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AUSTRALIA
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Erapol 1K80A

SINGLE COMPONENT BLOCKED POLYESTER
POLYURETHANE

TECHNICAL DATASHEET

Erapol 1K80A is a single component blocked polyester based polyurethane that will cure with heat.

Some of the advantages include, only one single component and hence no mixing required.

Product Specification

Viscosity at 75°C (cps)	2900
Colour	Amber to water clear

Special features

1. The ease of air bubbles self-releasing in the curing process.
2. The isocyanate is chemically bonded and hence there are no volatiles or fumes. An added advantage for people working with **1K80A**.
3. Very easy processing, heat the blocked isocyanate and pour into the mould.
4. Little wastage of the material and hence very economical.

Physical Properties

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

		1K80A	TEST METHOD
Hardness	(Shore A)	80 ± 5	AS1683.15
Tensile Strength	(MPa)	18	AS1683.11
Angle Tear Strength, Die C	(kN/m)	53	AS1683.12
Trouser Tear Strength	(kN/m)	16	AS1683.12
Elongation	(%)	575	AS1683.11
DIN Resilience	(%)	40	DIN 53512
Cured Specific Gravity	(g/cm ³)	1.21	AS1683.4



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.

Processing Procedure

1. Melt the **1K80A** to 50 – 75°C. DO NOT HEAT MORE THAN 90°C, as the **1K80A** will start to unblock and start to cure.
2. Release the mould with a suitable release agent (check with Era Polymers).
3. Preheat moulds to 130 – 140°C. Moulds must reach this temperature before pouring the **1K80A** into the mould. It is recommended to use only metal moulds as the heat is transferred more efficiently through into the blocked polyurethane. It is also recommended to use a closed mould as an open mould will result in the exposed surface of the polyurethane oxidising and increasing a couple of points in hardness compared to the bulk of the polyurethane being cured.
4. Cure the **1K80A** for 16-18 hours at 135-140°C.

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 1K80A 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.