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## Erapol CC50A

COLD CASTABLE URETHANE ELASTOMER

### TECHNICAL DATASHEET

**Erapol CC50A** is a cold castable polyurethane 50 Shore A elastomer. The product is free from MOCA (methylene bis-ortho chloroaniline) and flammable solvents that produces an elastomer with outstanding toughness, high elongation and abrasion resistance. It offers advantages in that it can be readily processed and cured at room or elevated temperatures. The convenient mix ratio and low viscosity allow for easy processing.

**Erapol CC50A** is not UV stable.

### Application

Typical applications and uses include: flexible moulds for concrete panels and stamp pads, cast in place liners, washers, gaskets, vibration and sound dampening pads.

### Product Specifications

|                          | ISOCYANATE PREPOLYMER (A) | POLYOL CURATIVE (B) |
|--------------------------|---------------------------|---------------------|
| Specific Gravity at 25°C | 1.06                      | 1.15                |
| Viscosity at 25°C (cps)  | 10,300 – 10,700           | 100 - 140           |
| Appearance               | Clear                     | Clear, Light Amber  |

### Mixing and Curing Conditions

|                            |   |         |
|----------------------------|---|---------|
| Isocyanate Prepolymer (A)  | (pbw)   | 100     |
| Polyol Curative (B)        | (pbw)   | 100     |
| Prepolymer (A) Temperature | (°C)  | 25 – 30 |
| Curative (B) Temperature   | (°C)  | 25 – 30 |
| Mix time                   | (mins)  | 2 - 3   |
| Mixed Viscosity at 25°C    | (cps)   | 3300    |
| Working Life at 25°C       | (mins)  | 10      |
| Recommended Cure Time      | At 25°C for 24 hours, results in 80% cure. Fully cured at 80°C after 16 hrs |         |



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## Physical Properties

|   |                      | CC50A  | TEST METHOD |
|---|----------------------|--------|-------------|
| Hardness  | (Shore A)            | 50 ± 3 | AS1683.15   |
| Tensile Strength  | (MPa)                | 15     | AS1683.11   |
| Elongation  | (%)                  | 650    | AS1683.11   |
| Rebound Resilience  | (%)                  | 55     | DIN 53512   |
| Abrasion Resistance   | (mm <sup>3</sup> )   | 120    | AS1683.21   |
| Cured Specific Gravity  | (g/cm <sup>3</sup> ) | 1.10   | AS1683.4    |
| Linear Shrinkage at 23°C<br>(500mm length x 46mm width x 16 mm thick) | (%)                  | 0.2    |             |

NOTE: Below 15°C the Part A will appear as a white wax like substance. The Part A can be melted by heating at 60-70°C for several hours (Do not exceed 70°C).

Care should be exercised in keeping moisture away from the Prepolymer.

The POLYOL CURATIVE (B) must be thoroughly MIXED before decanting.

## Processing Procedure

1. The Part B must be thoroughly mixed before decanting.
2. Carefully weigh the correct proportions of the two components together in one container, mix thoroughly. Be careful not to entrap air whilst mixing.
3. Pour the mixed material into moulds that have been pre-coated with release agent, being careful to avoid trapping air.
4. Allow casting to cure before demoulding.

## 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 CC50A** Part A 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.



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