Rayston Floor 1200

EPOXY PRIMER, LEVELLING SEALER, INTERMEDIATE LAYER AND MORTAR SCREED

DESCRIPTION

Rayston Floor 1200 is a high grade, high build multipurpose epoxy resin which can be used as surface sealer or scratch coat with and without the addition of the suitable quartz sand or filler.

USES

Rayston Floor 1200 may only be used by experienced professionals.

- Priming concrete substrates, cement screeds and epoxy mortars.
- For low to medium absorbent substrates.
- Epoxy primer under different bases of flooring systems such as resin epoxy base, fully polyurethane systems and polyurethane screeds.
- Intermediate layer underneath multi epoxy flooring systems.
- May be mixed with sand to the desired consistency to repair patches or form covings.
- Binder for levelling layers and mortar screeds.
- Used as well as for the filling of fissures and joints.

CHARACTERISTICS / ADVANTAGES

- Good penetration
- Good bond strength
- Economical and easily applied
- Short waiting times
- Multi-purpose use

PRODUCT INFORMATION

Composition	**Epoxy**
Packaging	Mixing Ratio by: "A" 4: "B" 1 weight 15 kg **(**A+B**)** - (12+3) kg
Appearance / Colour	Part A brownish-transparent, liquid Part B transparent, liquid
Shelf life	12 months from date of production
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.
Solid content by weight	~100 %
Solid content by volume	~100 %
Volatile organic compound (VOC) content	< 100 g/l

TECHNICAL INFORMATION

Shore D Hardness	~76 (7 days / +23 °C**)** **(DIN 53 505)**
Abrasion Resistance	Mortar Screed when mixed with selected graded aggregate from Krypton Range (C): 48mg loss (CS 17 / 1000 Cycle / 1000 g)
Compressive Strength	Resin: ~ 60 N/mm2 (28 days / +23 C) (EN 196-1) Resin: ~ 50 N/mm2 (14 days / +23 C) (ASTM C579 - Method B) Mortar Screed when mixed with selected graded aggregate from Krypton Range (C): ~ 70 N/mm2 (14 days / +23 C) (ASTM C579 - Method B)
Tensile Strength in Flexure	Resin: > 26 N/mm² (ASTM D790) Mortar Screed when mixed selected graded aggregate from Krypton Range (C): >37N/mm² (ASTM D790)
Tensile Strength	Resin: ~ 60 N/mm2 (28 days / +23 C) (ASTM D638)
Tensile Adhesion Strength	> 1.7 N/mm² (failure in concrete) Resin (ASTM D4541 - Pull off > 1.6 N/mm² (failure in concrete) Mortar **(ISO 4624 - Pull off)**
Resistance to Impact	Excellent
Chemical Resistance	Resistant to wide range of general chemicals and acids. For severe conditions, please refer to Krypton technical team
Temperature Resistance	**Exposure*** / **Dry heat** Permanent: +50 °C Short-term max. 7 days: +80 °C Short-term max. 12 hours: +100 °C Short-term moist/wet heat* up to +80 °C where exposure is only occasional (steam cleaning etc.).

***No simultaneous chemical and mechanical exposure and only in combination with Rayston systems as a broadcast system with approx. 3–4 mm thickness.**

CONSUMPTION

Coating System	Product	Consumption
Priming (Low Porosity Surface)	1of Rayston Floor 1200	**1 layer x 0.15-0.2 kg/m2**
Priming (Medium Porosity Surface)	2of Rayston Floor 1200	**2 Layers x 0.15 kg/m2/layer**
Surface Sealer (High Porosity Surface)	1 pbw Rayston Floor 1200 :1 pbw Fine Filler	**1 layer x 0.3-0.35 kg/m2**
Epoxy screed / Repair Mortar (4 –12 mm layer thickness)	1 pbw Rayston Floor 1200: 8-10 pbw quartz sand FILLER 03	**2.2 kg/m2/mm**

