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## Erapol CC60D

HIGH PERFORMANCE COLD CASTABLE URETHANE  
ELASTOMER

### TECHNICAL DATASHEET

**Erapol CC60D** is a premium grade cold castable polyurethane elastomer. The product is free from MOCA (methylene-bis-ortho-chloroaniline) and flammable solvents, which produces an elastomer with outstanding toughness, high elongation, and excellent tear strength and abrasion resistance.

It offers advantages in that it can be readily processed and cured at room or elevated temperatures.

### Application

Applications and uses include: moulds, drop hammer faces, metal forming pads, core box liners and foundry patterns.

### Product Specifications

|                          | ISOCYANATE PREPOLYMER (A) | POLYOL CURATIVE (B) |
|--------------------------|---------------------------|---------------------|
| Specific Gravity at 25°C | 1.06                      | 1.2                 |
| Viscosity at 25°C (cps)  | 10,300 – 10,700           | 400 - 440           |
| Appearance               | Clear, Light Amber        | Clear, Light Green  |

### Mixing and Curing Conditions

|                            |  |         |
|----------------------------|--|---------|
| Isocyanate Prepolymer (A)  | (pbw)  | 100     |
| Polyol Curative (B)        | (pbw)  | 16.5    |
| Prepolymer (A) Temperature | (°C)   | 25 – 30 |
| Curative (B) Temperature   | (°C)   | 25 – 30 |
| Mix time                   | (mins)   | 2 - 3   |
| Mixed Viscosity at 25°C    | (cps)  | 4500    |
| Pot Life at 25°C           | (mins)   | 6 - 7   |
| Demould time at 25°C       | (hrs)  | 6 - 8   |
| Demould time at 70°C       | (hrs)  | 2       |
| Recommended Cure Time      | 24 hours at 25°C will result in an 80% cure. Fully cured at 7 days at 20°C or a post cure for 4-6 hours at 70°C. |         |



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## Physical Properties

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

|  |                      | CC60D  | TEST METHOD |
|--|----------------------|--------|-------------|
| <b>Hardness</b>  | (Shore D)            | 60 ± 3 | AS1683.15   |
| <b>Tensile Strength</b>  | (MPa)                | 50     | AS1683.11   |
| <b>Elongation</b>  | (%)                  | 250    | AS1683.11   |
| <b>Rebound Resilience</b>  | (%)                  | 35     | DIN 53512   |
| <b>Abrasion Resistance</b>   | (mm <sup>3</sup> )   | 96     | AS1683.21   |
| <b>Cured Specific Gravity</b>  | (g/cm <sup>3</sup> ) | 1.10   | AS1683.4    |
| <b>Linear Shrinkage at 23°C</b><br>(500mm length x 46mm width x 16 mm thick) | (%)                  | 0.2    |             |

NOTE: Both Part A and B components are moisture sensitive. Once opened, containers should be purged with nitrogen, if they are to be stored for a period of time.

Below 15°C Part A will appear as a white wax like substance. The Part A can be melted by placing the can in a bath of hot water for 15-30 minutes. Care should be exercised in keeping moisture away from the Part A.

## Processing Procedure

1. Carefully weigh the correct proportions of the two components together in one container, mix thoroughly. Be careful not to entrap air whilst mixing.
2. Pour the mixed material into moulds that have been prepared with release agent, being careful to avoid trapping air.
3. Allow casting to cure sufficiently 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 CC60D** 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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