

Non-Shrinkage Micro Concrete for Concrete Repair and Filling Under Base Plate

DESCRIPTION

Rayston Grout 66 is a one component, free-flowing, high strength, cement based micro-concrete with a maximum aggregate size of 10 mm. Suitable for use in tropical and hot climatic conditions.

RECOMMENDED USE

Rayston Grout 66 is used for the structural repair of deteriorated concrete. It is ideal for casting sections or members where the volumes required are too large for conventional grouts, and too small and inaccessible for normal concreting applications. A typical application is the re-profiling of damaged concrete members, using formwork. Also suitable for grouting and precision application such as:

- Bridge bearing plates.
- Machine bases.
- Mechanical bridge joints.
- Anchor bolts.
- Crane rails.
- Suitable for base plate grouting where thickness exceeds 50 mm

ADVANTAGES

- One component -requires the addition of water only.
- Reduces waste and risk of mixing failures.
- Easy to mix, apply and finish.
- Economical.
- Excellent adhesion & Non shrinkage.
- Rapid strength development.
- Compatible with the properties of typical conditions.
- Vapour permeable.
- High resistance to freeze/thaw cycling.

STANDARDS

Rayston Grout 66 has been tested as per SCAQMD Rule 1168 Result VOC Content 0 g/L

PRODUCT INFORMATION

Type	Mixture of Portland Cement and graded aggregates
Form	Powder
Colour	Grey
Packaging	25kg Sack
Storage	Store in a dry area between 5°C and 35°C. Protect from direct sunlight
Shelf-life	12 months minimum from production date if stored properly in original unopened packaging.

TECHNICAL INFORMATION

Mixing Ratio	3.0-3.25 liters of water per 25kg bag or 12- 13% water by weight of powder.
Density	Approximately 2400kg/m3 at 25°C (fresh mortar)
Thickness	Minimum 50 mm per pour Maximum 500 mm per pour

MECHANICAL STRENGTHS [EN 196-1]

Compressive Strength	<ul style="list-style-type: none"> • 1 day: 30–35 N/mm2 • 7 days: 45–55 N/mm2 • 28 days: 60–70 N/mm2
Flexural strength	28 days: 8–10 N/mm2
Bond Strength (Pull off)	28 days: ~3 N/mm2
Modulus of Elasticity [ASTM -C469]	28 days: 34133.5 MPa

APPLICATION INFORMATION

SURFACE PREPARATION

Concrete surfaces should be clean, sound and free from oil, grease, cement laitance and all loosely adhering particles. Absorbent surfaces should be saturated thoroughly. Metal surfaces (iron and steel) should be free from scale, rust, oil and grease.

BONDING AGENT AND STEEL PROTECTION

Embedded reinforcing steel should be free from scale, rust, oil and grease, and treated with a suitable protective coating such as **Rayston Brace Adhesive**. The application of a suitable bonding agent, such as **Rayston Brace Adhesive**, will improve adhesion on large areas or where particularly dense concrete substrates are involved.

MIXING

Always empty the full contents of the bag into a suitable mixer. Mix DRY for 3 minutes before adding the water. Add 3.0–3.25 litres of water per 25kg bag. Mixing can only be achieved using either a slow speed drill (400-600 rpm) fitted with clean, rust free, mixing paddle, or a forced action mixer.

DO NOT MIX BY HAND OR USE PART BAG.

For best results, first add 2.5–2.6 litre. of water and mix for at least 3 minutes or until the larger aggregate has thoroughly dispersed and a uniform, free-flowing consistency is obtained. Then add remaining water and mix for additional 2 minutes.

APPLICATION

Dampen the surface thoroughly with clean water prior to the application. Before pouring, however, let the mixed mortar stand for 2–3 minutes after mixing with water to allow entrapped air to escape. Maintain sufficient hydrostatic head to keep the product flowing. Provide channels for the air to escape during grouting. Protect from rain until initial set has been achieved.

CURING

Treat exposed surfaces with Rayston Curing Compound Range or use other approved curing methods such as polyethylene sheeting or wet hessian

CLEANING

Clean equipment and mixer after application with water. Hardened material can only be removed mechanically.

Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing. At high temperatures use chilled water for mixing to keep mortar temperature below 30°C. In hot weather, base plates and foundations must be shaded from direct sunlight. Condition bags prior to use.

SAFETY

PRECAUTIONS

Skin barrier cream, safety goggles and rubber gloves are recommended.

ECOLOGY

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

TOXICITY

Non-Toxic.

TRANSPORTATION

Non-hazardous.