

Acrylic reinforced, cementitious waterproofing flexible coating for concrete and masonry

Product Description

A cement base, 2 component polymers modified waterproofing slurry. It is applied to concrete and mortar structures to prevent water infiltration.

USES

Rayston 170 is used for external and internal waterproofing, crack sealing, repair work and protection from frost and detrimental effects of de-icing agents in the following structures:

- Sewage treatment facilities including concrete tanks, digestors, clarifiers etc...
- Water treatment facilities.
- Waterproofing basement and cellars.
- Terraces and balconies.
- Bridges & Sea walls.
- Retaining walls & for sealing "hairline" cracks in concrete structures not subject to movement surfaces.
- Swimming pools and waterproofing of drinking water tanks and reservoirs.

ADVANTGES

Rayston 170 provides the following beneficial properties:

- Pre-batched components.
- Mixed and applied easily & it can be spray applied.
- Slurry or trowelable consistency.
- Good adhesion to sound substrates.
- Impermeable and protection against concrete carbonation (80 microns **Rayston 170** is equivalent to 6 inches of concrete).
- Increased frost and salt resistance.
- Non-toxic and slightly flexible.
- Non-corrosive to steel or iron & over-paintable.

PRODUCT DATA

Form

Colour	Grey, White, Beige and light blue
Packaging	25 kg (A+B)
Storage Conditions	Free from frost and moisture.
Shelf Life	12 months when unopened.

TECHNICAL DATA

Chemical Base	Part A: Portland cement selected aggregate and admixtures Part B: liquid (Styrene acrylic) polymer and additive
Density	Comp (A+B) = 2.0 kg/l (mixed)
Compressive Strength	30 - 40 N/mm ² at 20°C after 28 days (mortar consistency) (ASTM-C-942 / C579) I.S.O. Quality assurance laboratory Results.
Flexural Strength	10 - 12 N/mm ² at 20°C after 28 days (mortar consistency). (ASTM-C-580)
Bond Strength	1 - 2 N/mm ² (ASTM-C882)

APPLICATION DETAILS

Mixing Ratio	Slurry 1: 4 by weight Mortar 1: 4.5 by weight
Coverage	Depending on type of application, two (2) coats always required. Three (3) coats may be required in areas of extremely high infiltration. 1st coat consumption 1-1.25 kg/m ² on damp surface. 2nd coat consumption 0.8 - 1 kg/m ² approx.

Surface Preparation

Concrete, mortar and masonry surfaces must be clean, free from grease, oil and loosely adhering particles. All surfaces must be as true and flat as possible. Saturate absorbent surfaces thoroughly with water before application.

APPLICATION

Mixing

The consistency of the mix can be altered by reducing the amount of component (A) to be used. Under normal circumstances, when the full quantities of both components are mixed together, a slurry consistency will result. For a trowelable consistency use only 90% of component (A) (approx. 4.5 kg) Mix in a clean container by slowly adding the powder component to the liquid component and stirring with slow speed mixer.

Application

While the surface is still damp (no standing water) apply the first coat and leave to harden (2-6 hours). For slurry consistency, apply with a hard-plastic bristled brush or broom. For trowelable mortars, use a notched trowe.

After the second coat has been applied, finish by rubbing down with a soft dry sponge.

After application of the second coat, finish **Rayston 170** by rubbing down with a soft dry sponge. In case of a third coat, scratch the surface of the second coat with the edge of the trowel to provide a mechanical key.

As Balcony Waterproofing Layer

Substrate must be SSD with no standing water at time of application. Apply a thick layer of **Rayston 170** over the entire balcony. While the material is still wet apply a non-alkaline, woven fiberglass mesh to reinforce the 170 layers along static hairline cracks, wall to slab transitions and patched areas. Using trowels remove any wrinkles in the mesh by forcing down into the **Rayston 170**. Ensure the mesh is completely embedded and covered with **Rayston 170**. If any areas are not covered apply additional Rayston 170 over top of mesh to cover. Trowel to a smooth uniform finish. Allow curing so that surface can take light foot traffic without harming the coating.

In case of needed plaster layer over **Rayston 170**, broadcasting rough sand is recommended to apply as bonding agent.

Cleaning

Do not leave material to harden before cleaning tools and equipment with water. Hardened material can only be removed mechanically. +10°C

Waiting Time /Over-coating

Waiting time between coats:

+10°C	~ 12 hours
+20°C	~ 6 hours
+30°C	~ 3 hours

If waiting time period exceeds 24 hours, lightly blast clean the surface.

Rayston 170 can be over-painted using solvent based primers or coatings.

Rayston 170 must cure for a minimum of 7 days before over-coating.

Pot Life

35 minutes at 20°C, at higher temperature consult Krypton Technical Services.

Important Recommendations

Rayston 170 Minimum ambient and substrate temperature +8 °C. Never apply more than 2 kg/m2 for one layer.

Avoid application in direct sun and/or strong wind. Do not add water in any circumstances. Apply only to sound, prepared substrates. Do not exceed maximum layer thickness.

For waterproofing or damp proofing application, always use at least 2 coats to give a total thickness of between 1.0 to 1.50 mm. In areas of severe water penetration, three coats might be required.

Allow 2 days of air curing before subjecting **Rayston 170** to submersion

Protect freshly applied material from freezing conditions and rain etc.

Rayston 170 does not provide a trafficable finish. Use Finishing Mortar for traffic surface or protect with a **Rayston Latex** bonded screed.

Curing

As with all cement based products, curing is important. Protect newly applied product against direct sunlight, wind, rain and frost in severe heat and/or wind, protection of the **Rayston 170** is recommended for water tanks and swimming pools, it is essential to cure **Rayston 170** immediately after application for a minimum of 3 to 5 days to ensure full cement hydration and to minimize cracking. Use polythene sheeting or similar approved methods.

Safety Instructions

Ecology

Do not dispose of into water or soil, but according to local regulations.

Ecology.

Non-hazardous.

Safety Precautions

Wear gloves and goggles. In contact with eyes or skin product, may cause irritation.

Toxicity

Non-Toxic under relevant health and safety codes.

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.