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Cementitious substrates (concrete/screed) must be structurally sound and of sufficient compressive strength (minimum **25 N/mm2**) with a minimum tensile strength of **1.5 N/mm2.**
Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
Cementitious substrates must be prepared mechanically using suitable abrasive blast cleaning or planning/scarifying equipment to remove cement laitance and achieve an open textured gripping surface profile suitable for the product thickness.
High spots can be removed by grinding. Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be fully exposed.
Repairs to the substrate, filling of cracks, blowholes/voids and surface levelling must be carried out using appropriate products from the **Rayston Floor 1200**, and **Rayston Brace** and R**ayston floor range** of materials. Products must be cured before applying **Rayston Floor 1200**.
All dust, loose and friable material must be completely removed from all surfaces before application of the product and associated system products, preferably by vacuum extraction equipment.

MIXING

Prior to mixing all parts, mix separately part A (resin) using a low-speed single paddle electric stirrer (300 - 400 rpm). Add part B (hardener) to part A and mix it together continuously for 2-3 minutes until a uniform mix has been achieved. When parts A and B have been mixed, gradually add the appropriate granulometry of dried quartz sand and if required Extender. Mix for a further 2 - 3 minutes until a uniform mix has been achieved. To ensure thorough mixing pour materials into another container and mix again to achieve a smooth consistent mix. Excessive mixing must be avoided to minimise air entrainment. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Prior to application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures. If moisture content > 6% parts by weight, Humidity primer should be applied from krypton.

Primer

Pour mixed **Rayston Floor 1200** onto the prepared substrate and apply by brush, roller or squeegee then back roller in two directions at right angles to each other. Ensure a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Confirm primer waiting /overcoating time has been achieved before applying subsequent products.

Surface Sealer (Scratch Layer)

Spread the mix **Rayston Floor 1200** with fine filler (K4) using notched trowel as a scratch coat.

Epoxy screed / repair mortar

Apply the repair or screed mortar onto the “tacky” primer layer. For the screed, use levelling battens and screed rails as necessary. After a short waiting time, compact and smoothen the mortar with a trowel. For the screed, a teflon coated power float **(~20 - 90 rpm)** is recommended.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Thinner C immediately after use. Hardened material can only be removed mechanically.

Curing Time

Before applying non-solvent based products on Rayston Floor 1200 allow:

Substrate temperature	Minimum	Maximum
+10 °C	24 hours	4 days
+20 °C	12 hours	2 days
+30 °C	8 hours	24 hours

Before applying solvent based products on **Rayston Floor 1200** allow:

Substrate temperature	Minimum	Maximum
+10 °C	36 hours	6 days
+20 °C	24 hours	4 days
+30 °C	16 hours	2 days

Pot Life

Temperature	Time
+10 °C	~50 minutes
+20 °C	~25 minutes
+30 °C	~15 minutes

IMPORTANT CONSIDERATIONS

- After application, **Rayston Floor 1200** must be protected from damp, condensation and direct water contact (rain) for 24 hours.
- Construction joints and existing static surface cracks in substrate require pre-treating with a stripe coat by prefilling and levelling to seal against loss of material through the joint or cracks before full layer application. Use Rayston Brace or Rayston Floor resins.
- The incorrect assessment and treatment of cracksmay lead to a reduced service life and reflective cracking on the surface.
- If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO2 and H2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- Discard any material over the pot life recommendations.
- Do not apply on substrates with rising moisture.
- **Rayston Floor 1200** mortar screed is not suitable for frequent or permanent contact with water unless sealed.
- Pre-trials must be carried out for mortar mixes to assess suitable aggregate grain size distribution.
- For external applications, apply on a falling temperature. If applied during rising temperatures “pin holing” may occur from rising air. These pinholes can be closed after light grinding by applying a scratch coat of **Rayston Floor 1200** mixed with ~3 % of Extender T.

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.

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.