Rayston Protect PW

CHEMICAL RESISTANT, HIGH BUILD, SOLVENT FREE RESIN BASE EPOXY PROTECTIVE COATING.

DESCRIPTION

Rayston Protect PW is a two component, solvent free, nontoxic epoxy coating with outstanding mechanical and chemical properties.
Therefor it is suitable to use in areas where contact with potable water storage tanks as **Rayston Protect PW** does not support the growth of bacteria, and could be used where hygienic requirement is needed such as food & beverage and pharmaceutical fields.

USES

Rayston Protect PW may only be used by experienced professionals.

- Could be used on both concrete and steel surfaces.
- As internal lining for tanks, silos and mills.
- Drinking & Potable water contact.
- Water treatment plans & Sewage works.
- Food processing plants.
- Agricultural enterprises.
- Pharmaceutical facilities.
- Hospitals.
- Oil refineries.
- Anti-corrosion coating on steel in chemical facilities as a gas and vapour barrier.
- Power stations.
- Sugar manufacturing plants.

PRODUCT INFORMATION

Composition	Epoxy resin
Packaging	4 kg – 15 kg unit (A+B)
Colour	Normally light grey or white color. Other colors are available upon request.
Shelf life	12 months from date of production.
Storage conditions	Store in unopened, undamaged and sealed original packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight, heat and moisture.
Density	~1.57 kg/l (23 °C)
Flash Point	140°C
Solid content by weight	100%
Solid content by volume	100%
Volatile organic compound (VOC) content	< 100 g/L

TECHNICAL INFORMATION

Shore D Hardness	80 tested according to ASTM D2240
Abrasion Resistance	Medium to High in abrasion
Dry film thickness	~ 185 micron per layer for consumption 300 gm/m2
Tensile Strength	~ 12 N/mm2 tested according to ASTM D638
Tensile Adhesion Strength	~ 1.5 N/mm2 tested after 7 days according to **ASTM C1583** ~ 1.2 N/mm2 tested after 7 days according to **ASTM D4541**
Chemical Resistance	Resistant to wide range of chemicals & acids. Please contact Krypton Technical Department for specific information.
Temperature Resistance	50°C (dry heat) 65°C (wet heat), and could reach up to 80°C (wet heat) temporary.
Permeability to Water Vapour	Excellent Resistant
Watertightness	0.37% Water Absorption tested according to ASTM D570
Service Temperature	5°C to 80°C
System Structure	**Concrete** • Primer: apply 1 layer of Rayston Floor 1200 with consumption 150 - 200 gm/m2, for highly porous surfaces a second layer of primer will be needed. • Putty: it is optional stage as it depends of the surface`s profile and if needed it could be performed using a mix of Rayston Protect PW (A+B) added to fine filler (C) with consumption app 150 - 200 gm/m2 of the mix (A+B+C). • Top Coats: apply minimum 2 coats of Rayston Protect PW (A+B) with consumption 250 - 300 gm/m2 per coat. **Steel** • Primer: Apply primer layer using Zinc rich with consumption app 250- 300 gm/m2 • Top Coats: apply minimum 2 coats of Rayston Protect PW (A+B) with consumption 250 - 300 gm/m2 per coat.

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APPLICATION INFORMATION

Mixing Ratio	Mixing Ratio (A: B) = (4: 1) by weight
Consumption	~0.3 kg/m2 for a layer-thickness of 180 micron. This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc..
Ambient Air Temperature	+5 °C min. / +40 °C max.
Relative Air Humidity	< 80 %
Dew Point	Beware of condensation! The substrate and uncured floor must be at least 3 °C above dew point to reduce the risk of condensation or blooming on the floor finish. **Note**: Low temperatures and high humidity conditions increase the probability of blooming.
Substrate Temperature	+5 °C min. / +40 °C max.
Substrate Moisture Content	< 4 % kccpit moisture content. Test method: using hydrometer or any equivalent device
Pot Life	~40 min. (20 °C)
Curing Time	Fully cured after 7 days (25 °C)
Drying time	6 - 8 hours @ (25 °C)
Waiting Time / Overcoating	Min. 4 h (35 °C) Min. 5 h (25 °C) Max. 2 d (25 °C)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- The substrate must be sound and of sufficient compressive strength (minimum 25 N/mm2) with a minimum pull off strength of 1.5 N/mm2
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes / voids and surface levelling must be carried out using appropriate concrete repair products. Kindly refer to krypton technical team.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.
- Steel surfaces should be primed using a suitable Zinc Rich as anti-corrosion primer.

MIXING

Stir the contents of the resin (Part A) to disperse settled components, then add the hardener (Part B) and mix thoroughly until a uniform consistency is obtained.

APPLICATION METHOD / TOOLS

By airless spraying or roller or stiffed brush.

CLEANING OF EQUIPMENT

Tools and equipment should be cleaned with Thinner immediately after use. Hardened material can only be removed mechanically.

IMPORTANT CONSIDERATIONS

- Do not apply **Rayston Protect PW** on substrates with rising moisture.
- Freshly applied **Rayston Protect PW** should be protected from damp, condensation and water for at least 24 hours.
- Apply on a falling temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- These pinholes can be closed after a soft grinding by applying a scratch coat of **(Rayston Floor 1200)** mixed with approximately **3 %** of fine filler or epoxy putty.
- For potable water application, local authorities / regulations should be followed.
- The cleaning and disinfection procedures of installed membrane surfaces shall be performed according to the requirements of the local Water Authority.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

ADDITIONAL INFORMATION

The information contained in this TECHNICAL SHEET, as well as our advice, both written and provided verbally or through tests, are given in good faith based on our experience and the results obtained through tests carried out by independent laboratories, and without serving as a guarantee for the applicator, who must take them as merely indicative references and with strictly informative value.
We recommend studying this information in depth before proceeding to the use and application of any of these products, although it is especially convenient that they carry out tests "in situ", to determine the suitability of a treatment in the place, with the purpose and in the specific conditions that occur in each case.
Our recommendations do not exempt from the obligation that the applicator has to know in depth, the correct method of application of these systems before proceeding to their use, as well as to carry out as many previous tests as are appropriate if the suitability of these for any work, installation or repair is doubted, taking into account the specific circumstances in which the product is going to be used.
The application, use and processing of our products are beyond our control and therefore under the sole responsibility of the installer. Consequently, the applicator will be solely and exclusively responsible for damages arising from the total or partial non observance of the user and installation manual and, in general, from the inappropriate use or application of these products.
This data sheet overrides the previous ones.