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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.

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 @ 25°C	1.07	1.15
Viscosity @ 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 @ 25°C	(cps)	3300
Working Life @ 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	



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

		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 ³)	120	AS1683.21
Cured Specific Gravity	(g/cm ³)	1.10	AS1683.4
Linear Shrinkage @ 23°C (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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