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Eraspray ESM700

NON-SOLVENTED SPRAY POLYURETHANE

TECHNICAL DATASHEET

Eraspray ESM700 is a two component, spray-in-place, solvent free, and 100% solids polyurethane elastomer system.

The product has a fast reaction profile as it is formulated for spray application through plural component spray equipment.

The polyurethane spray system is based on unique chemistry for allowing a controlled build-up in hardness and maintaining a degree of flexibility. This product has been designed for softer more flexible polyurethane systems with lower hardness.

Application

The fast cure of the product allows a textured surface, multipurpose material for commercial and industrial applications where the benefits of polyurethane chemistry are required.

Product Specification

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
Specific Gravity at 25°C	1.15	1.01
Viscosity at 40°C (cps)	300	200
Appearance	Clear to straw coloured	Amber to hazy liquid

Mixing and Curing Conditions

Isocyanate Prepolymer (A)	(by volume)	100
Polyol Curative (B)	(by volume)	100
Isocyanate Prepolymer (A)	(pbw)	100
Polyol Curative (B)	(pbw)	109
Pot Life at 40°C (hand mix)	(seconds)	10 – 18



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.

		ESM700	TEST METHOD
Hardness	(Shore A)	70 ± 5	AS1683.15
Tensile Strength	(MPa)	7.2	AS1683.11
Angle Tear Strength, Die C	(kN/m)	32	AS1683.12
Trouser Tear Strength	(kN/m)	12	AS1683.12
Elongation	(%)	260	AS1683.11
DIN Abrasion Resistance 10N	(mm ³)	180	AS1683.21
Cured Specific Gravity	(g/cm ³)	1.02	AS1683.4
Colour		White/Pale yellow	-
Flexural Stress	(MPa)	12.1	-

Processing Procedure

1. Store in a dry location as urethane components are susceptible to moisture contamination.
2. In cold weather, the containers should be kept above 15°C to maintain them in liquid condition.
3. Precondition drums at 25-30°C and apply at 40-50°C at the gun.
4. **The polyol should be thoroughly mixed by mechanically means of using a stirrer inside the pail or drum first.** The polyol is a blend of different components and will need to be mixed before use.
5. Coating thickness of approximately 0.5-1 mm per pass is recommended. Several millimeters can be achieved very quickly by allowing 50-60 seconds cooling between passes. This product has been designed to spray in thicker sections up to 8-10 mm.

Adhesion

Adhesion of Eraspray elastomers to various substrates is at best marginal if a primer is not used. Please consult Era Polymers for specific recommendations to improve adhesion.

Surface Preparation

Substrates should be clean and dry. Any water on the substrate will react with the system when sprayed causing a less than satisfactory finish.

Equipment

Use only 1:1 mix ratio (by volume) in heated plural component spray equipment. Both low and high-pressure equipment can be used.

Cure Details

Curing rate of this product is dependant on the ambient and surface temperatures. As the temperatures increase, the curing rate decreases.

Handling Precautions

Consult the product's material safety data sheet (MSDS) for specific hazard and handling information before use.

Eraspray ESM700 should be used in well-ventilated area if possible. 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.