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AUSTRALIA
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Eraspray ES900PW

NON-SOLVENTED SPRAY ELASTOMER
FOR POTABLE WATER

TECHNICAL DATASHEET

Eraspray ES900PW is a medium performance, non-solvented polyurethane spray elastomer. It is characterized by a solids content of 100% and possesses a good abrasion resistance.

This product is certified in accordance with AS/NZS 4020 (Testing of products for use in contact with drinking water).

Additionally it offers:

1. Convenient 1:1 (volume) mix ratio.
2. 100% solids - zero V.O.C.
3. Fast build for very thick requirements - reduced labour and time.
4. Fast curing for quick turn-around times - cost effective.
5. Hydrolytic stability and corrosion resistance.
6. Good abrasion resistance and toughness.
7. Bonds to any substrate when the appropriate surface preparation and recommended primers are used.
8. Remains flexible and is therefore very suitable to handling expansion and contraction of metal associated with climate change or equipment that is subject to movement.
9. Requires plural component application equipment only.

Application

Eraspray ES900PW is designed for heavy-duty industrial applications where spray applied elastomeric coatings, linings or membranes with good physical properties are specified.

Product Specification

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
Viscosity at 25°C (cps)	1800	185
Viscosity at 40°C (cps)	100	70
Specific Gravity at 25°C	1.10	1.02
Appearance	Clear, pale yellow liquid	Amber/brown 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)	92
Pot Life at 40°C (hand mix)	(seconds)	8 - 15

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

		10 - 15°C	20 - 30°C	30 - 40°C
Hard Coating	(minutes)	20	10	6
Full Cure	(days)	7	6	5
Recoat - minimum	(minutes)	<8	<4	<2
Recoat - maximum	(hours)	5	3	2

Physical Properties

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

		ES900PW	TEST METHOD
Hardness	(Shore A)	90 ± 3	AS1683.15
Tensile Strength	(MPa)	13.9	AS1683.11
100% Modulus	(MPa)	9.3	AS1683.11
Angle Tear Strength, Die C	(kN/m)	42	AS1683.12
Trouser Tear Strength	(kN/m)	12.7	AS1683.12
Elongation	(%)	190	AS1683.11
DIN Abrasion Resistance 10N	(mm^3)	120	AS1683.21
Cured Specific Gravity	(g/cm^3)	1.02	AS1683.4
Water Vapour Transmission	(g/m^2/24 hours)	10.1	-
Colour		White/Pale yellow	-

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 50-60°C at the gun.

4. The substrate should be at least 20°C or hotter.

5. **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.

6. 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.

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

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 spray and caused 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.

Handling Precautions

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

Eraspray ES900PW 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.