

# ROCKBOND SCP LTD

# FORMULATORS, MANUFACTURERS AND CONSULTANTS OF SPECIAL CONCRETE PRODUCTS

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#### ROCKBOND SUPER DENSITY (3600) GROUT AND SUPER DENSITY (4000) GROUT

#### **DESCRIPTION:**

ROCKBOND SUPER DENSITY (3600) GROUT (RB SD3600G) powder is a specially designed, premixed, ready to use, cementitious grout powder. The compound is a blend of fine cements, quality graded heavy sands and a set of admixtures. When the powder is mixed with water, a free flowing, anti-shrink, super density, high strength grout is produced, which will not segregate or bleed at the recommended water content. ROCKBOND SUPER DENSITY (3600) GROUT has a minimum set density of 3600kg/m³, and the ROCKBOND SUPER DENSITY (4000) GROUT (RB SD4000G) has a minimum set density of 4000kg/m³. The powders are packaged in 25kg moisture proof, durable sacks, and have a shelf life of 5 years.

#### **SPECIAL PROPERTIES:**

- \* Quickly and easily mixed, poured and placed.
- \* Contains a unique system of wetting, dispersing and stabilising agents.
- \* No segregation or bleeding at the recommended water content.
- \* The grouts are high flow, self compacting, self smoothing, and are readily pumpable.
- \* Anti-shrink.
- \* Can be formulated and supplied to give densities of between 2500 and 6000kg/m³.
- \* Contain no chlorides, high alumina cement or other deleterious substances.
- \* High yielding, economical, non flammable, non toxic, odour free, user friendly and safe to use.

#### USES:

- + Flowing super density and super strength applications.
- + Radiation shielding and absorption.
- + Barrier to microwave, X-rays and other harmful radiation.
- + For use in hospital X-ray rooms.
- + Electronic shielding to computer rooms.
- + Military installations.
- + High security safe protection.
- + Ballast for boats.
- + To protect concrete exposed to a high degree of thermal attack, impact and abrasion.

#### MIXING INSTRUCTIONS:

ROCKBOND SUPER DENSITY (3600) GROUT powder is mixed with water using a ROCKBOND CONCRETE STIRRER (RB CS), a pneumatic or electric power tool (1kW) and a ROCKBOND 25 LITRE MIXING CONTAINER (RB 25LMC). Use a ROCKBOND FORCED ACTION PAN MIXER (RB FAPM) to mix larger amounts of the material.

Add 2.00 litres of water to the container or mixer. Pour 25kg of powder onto the water while mixing. For batches of 2 or more bags, repeat the procedure. After all the powder has been added, mix for 30 seconds. The grout is now ready for use.

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#### ROCKBOND SUPER DENSITY (3600) GROUT AND SUPER DENSITY (4000) GROUT,

#### MIXING INSTRUCTIONS CONTINUED...

Alternatively, small amounts of the material can be prepared by slowly adding the powder to a quantity of water and mixing to the required consistency.

ROCKBOND SUPER DENSITY (4000) GROUT powder is mixed with water at 7% water content: 1.75 litres of water/25kg bag of powder..

#### APPLICATION PROCEDURE:

All necessary preparatory work must be completed before the grout is mixed. Thoroughly and completely abrade the surface where necessary to produce a sound substrate with a good mechanical key. All traces of contamination must be removed. Vacuum clean or blow away all dust and debris.

On weak, friable or porous substrates, use ROCKBOND PRIMER LATEX (RB PL) to penetrate, consolidate, strengthen and seal the surface. With a brush or a soft broom, brush the latex completely and evenly over the surface. Work the latex well into the substrate. Pay particular attention to the edges of the repair, and brush the liquid at least 25mm beyond the repair area. Brush out any puddles, and let the latex dry out, usually 15 to 30 minutes depending on conditions.

To prime the substrate and to enhance the bond, apply a second coat of the latex to the first coat. Normally, 1 litre of the ROCKBOND PRIMER LATEX will treat 5m<sup>2</sup> of concrete surface with a two coat application.

Shutters must be impermeable to the passage of water, and strong enough to contain and support the grout. Use ROCKBOND CURE (RB C) to make porous shutters moisture proof, and for use as a shutter release agent.

For the filling of voids, sufficient hydrostatic head must be given to the material to enable it to flow completely through the cavity to be filled. Ensure that sufficient material is available to complete the operation in one continuous pour.

Once the material is in place and has gained sufficient strength, apply ROCKBOND CURE (RB C) at the rate of 10m<sup>2</sup>/litre. During adverse curing conditions, repeat the procedure.

#### **TECHNICAL DATA:**

ROCKBOND SUPER DENSITY (3600) GROUT (RB SD3600G)

TYPICAL DATA at 8% water/powder ratio at 20°C

CONSISTENCY: Flowing grout CONSISTENCY LIFE: 30 minutes

MINIMUM SET DENSITY: 3600kg/m<sup>3</sup>

MINIMUM COMPRESSIVE STRENGTH:

1 7 28 Days 25 55 80 MPa

YIELD: 25kg of grout powder yields 7.50 litres of Super Density (3600) Grout 1m<sup>3</sup> Super Density (3600) Grout requires 3.350 tonnes of grout powder.

#### ROCKBOND SUPER DENSITY (3600) GROUT AND SUPER DENSITY (4000) GROUT,

# TECHNICAL DATA CONTINUED...

ROCKBOND SUPER DENSITY (4000) GROUT (RB SD4000G)

TYPICAL DATA at 7% water/powder ratio at 20°C

CONSISTENCY: Flowing grout CONSISTENCY LIFE: 30 minutes

MINIMUM DENSITY: 4000kg/m<sup>3</sup>

#### MINIMUM COMPRESSIVE STRENGTH:

1 7 28 Days 20 50 80 MPa

YIELD: 25kg of grout powder yields 6.25 litres of Super Density (4000) Grout 1m³ Super Density (4000) Grout requires 4.050 tonnes of grout powder.

## HEALTH, SAFETY AND STORAGE:

ROCKBOND SUPER DENSITY GROUT powders are non toxic and safe to use. However, use the same precautions as with any cementitious product: wear goggles, protective clothing and a dust mask while mixing and applying the material. Consult the relevant MSDS for further details. Store in a cool, dry, dark place.

#### **FURTHER INFORMATION:**

Should you require further information on this product, or details of other ROCKBOND SPECIAL CONCRETE PRODUCTS, then please do contact our Technical Department:

Gilbert Cox BSc, Technical Director.

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# **IMPORTANT NOTE:**

ROCKBOND SCP LTD provides the above information in good faith and without warranty. The data represents typical values which can be updated at any time, and this information supersedes previous issues. No liability can be accepted for any damage or loss arising from the use of ROCKBOND SCP LTD literature or its products, because the company has no continuous control on how the products are mixed, placed or cured.

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