

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
- 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 |
| | | 77 17 11 11 11 11 11 11 11 |

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 experience.

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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

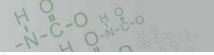
Curing rate of this product is dependent on the ambient and surface temperatures. As the temperature increases, the material cures more quickly. The product continues to cure overnight, and it is advisable not to walk on it for 24 hours.



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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 | (mm³) | 98 | ASTM D5963 |
| Cured Density | (g/cm³) | 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.



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