

RAYSTON SPRAY P5080

RAYSTON
products



Hard, structural reinforcement polyurea

DESCRIPTION

Rayston Spray P5080 is a hard material for use in the *in-situ* polymeric lining of surfaces and other structural applications, including:

- Pipeline lining, interior and exterior.
- Protection of expanded polystyrene (EPS) and phenolic foam structures against impact
- Industrial machinery and vehicle protection.

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

	Component A	Component B		
Chemical description	Polyamine	Aromatic isocyanate prepolymer		
Physical state	Liquid	Liquid		
Packaging	Metal container 185 kg	Metal container 211 kg		
Non-volatile content	100%	100%		
Flash point	>100°C	>100°C		
Colour	Yellow (without pigment)	Yellow		
Density	Temperature (°C) 25	Density (g/cm ³) 1,06	Temperature (°C) 25	Density (g/cm ³) 1,23
Viscosity	Temperature (°C) 25	Viscosity (mPa.s) 1350	Temperature (°C) 25	Viscosity (mPa.s) 90
A/B mixing ratio	A=1, B=1.11 by weight A=1, B=1 by volume			
Density and viscosity of the A/B mixture	Fast polymerization (see Gel time A+B)			
Colour	Dark yellow, but component A is pigmented by addition of pigment paste (Pigment Spray) delivered with each kit			
Curing performance	Gel time mixture A+B (20 g) 4 s at 25°C 3 s at 60°C Tack free time: 30 s at 70°C			
Storage	Keep between 10°C and 30°C			
Use before	12 months after manufacturing date			

INFORMATION ON THE FINAL PRODUCT

Final state	Elastomeric solid membrane
Colour	Available colours: light grey, dark grey, rust red, blue (may darken during storage and exposure to sunlight). Other colours under request.
Hardness (Shore)	75-80D
Mechanical properties	Maximum elongation: 9% Tensile strength: 60 MPa (UNE EN ISO 527-1/3) Other mechanical properties: Elastic modulus: 939 MPa Flexion: 110 kg
Abrasion resistance	147 mg (Taber, 1000 c. CS-10, 1kg)
Liquid water permeability	0,002 kg/m ² h ^{0.5} (EN 1062-3;2008)
Thermal resistance	Stable up to 180°C (6-hour test).

SUPPORT REQUIREMENTS & PREPARATION

Preparation using the Rayston Spray P5080 standards & equipment for pipe rehabilitation is recommended. Please contact us for details.

MIXING

Component A and B should be preconditioned between 20 °C - 25°C, stirred and homogenised using suitable mixing equipment before being loaded into the Rayston Spray P5080 spray machine. Pigment should be mixed into Comp.A before loading. Recirculate both components while heating up to the required application temperatures.

APPLICATION AND RECOMMENDED QUANTITIES

Rayston Spray P5080 must be applied using mechanical spray equipment.

Please contact us for specific application details.

Recommended temperatures are:

- Component A: 68°C
- Component B: 70°C
- Hose: 67°C

Pressure: 135 bar.

CURING TIME

Rayston Spray P5080 cures to touch after a few minutes after application. Approximate hardness values are provided here as reference only 1 mm, polypropylene support, (25°C 50% RH)

Time	Hardness (Shore A)
5 min	28
10min	40
20 min	60
1 hr	75
24 hrs	85
4 days	95

RECOATING

It is recommended to obtain the required thickness with a single application. Please contact us for specific application details.

RETURN TO SERVICE

Under most conditions the membrane is water-resistant after 30 minutes.

TOOL CLEANING

To keep equipment in good conditions (spraying gun, gaskets, hose), it is recommended not to use solvents but a cleaning fluid like Rayston Fluid. Component B must be thoroughly removed and replaced with this fluid.

SAFETY

Component B of Rayston Spray P5080 contains isocyanates and Component A contains corrosive polyamines that can cause burns. Always follow the safety instructions in the Material Safety Data Sheet. As a rule, good ventilation, protective clothing, and respiratory protection is needed (combined organic vapor filters + particles A2P). This product must be used only for the applications described here. This product is intended for industrial and professional use.

ENVIRONMENTAL PRECAUTIONS

Empty containers must be handled with the same precautions as if they were full. Empty containers are hazardous waste and shall be transferred to an authorized waste manager. If the containers still have some material left, do not mix with other materials. Component A and B may be mixed on a 1/1 ratio to get an inert material, but never in volumes larger than 5 litres, to prevent a dangerous heat evolution.



KRYPTON CHEMICAL SL

C/ Martí i Franquès, 12 - Pol. Ind. les Tàpies
43890 - l'Hospitalet de l'Infant - Spain
Tel: +34 977 822 245 - Fax: +34 977 823 977

www.kryptonchemical.com - rayston@kryptonchemical.com

Latest update: 14/05/2024

Page: 1/2

RAYSTON SPRAY P5080



Hard, structural reinforcement polyurea

OTHER INFORMATION

The information contained in this DATA SHEET, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.

We recommend to study deeply all information provided before proceeding to the application of any of our products, and strongly advise to conduct tests "on-site" to determine their convenience for a specific project.

Our recommendations do not exempt of the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise. The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, the installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials.

This data sheet supersedes previous versions.



KRYPTON CHEMICAL SL

C/ Martí i Franquès, 12 - Pol. Ind. les Tàpies
43890 - l'Hospitalet de l'Infant - Spain
Tel: +34 977 822 245 - Fax: +34 977 823 977

www.kryptonchemical.com – rayston@kryptonchemical.com

Latest update: 14/05/2024

Page: 2/2