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## Erapol CMD93A

COLD CAST POLYETHER / MDI POLYURETHANE

### TECHNICAL DATASHEET

**Erapol CMD93A** has been designed as a MDI polyether two-pack polyurethane system that will cure at room temperature. The composition of this elastomeric system produces a material with exceptional toughness, wear resistance, and tear strength. It has the added advantage of being MDI based and is therefore less toxic than traditional TDI based systems.

### Application

This material is well suited for dispensing through suitable polyurethane casting machines. **Erapol CMD93A** has been designed for linings for surfaces that require excellent wear resistance.

### Product Specification

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
% NCO	16.3 – 16.7	-
Specific Gravity at 25°C	1.10 – 1.16	0.99 – 1.05
Viscosity at 25°C (cps)	2000 - 2500	200 - 400
Appearance	Clear to White liquid	White liquid

### Mixing and Curing Conditions

Isocyanate Prepolymer (A)	(pbw)	100
Polyol Curative (B)	(pbw)	42.1
Recommended % Theory		102
Erapol Temperature	(°C)	25 - 40
Curative Temperature	(°C)	25 - 40
Pot Life at 25°C	(mins)	6 - 9
Demould Time at 60°C	(hours)	2
Cure at 60°C	(hours)	16

The above results are based on 200 gram hand mixed sample.



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## Physical Properties

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

		CMD93A	TEST METHOD
Hardness	(Shore A)	93 ± 3	AS1683.15
Tensile Strength	MPa (psi)	27 (3916)	AS1683.11
100% Modulus	MPa(psi)	14.3 (2074)	AS1683.11
200% Modulus	MPa(psi)	16.9 (2451)	AS1683.11
300% Modulus	MPa(psi)	19.7 (2857)	AS1683.11
Angle Tear Strength, Die C	(kN/m)	137	AS1683.12
Trouser Tear Strength	(kN/m)	50	AS1683.12
Elongation	(%)	410	AS1683.11
DIN Resilience	(%)	37	DIN 53512
DIN Abrasion Resistance 10N	(mm <sup>3</sup> )	48	AS1683.21

## Processing Procedure

1. Weigh the amount of Part A into a container and degas at 1-5 mmHg of vacuum until excessive foaming stops.
2. Part B should be added to Part A and mixed thoroughly. Be careful not to entrap air whilst mixing. (If required degas mixed components @ 1-5 mm of vacuum)
3. Pour the mixed materials into moulds that have been prepared with release agent.
4. Allow casting to cure @ 45 - 60°C before demoulding.

**NOTE:** PART B must be completely stirred mechanically before use.

## Shelf Life

The shelf life of the material is 12 months from the date of manufacture.

## Handling Precautions

**Erapol CMD93A** should be used in well-ventilated areas. Avoid breathing in vapours and protect skin and eyes from direct 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.