

Technical Data Sheet



Elaston-W80

A pure polyurea used for waterproofing and protective coatings, ideal for use over geofabric or high-movement expansion joints

DESCRIPTION

Pure-polyurea, two-component, spray-applied, rapid-set, elastomeric protective coatings. Contains no partially soluble diluents such as Propylene Carbonate and is solvent-free with outstanding abrasion & chemical resistance. , medium hardness and high elongation.

TYPICAL USES/APPLICATIONS

- Water supply channels and facilities
- Planter boxes
- Water reservoirs
- For use over Geofabric
- For use with potable water
- Sewage / wastewater facilities

ADVANTAGES/FEATURES

- Exceptional toughness and flexibility
- Cures to full performance 3-4 times quicker than Tufflon-P90, making it perfect for high movement expansion joints or over Geofabric
- Resistant to puncture and compression
- Contains no volatile or flammable solvents and no catalyst
- High chemical resistance to acids, alkalis and bleach
- Gels in seconds to form seamless linings with a vice-like grip to most surfaces
- Remains permanently elastomeric
- Will not crack or flake
- Withstands high temperatures of up to 220°C

LIMITATIONS

- Standard Aromatic based Polyurea products such as Tufflon and Elaston, will change colour over time, with lighter colours changing more than darker colours. Although this does not affect the long-term physical performance of the lining, if colour change is not acceptable, for aesthetic reasons, a colour-fast, top-coat should be applied.
- Polyurea will only achieve its full physical properties if applied by an experienced operator using properly functioning, plural-component, spray equipment.

TYPICAL LIQUID PROPERTIES		
Property	Part A	Part B
Density Part (kg/L)	1:11	1:00
Viscosity Part (Cps@25oC)	1600	750 - 890
Colour		
Pack size (steel drums)	225kg	200kg

TYPICAL CURED PROPERTIES		
Property	Test method	Results
Mix Ratio (v/v)	Plural equipment	1:1
Hardness	ASTM D 2240-91 Shore A	78
Elongation at 24°C	ASTM D412-92	427%
Abrasion Resistance	ASTM D460-10 (CS-17 @ 1000 rpm with 1000 g weight)	50 mg
Tensile Strength	ASTM D412-92	16.5 MPa
Tear Strength	ASTM D624-86	9.6 MPa
Solids (100%)		100
Flash Point	Pensky Martens Closed Cup	>149°C
Theoretical Coverage		1mm/m ² /litre
Early Fire Hazard	AS1530 Part 3 (1989)	2mm sample
Properties	Ignitability	16
	Index (0-20)	8-9
	Spread of Flame Index (0-10)	9-10
	Heat Evolved Index (0-10)	7
	Smoke	Self-Extinguish

	Developed Index (0-10) ASTM D 1692-68	
Suitability for use with drinking water	AS 4020-2006	Passes all requirements at 5000mm ² per litre exposure.
Cathodic Disbondment with 3mm thick coating	ASTM G8-90 Method B using an impressed current	Rating D
VOCs		Zero
Colour		Green or mid-grey for waterproofing, White for potable water

PROCESSING PARAMETERS	
Proportioning pump	Graco E-XP2 or similar - heated, high-pressure, plural component
Gun	Graco Fusion-AP or similar - Impingement mix, airless
Pressure of material at gun	2,000psi
Temperature of material at gun	65°C
Relative humidity	<85%
Dew point	>5°C above surface temperature

THICKNESS RECOMMENDATION	
High abrasion resistance	>5mm
Protective coating	>3mm
Tanking potable water	>3mm
Waterproofing	>1.5mm
Corrosion and Chemical	>3mm
For use over geofabric	>3mm

CURING SCHEDULE	
Gel time	6 seconds
Tack-free time	45 seconds
Walked on (carefully)	5 minutes
Cure time (99%)	5 hours
Full immersion in water	5 hours
Full physical properties	24 hours
Over geofabric	Will cure in 1 hour, full cure 7 days

STORAGE AND HANDLING

PRECAUTIONS. Under normal storage conditions and in properly sealed containers, both the isocyanate and resin have a storage life of 18 months. Protect from frost. If crystallisation occurs, heat the material to 80oC whilst agitating to melt it. On no account should the materials be heated above 80°C. Storage temperatures above 50°C are not recommended since they can accelerate the formation of insoluble solids and also increase the rate of viscosity increase on extended storage. If either component is opened and partially used, it should be purged with nitrogen or desiccated air and resealed.

APPLICATOR REQUIREMENTS

Applicator must be approved by LiquiMix. Applicator must read Elaston-W80-P80 TDS and SDS and Graco Spray Equipment Operation Manuals prior to use.

PROJECT ENGINEER NOTES

Project engineer verify contractor is approved. Ensure ITP is completed and copy sent to LiquiMix for product warranty. Continuous use of high voltage and DFT gauge recommended. Rectify defects immediately. Lining should be smooth and even with no runs, drips or pinholes. Mask to minimise overspray on adjacent and finished areas.

HEALTH AND SAFETY ADVICE

Please read safety data sheet prior to use of product. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Avoid release into the environment. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash before reuse.

Specific treatment (see advice on label and Safety Data Sheet). If on skin: wash with plenty of soap and water. If in eyes: rinse cautiously with water for several minutes. Remove contact lenses. If present and easy to do. Continue rinsing. Call a poison center or doctor if you feel unwell. If skin irritation or rash occurs get medical advice/attention. If eye irritation persists get medical advice/attention. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Always collect all spillage. Refer to LiquiMix Safety Data Sheets for individual products.

Important Notice

The information contained herein is offered without charge and is for use by technically qualified personnel at their own risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto.

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