# RAYSTON SPRAY P3030F

## 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 pre-polymer |
| **Physicalstate** | Liquid | Liquid |
| **Packaging** | Metal container 191 kg (Pigment supplied separately) 23.8 kg | Metal container 205 kg 25.6 kg |
| **Non-volatile content (%)** | approx 100% | 100% |
| **Flash point** | >100ºC | >100ºC |
| **Colour** | Dark yellow (pigment is supplied separately) | Slightlyyellow |
| **Density** | | |

| Temp (ºC) | Density (g/cm3) |
|---|---|
| 20 | 1.00 |

| Temp (ºC) | Density (g/cm3) |
|---|---|
| 20 | 1.05 |

**Viscosity** approximate values,Brookfield

| Temp (ºC) | Viscosity () |
|---|---|
| 20 | 250 |
| 30 | 150 |
| 50 | 80 |
| 70 | 70 |

| Temp (ºC) | Viscosity () |
|---|---|
| 20 | 3000 |
| 30 | 1000 |
| 50 | 350 |
| 70 | 200 |

| | |
|---|---|
| **A/B mixing ratio** | A=1, B=1,05 by weight<br>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 10º y 30ºC |
| **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** | Variable, depending on the chosen pigmentation. For colours available, please refer to Pigment Spray data sheet. |
| **Hardness (shore)** | 55 A (ISO 868) |
| **Mechanical properties** | **Elongation at break: >533%** Tensile strength: 7.5 (EN-ISO 527-3) |
| **Tear strength** | 37 N/mm (ISO 34-1 method B) |
| **UV resistance** | Good resistance to UV-indiced 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 (7days, 80ºC 0=worst, 5=best) |

| Chemical | result |
|---|---|
| Sodium hydroxide 40 g/L | 5 |
| Diesel | 4 |
| Sulphuric acid 10% | 4 |
| Sulphuric acid 30% | 2 |
| Ammonia 3% | 4 |
| Methoxypropyl acetate | 0 |
| Isopropyl alcohol | 0 |
| Xylene | 0 |

## SUPPORT REQUIREMENTS

In order to achieve a good penetration and bonding, support must be:
1. Coct 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 10ºC-40ºC. 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 homogeneize 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: 60ºC
- Component B: 70ºC

Pressure should be 150 bar.
During application, check layer thickness and curing speed.
Spray Rayston Spray P3030F at 2 kg/m2 as a general rule.

Wind speeds in excess of 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, 25ºC 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 obtaines in one single coat. If necessary, a second coat can be applied immediately afterwards.

## RETURN TO SERVICE

Under most usual conditions (25ºC, 50% rh), the membrane is resistantto light use after 15 minures. After 2 days, 90% of the final properties are reached.

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## 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.

## QUESTIONS

| Problem | Question | Cause | Solution |
|---|---|---|---|
| **Product does not cure** | AB ratio isocorrect? | Pressurediifferences | Check and correct machine operation |
| **Bubblesor open pores** | Poros support? | No primer | Apply suitable primer before Rayston Spray P3030F |
| **No hidingpower** | Horizontal? | Too little product<br>Too little pigment | Apply 1 kg/m2<br>Ensure full A+pigmenthomogeneization |
| **Colour change** | Exposed to sunlight? | UV-reaction | Use a last coat in dark grey or red |
| | Can it be applied without pigmentation? | | Not recommended. Rayston Spray P3030F is always delivered with the pigment of choice. Use of pigment helps to obtain an uniform appearance. |

## SAFETY

Component B contains isocyanates. Always follow the safety instructions in the Material Safety Data Sheet. As a general rule, a good ventilation and/or respiratory protection is needed (combined organic vapor filtres+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 containes still have some material left, do not mix with other product with no knowledge of potential dangerous reactions. Component A and B may be mixed on a 1/1 ratio in order to get an inert material, but never do it in volumes larger than 5 litres in order to prevent a da ngerous 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” 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, 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**