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Eraspray ESP950

NON-SOLVENTED SPRAY ELASTOMER

TECHNICAL DATASHEET

Eraspray ESP950 is a two component, spray-in-place, solvent free, and 100% solids polyurethane elastomer system.

Additionally, it offers:

1. Convenient 1:1 (volume) mix ratio
2. 100% solids – zero – VOC
3. Fast build for thick requirements – reduced labour and time
4. Fast curing for quick turn around times – cost effective
5. Hydrolytic stability and corrosion resistance
6. Excellent abrasion resistance and toughness
7. Plural component application equipment only
8. heavy duty industrial applications where elastomeric coatings / lining are specified

This particular spray system although it has a high hardness it has a good degree of flexibility and will handle some movement of the substrate associated with climate change or equipment subject to movement.

Product Specification

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
Specific Gravity at 25°C	1.11	1.01
Viscosity at 25°C (cPs)	920	250
Viscosity at 60°C (cPs)	100 - 200	100
Appearance	Clear, light amber liquid	Amber hazy liquid

Surface Preparation

For specific details on recommended primers for surfaces, please consult Era Polymers.

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



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.

Processing Characteristics

- Store in a dry location as urethane components are susceptible to moisture contamination.
- In cold weather, the containers should be kept above 15°C to maintain them in liquid condition.
- Precondition drums at 25 - 30°C and apply at 50 - 70°C at the gun. Increasing the component temperature will lower the viscosity, so it may be necessary to have different temperatures for each component to ensure good mixing.
- 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.
- The substrate should be at least 20°C or hotter.
- Power agitate the Part B during application.

Isocyanate Prepolymer (A)	(pbv)	1
Polyol Curative (B)	(pbv)	1
Isocyanate Prepolymer (A)	(pbw)	100
Polyol Curative (B)	(pbw)	91
Pot Life at 40°C	(seconds)	5 - 10

Coating thickness of approximately 0.5-1 mm per pass is recommended. Several millimeters can be achieved very quickly by allowing 10-20 seconds cooling between passes.

Light duty abrasive coatings	1-2 mm
Medium duty abrasive coatings	2.5 – 5 mm
Heavy-duty abrasive coatings	5 or more
Corrosive protection	1 – 1.5 mm

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 temperature increases, the material cures more quickly. The product continues to cure overnight, and it is advisable not to walk on it for 24 hours.

Physical Properties

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

		Eraspray ESP950	TEST METHOD
Hardness	(Shore A)	95 ± 3	ASTM D2240
Tensile Strength	MPa (psi)	23 (3336)	ASTM D412
100% Modulus	MPa (psi)	8.7 (1262)	ASTM D412
200% Modulus	MPa (psi)	13.5 (1958)	ASTM D412
300% Modulus	MPa (psi)	19.1 (2770)	ASTM D412
Elongation	(%)	350	ASTM D412
Angle Tear Strength, Die C	(kN/m)	64	ASTM D624
Trouser Tear Strength	(kN/m)	32.7	ASTM D1938
DIN Abrasion Resistance 10N	(mm ³)	98	ASTM D5963
Cured Density	(g/cm ³)	0.96	ASTM D1817
Colour		White / Pale yellow	-

Handling and Storage

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

Eraspray ESP950 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.

Recommended storage temperature is 20°C to 30°C. Shelf life is 12 months after receipt of product by customer, when stored in closed, original containers at 25°C.