

KRYPTANATE 100 FLEX S

RAYSTON
products



Solvent-free polyaspartic aliphatic elastic protective finish to be applied in high temperature ambient conditions

DESCRIPTION

Polyaspartic aliphatic elastic protection finish, free of solvents, to be applied in environmental conditions of high temperatures. Totally solvent-free, 100% solid. Two-component system, manual application, based on polyaspartic resins (fast curing and return to service). It has a good chemical resistance, abrasion, grating, UV radiation and exterior. Its properties of elasticity and flexibility prevent the resin applied both indoors and outdoors from fisure. The resin is supplied colorless or pigmented.

APPLICATION

Aliphatic protective finish, for cold applied polyureas and pavement resins (especially those that do not contain solvent). Particularly recommended in indoor or outdoor applications: industrial, industrial/decorative, multilayer flooring.

PROPERTIES

- Ideal system for finished aliphatic protector.
- Fast curing and return to service
- Good adhesion
- High hardness and resistance, achieved in a single application
- Excellent brightness and color retention
- Based on aliphatic polyisocyanate. Does not yellow
- High weather resistance
- Improvement in corrosion resistance. Various evaluations demonstrate that these coatings contribute effectively to inhibit corrosion on metal surfaces.

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

	Component A	Component B		
Chemical description	Polyamine	Solventless aliphatic polyisocyanate		
Physical state	Liquid	Liquid		
Packaging	Metal container	Metal container		
	Colourless 2,64 kg 7,93 kg	Colourless 2,36 kg 7,07 Kg		
	Pigmented 3,33 kg 10 kg	Pigmented 1,66 kg 5 kg		
Non-volatile content (%)	100%	100%		
Flash point	100°C	>100°C		
Colour	Colourless or pigmented	Colourless		
Density (25°C)	Colourless 1,12 g/cm ³ Pigmented 1,46 g/cm ³	1,10 g/cm ³		
Viscosity	Temperature (°C)	Viscosity (mPa.s)	Temperature (°C)	Viscosity (mPa.s)
approximate Brookfield	25	90 (colourless)	25	660
	25	650 (pigmented)		
A/B mixing ratio	A=100, B=50 by weight A=100, B=66 by volume			

Initial mixture properties	Density: 1,1 g/cm ³ Viscosity: 600 mPa.s	
Working time	Conditions (100g) 25°C 30%rh	Pot life (min) 90
	High temperatures and humidity reduce working time	
Storage and expiration	Store between 10° and 30°C, protected from moisture. Expiration: 12 months from its manufacture.	
INFORMATION ON THE FINAL PRODUCT		
Final state	Polyaspartic solid film	
Hardness (Shore) (ISO 868)	90A/35D	
Solid density	1,1 g/cm ³	
Mechanical properties	Maximum elongation: 117% Tensile strenght: 9 MPa (EN-ISO 527-3) Tear: 100 N/mm (ISO 34-1, method B)	
UV resistance	Kryptanate 100 FlexS, by its aliphatic isocyanate nature, does not undergo color change under sunlight.	
Gloss	80-90% (at 60°, 1 mm thickness)	

SUPPORT REQUIREMENTS

Support must fulfill the following requirements:

- Cohesive strength: minimum 1,5 MPa
- Compression strength: minimum 25 MPa

Free from any vapour or water pressure. Support must also be clean, dry and free from poorly adhesive areas. Moisture content must be less than 4%.

It must be free of oil stains, grease, cured product, and any substance that could interfere with adhesion.

Recommended support temperature: 5°C to 25°C.

ENVIRONMENTAL CONDITIONS OF HUMIDITY AND TEMPERATURE

Recommended air temperature: +20°C to +35°C.

Recommended humidity: 40% to 80%.

Attention: At higher temperatures and higher humidity conditions, working time is considerably reduced. If the temperature is below to 20°C, it's recommended to apply Kryptanate 100 Flex S reference as an alternative (faster curing under these conditions).

SUPPORT PREPARATION

On newly applied membrane:

- Hot applied membrane: To achieve a good adhesion between layers apply half an hour after the application of the hot membrane.
- Cold applied membrane: To achieve good adhesion between layers
- apply shortly after drying, depending on the product and environmental conditions, following the recommendations of the technical sheet of each reference in particular.

On a membrane cured not recently:

To achieve good adhesion it is recommended to sand, clean with Rayston Solvent and then apply the PU Primer.

MIXING

Open component A container. Stir using a low-speed stirrer preventing an excessive air bubbling, until dispersion of fillers. Pour component B in it and stir gently for 2 minutes. Transfer the mixture to a bigger container and check there is no unmixed product left or slumps of undispersed filler material. Note that humidity can reduce pot life.



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APPLICATION

Must be applied with roller. The use of airless machine is discouraged for hygiene reasons. The reaction kinetics increases with the amount of product mixed, so it is advisable not to mix more product that can be applied in 25 minutes, in order to avoid an advance excessive of the reaction and hindering its subsequent application, or affecting negatively to the aesthetics of the work.

RECOMMENDED QUANTITIES

As a protective finish of membranes, one or two layers of 250 grams / m² per layer, depending on the loads that the membrane must withstand. For other applications, see Krypton Chemical SL.

CURING TIME

Curing time depends strongly on the local conditions. Curing speed will increase with temperature and humidity. The following table gives approximate values for 200 g/m² applications. Thicker coats will give longer curing times. Thinner coats will cure faster.

Conditions	Dry-touch
25°C, 30% rh	3h 30 min

REAPPLICATION

Usually desired thickness is achieved in a single coat.

RETURN TO SERVICE

One hour after touch-dry, light traffic is usually allowed.

TOOL CLEANING

Component A and B can be cleaned with solvent Rayston. Cured product cannot be dissolved, unless special stripping products are used. Due to its fast-curing rate, A+B mixture staining must be cleaned as soon as possible.

MAINTENANCE

A daily water scrubbing is allowed. Solvents may seriously damage the surface.

FAQ

Problem	Answer
Dilution?	Not usually needed. If desired, some solvent can be added, but keep in mind that this will result in a longer drying time, and colour could be affected. Solvents must be always

polyurethane grade. They must be absolutely free from alcohols or water, or any substance that can affect the crosslinking reaction. Recommended solvents are xylene or methoxypropyl acetate (PMA).

Is spreading of quartz sand allowed?

Yes. The pot life gives enough time for the application of antislip additives (Quartz sand, bauxite, etc) between two coats. Please refer to Krypton Chemical advice for further information on the application details.

SAFETY

Kryptanate 100 Flex S contains isocyanates. Always follow the instructions provided in the material safety data sheet and take the precautions described there. As a general rule, suitable ventilation must be ensured, and any skin contact avoided. This product is intended to be used only for the uses and in the way here described. Sprayed application methods are not recommended due to health/safety reasons. This product is to be used only by industrial or professional users. It is not suitable for DIY-type uses.

ENVIRONMENTAL PRECAUTIONS

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager.

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 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 versions.



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