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Erakote EKF Series

MDI POLYETHER ROTATIONAL PROCESSING SYSTEM

TECHNICAL DATASHEET

Erakote EKF is a fast reacting two component MDI/polyether based elastomer system.

Application

Erakote EKF has been designed to be applied as a rotational casting material specific for roll applications. The EKF series is available in 4 different hardness grades for 80–95 shore A.

Product Specification

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
Specific Gravity at 25°C	1.05	1.065
Viscosity at 40°C (cps)	-	500 - 1100
Viscosity at 80°C (cps)	1200 - 2000	-
Appearance	Milky white translucent liquid	Straw to amber coloured liquid

Mixing and Curing Conditions

		EKF80A	EKF85A	EKF90A	EKF95A
Isocyanate Prepolymer (A)	(pbw)	100	100	100	100
Polyol Curative (B)	(pbw)	41.5	35.5	27	20
Erapol Temperature	(°C)	65 – 70	65 – 70	65 – 70	65 – 70
Curative Temperature	(°C)	40	40	40	40
Pot Life at processing temperature	(secs)	8 – 10	8 – 10	12 – 16	6 – 9
Cure at 25°C	(hrs)	36 - 48	36 - 48	36 - 48	36 - 48



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.

		EKF80A	EKF85A	EKF90A	EKF95A	TEST METHOD
Hardness	(Shore A)	80 ± 3	85 ± 3	90 ± 3	95 ± 3	AS1683.15
Tensile Strength	(MPa)	17	29	36	32	AS1683.11
100% Modulus	(MPa)	4.8	4.5	9	9.7	AS1683.11
300% Modulus	(MPa)	9.1	11	18	19.3	AS1683.11
Angle Tear Strength, Die C	(kN/m)	55	69	87	86	AS1683.12
Trouser Tear Strength	(kN/m)	19	25	40	56	AS1683.12
Elongation	(%)	370	430	550	500	AS1683.11
DIN Resilience	(%)	62	47	46	57	DIN 53512
DIN Abrasion Resistance 10N	(mm ³)	52	33	39	47	AS1683.21
Cured Specific Gravity	(g/cm ³)	1.04	1.05	1.06	1.07	AS1683.4

NOTE: Both Prepolymer and Polyol 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. Optimum machine settings for **Erakote EKF** will vary dependant on roller diameter and thickness requirement.
2. Store the polyol curative (Part B) component in tightly sealed containers at a temperature of 20 - 30°C. Raise to the processing temperature and mechanically mix well before use. Avoid contact with moisture.
3. Store the prepolymer (Part A) component in tightly sealed containers at a temperature of 20 - 30°C. Avoid contact with moisture.
4. **EKF prepolymer** below 15°C will appear as a white wax like substance. The **EKF prepolymer** can be melted overnight by placing the drum or pail in a fan forced hot box at 70 – 80°C. Do not exceed a temperature of 80°C when melting out the **EKF prepolymer**.

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

Before using this product please consult the **Erakote EKF** Material Safety Data Sheet.

Erakote EKF 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.

If nose, throat or lungs become irritated from breathing in vapours, remove exposed person to fresh air. Call a physician.

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