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Erapol CCM65D

MEDIUM PERFORMANCE POLYETHER BASED
POLYURETHANE ELASTOMER

TECHNICAL DATASHEET

Erapol CCM65D is a liquid isocyanate terminated prepolymer based on medium performance polyether polyols. It is a cold castable polyurethane elastomer. The product is free from MOCA (methylene-bis-ortho-chloroaniline) and flammable solvents, which produce an elastomer with good toughness, high elongation, tear strength and abrasion resistance.

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

Product Specifications

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
Specific Gravity at 25°C	1.08	1.2
Viscosity at 80°C (cps)	250 – 650	400 – 440
% NCO	7.8 – 8.2	-

Mixing and Curing Conditions

Isocyanate Prepolymer (A)	(pbw)	100
Polyol Curative (B)	(pbw)	18.5
Prepolymer (A) Temperature	(°C)	20 – 30 (may be processed up to 60°C)
Curative (B) Temperature	(°C)	20 – 30
Pot Life at 25°C	(mins)	5 - 8
Cure at 25°C		24 hours will result in an 80% cure. Fully cured after 7 days. (Cure temperature may be increased to 80°C where full cure is reached after 8 hours.)

* Based on a 200 grams sample



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

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

		CCM65D	TEST METHOD
Hardness	(Shore D)	65 ± 5	AS1683.15
Tensile Strength	(MPa)	37	AS1683.11
100% Modulus	MPa (psi)	14	AS1683.11
200% Modulus	MPa (psi)	-	AS1683.11
300% Modulus	MPa (psi)	-	AS1683.11
Angle Tear Strength, Die C	(kN/m)	110	AS1683.12
Trouser Tear Strength	(kN/m)	-	AS1683.12
Elongation	(%)	300	AS1683.11
Rebound Resilience	(%)	50	DIN 53512
Abrasion Resistance	(mm ³)	-	AS1683.21
Compression Set / 22 hr at 70°C	(%)	50	AS1683.13
Cured Specific Gravity	(g/cm ³)	1.10	AS1683.4

Erapol CCM65D can be mixed by hand or readily processed through suitable polyurethane dispensing equipment.

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.

Processing Procedure

1. **Erapol CCM65D** Part A should be heated to 30°C (the temperature may be increased to a maximum of 80°C) and thoroughly degassed at -95 kPa of vacuum until excessive foaming stops.
2. The Part B (Curative) should be added to Part A (Prepolymer) and processed at room temperature. After adding the curative, mix thoroughly, being careful not to introduce air into the mixture.
3. Pour mixed **Erapol CCM65D** into moulds that have been precoated with Erarelease Classic (release agent).

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.

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Handling Precautions

Erapol CCM65D Part A contains a small amount 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.