

RAYSTON SPRAY P3030F

RAYSTON
products



Sprayed, hot-applied polyurea membrane

DESCRIPTION AND APPLICATION

Rayston Spray P3030F is a 2-component polyurea resin, which cures very fast into an elastic membrane with crack-bridging capacity. This product can only be applied by 2-component spraying equipment.

TECHNICAL DATA

PRODUCT INFORMATION BEFORE APPLICATION

	Component A	Component B								
Chemical description	Polyol / Polyamine	Aromatic isocyanate prepolymer								
Physical state	Liquid	Liquid								
Packaging	Metal container 191 kg 23.8 kg	Metal container 205 kg 25.6 kg								
Non-volatile content	approx 100%	100%								
Flash point	>100°C	>100°C								
Colour	Dark yellow (pigment is supplied separately)	Slightly yellow								
Density	<table border="1"><thead><tr><th>Temperature (°C)</th><th>Density (g/cm³)</th></tr></thead><tbody><tr><td>20</td><td>1,0</td></tr></tbody></table>	Temperature (°C)	Density (g/cm ³)	20	1,0	<table border="1"><thead><tr><th>Temperature (°C)</th><th>Density (g/cm³)</th></tr></thead><tbody><tr><td>20</td><td>1,05</td></tr></tbody></table>	Temperature (°C)	Density (g/cm ³)	20	1,05
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20	3000									
A/B mixing ratio	A=1, B=1,05 by weight A=1, B=1 by volume									
Density and viscosity of the mixture	Fast polymerization. See Pot life data									
Colour	Dark yellow, but component A is pigmented by addition of pigment paste (Pigment Spray) for Rayston Spray P3030F.									
Storage	Keep between 10° y 30°C									
Use before	12 months after manufacture, provided it is kept in its sealed container.									

INFORMATION ON THE FINAL PRODUCT

Final state	Solid elastomeric 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)	55 A (ISO 868)																			
Mechanical properties	Elongation at break: >533% Tensile strength: 7.5 MPa (EN-ISO 527-3)																			
Tear strength	37 N/mm (ISO 34-1 method B)																			
UV resistance	Good resistance to UV-induced degradation. Aromatic polyurethanes undergo change of colour under sunlight. Additional UV protection can be achieved by application of an aliphatic topcoat																			
Chemical resistance	Permanent contact (7 days, 80°C 0=worst, 5=best)																			
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SUPPORT REQUIREMENTS

To achieve a good penetration and bonding, support must be:

1. Compact and cohesive
2. Even and regular surface
3. Free from cracks and fissures. If any, they must be previously repaired.
4. Clean and dry, free of dust, loose particles, oils, organic residues, or laitance.

Support temperatures should be 10°C-40°C. Support moisture must be below 4%.

SUPPORT PREPARATION

Eliminate all dust and loose particles from the substrate by brushing or vacuum cleaning.

MIXING

Stir and homogenise separately both components using suitable mixing equipment before being loaded into the machine. Add the required pigment to the A-component and stir before loading. Recirculate both components while heating up to the required application temperatures.

APPLICATION GUIDELINES

Rayston Spray P3030F must be applied using a 2-component hot spraying equipment.

Recommended temperatures are:

- Component A: 60°C
- Component B: 70°C

Pressure should be 150 bar.

During application, check layer thickness and curing speed.

Spray Rayston Spray P3030F at 2 kg/m² as a rule.

Wind speeds more than 25 km/h may result in excessive loss of exotherm and interfere with the mixing efficiency of the spray gun affecting polyurea surface texture, cure, and physical properties and will cause overspray issues.

Contact Krypton Chemical for more detailed technical information.

CURING TIME

Rayston Spray P3030F cures to touch after a few minutes after application. Approximate hardness values are provided as reference only (1 mm, polypropylene support, 25°C 50% RH).

Time	Hardness Shore A
2 hours	43
5 hours	49
1 day	51
6 days	54

RE-APPLICATION

Usually, needed thickness can be obtained in one single coat. If necessary, a second coat can be applied immediately afterwards.

RETURN TO SERVICE

Under most usual conditions (25°C, 50% rh), the membrane is resistant to light use after 15 minutes. After 2 days, 90% of the final properties are reached.

TOOL CLEANING

Solvent use for machine component cleaning is discouraged. A cleaning plasticizer fluid is suitable. Component B must be completely removed from all air-exposed parts and replaced with cleaning fluid.



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QUESTIONS

Problem	Question	Cause	Solution
Product does not cure	AB ratio incorrect?	Pressure differences	Check and correct machine operation
Bubbles or open pores	Poros support?	No primer	Apply suitable primer before Rayston Spray P3030F
No hiding power	Horizontal?	Too little product Too little pigment	Apply 1 kg/m ² Ensure full A+pigment homogenization
Colour change	Exposed to sunlight? Can it be applied without pigmentation?	UV-reaction	Use a last coat in dark grey or red Not recommended. Rayston Spray P3030F is always delivered with the pigment of choice. Use of pigment helps to obtain a uniform appearance.

SAFETY

Component B contains isocyanates. Always follow the safety instructions in the Material Safety Data Sheet. As a rule, a good ventilation and/or respiratory protection is needed (combined organic vapor filters + particles) along with protective clothing. This product must be used only for the applications here described. This product is intended for industrial and professional use. It is not suitable for DIY-type applications.

ENVIRONMENTAL PRECAUTIONS

Empty containers must be handled with the same precautions as if they were full. Treat empty containers as hazardous waste and transfer them to an authorized waste manager. If the containers still have some material left, do not mix with other product with no knowledge of potentially dangerous reactions. Component A and B may be mixed on a 1/1 ratio to get an inert material, but never do it in volumes larger than 5 litres to prevent a dangerous heat evolution.

OTHER INFORMATION

The information contained in this Technical 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 use or 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 all versions.



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