

# RAYSTON SPRAY P5080

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## 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
<b>Chemical description</b>	Polyamine	Aromatic isocyanate prepolymer
<b>Physical state</b>	Liquid	Liquid
<b>Packaging</b>	Metal container 185 kg	Metal container 211 kg
<b>Non-volatile content (%)</b>	100%	100%
<b>Flash point</b>	>100°C	>100°C
<b>Colour</b>	Yellow (without pigment) (may darken along storage)	Yellow
<b>Density</b>	Temperature (°C) Density (g/cm <sup>3</sup> ) 25 1,06	Temperature (°C) Density (g/cm <sup>3</sup> ) 25 1,23
<b>Viscosity</b>	Temperature (°C) Viscosity (mPa.s) 35 450 25 1350 15 3560	Temperature (°C) Viscosity (mPa.s) 35 50 25 90 15 160
<b>Approximate values Brookfield mPa.s</b>		
<b>A/B mixing ratio</b>	A=1, B=1.11 by weight A=1, B=1 by volume	
<b>Density and viscosity of the A/B mixture</b>	Fast polymerization (see Gel time A+B)	
<b>Colour</b>	Dark yellow, but component A is pigmented by addition of pigment paste (Pigment Spray) delivered with each kit	
<b>Curing performance</b>	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	
<b>Storage</b>	Keep between 10°C and 30°C	
<b>Use before</b>	12 months after manufacturing date	

#### INFORMATION ON THE FINAL PRODUCT

<b>Final state</b>	Elastomeric solid membrane
<b>Colour</b>	Colour range available on request
<b>Hardness (Shore)</b>	75-80D
<b>Mechanical properties</b>	Maximum elongation: 9% Tensile strength: 60 MPa (UNE EN ISO 527-1/3)  Other mechanical properties Elastic modulus: 939 MPa Flexion: 110 kg
<b>Abrasion resistance</b>	147 mg (Taber, 1000 c. CS-10, 1kg)
<b>Liquid water permeability</b> EN 1062-3:2008	0,002 kg/m <sup>2</sup> h <sup>0.5</sup>
<b>Thermal resistance</b>	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

In order 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 general 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, in order to prevent a dangerous heat evolution.

### 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" in order 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,



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Page: 1/2

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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.**



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Page: 2/2