravity</b>	(g/cm <sup>3</sup> )	1.25	ASTM D1817

## Processing Procedure

1. Heat pre-weighed amounts of **Erapol L-RN71A** to 176°F (80°C) and degas at -95Kpa of vacuum until excessive bubbling stops. Containers should be unlined metal, plastic or glass and should be large enough to allow for foaming during degassing.
2. MOCA must be melted at 230°F (110°C) prior to mixing. After adding curative, mix thoroughly and degas at -95Kpa for 1 to 2 minutes.
3. Pour mixed system into moulds, preheated to 212°F (100°C), which have been coated with **Sallease** mould release or equivalent.
4. Cure in accordance with above recommendations.

## 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 L-RN71A** 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.

If nose, throat or lungs become irritated from breathing in vapours, remove exposed person to fresh air. Call a physician.