



Era Polymers Pty. Ltd.
2-4 Green Street, Banksmeadow
Sydney, NSW 2019
AUSTRALIA
www.erapol.com.au

Erapol CC90A

HIGH PERFORMANCE COLD CASTABLE URETHANE
ELASTOMER

TECHNICAL DATASHEET

Erapol CC90A is a premium grade cold castable polyurethane elastomer. The product is free from MOCA (methylene-bis-ortho-chloroaniline) and flammable solvents that produce 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. The convenient mix ratio and low viscosity allow easy processing.

Application

Applications and uses include: Flexible moulds for concrete and concrete stamp pads, cast in place liners, drop hammer faces, impellers.

Product Specifications

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
Specific Gravity at 25°C	1.06	1.26
Viscosity at 25°C (cps)	10,300 – 10,700	220 - 260
Appearance	Clear, Light Amber	Clear, Light Green

Mixing and Curing Conditions

Isocyanate Prepolymer (A)	(pbw)	100
Polyol Curative (B)	(pbw)	50
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)	15
Recommended Cure Time	24 hrs at 25°C will result in an 80% cure. Fully cured at 7 days at 20° C or a post cure for 3 – 4 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.

		CC90A	TEST METHOD
Hardness	(Shore A)	90 ± 5	AS1683.15
Tensile Strength	(MPa)	26	AS1683.11
Elongation	(%)	500	AS1683.11
Angle Tear Strength, Die C	(kN/m)	86.1	AS1683.12
Trouser Tear Strength	(kN/m)	45.3	AS1683.12
Abrasion Resistance	(mm ³)	75	AS1683.21
Rebound Resilience	(%)	40	DIN 53512
Cured Specific Gravity	(g/cm ³)	1.10	AS1683.4

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. Placing the can in a bath of hot water for 15-30 minutes can melt the Part A. 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 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 CC90A 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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