

DuraGrout® 555

High strength, cement-based, shrinkage compensated grout

Description

DuraGrout 555 is a pre-blended cement-based powder. When mixed with water, it provides grouting mortar with excellent flow properties. After drying, it gives a durable, high compressive strength, impermeable & chloride free non-shrink grout. **DuraGrout 555** is specially formulated to be used as a bedding and precision grouting mortar at thickness > 50 mm.

Features and benefits

- Specially formulated for deep sections grouting.
- High early and ultimate strength. Allow for rapid installation.
- Good bond strength to concrete and steel.
- Extremely dense low permeability grout.
- Adjustable consistency from fluid to trowel applied consistency.
- Suitable for use in hot weather conditions.
- Improved durability.
- Non-shrink.

Recommended for

DuraGrout 555 is used as bedding and grouting mortar in the following applications:

- Bridges' bearing pads.
- Pile caps treatment.
- Anchor bolts and crane rails.
- Generators, milling machines & turbines base plates.

Composition

DuraGrout 555 is composed of high strength Portland cement, compound of selected additives, well graded fillers and aggregates.

Packaging

DuraGrout 555 is available in 25 kg bags.

Coverage

12.2 liter/25 kg bag.

Technical data

Mixed density	2.2 kg/liter
Compressive strength	>20 N/mm ² @ 1 day
	>30 N/mm ² @ 3 days
	>45 N/mm ² @ 7 days
	>55 N/mm ² @ 28 days
Flexural strength	>8 N/mm ² @ 28 days
Bond to concrete	>2 N/mm ²
Pot life	45 minutes @ 20°C
Application thickness	>50 mm
Appearance	Grey powder

Surface preparation

- Substrates must be rough, clean, sound, dust free and un-contaminated.
- Wash the substrate with water to provide saturated surface dry condition prior to grouting application.
- Bolt holes and pockets, if any, should be free of standing water. Use compressed air to drain out bolt holes and pockets. Steel base plates and anchor bolts must be clean and un-contaminated.

Mixing

	DuraGrout 555	Water
Fluid consistency	25 kg	4.00±0.25 Liter
Flowable consistency	25 kg	3.50±0.25 Liter

- **DuraGrout 555** bags should be stored in shaded area before use.
- To ensure proper mixing, a mechanically powered mixer or low speed drill fitted with suitable paddle should be used.
- Damp down the inside of the grout mixer with water prior to mixing the first batch.

Ensure that the mixer is damp but free from standing water.

- In hot weather, use chilled water. The temperature of the mixed mortar should not exceed 30°C. In cold weather, use warm water. The temperature of the mixed mortar should be above 10°C.
- Add the premeasured quantity of water into the mixer and then add the powder component slowly while mixing.
- Mix for 5 minutes minimum till a fully homogeneous mortar is achieved without segregation or bleeding.

Application

- Formwork should be fixed tightly. Shade the area to be grouted from direct sunlight. Temperature of the elements coming in contact with the grout should be between 10°C and 35°C.
- Do not pour **DuraGrout 555** in direct sunlight or if the ambient temperature is below 5°C.
- **DuraGrout 555** should be poured immediately while it is still fresh. It should be poured continuously. Should any delay occur, do not add water.
- **DuraGrout 555** can be poured manually or using a suitable pumping machine.
- In order to assist the flow of the grout, it is recommended to use metal strap laid in the formwork prior to grout pouring to aid the flow of the grout for a greater distance. Do not use mechanical vibration.
- Pour the grout manually from one side allowing 15 cm hydrostatic head and 10 cm clearance between the side of the formwork and the base plate edge.
- On the opposite side, allow 5 cm clearance between the side of the formwork and the base plate edge.
- A gentle spreading action with the metal strap may take place.
- Avoid exposed shoulders as they may crack or de-bond due to the difference in

temperature between the grout under the base plate and the exposed shoulder.

- If shoulders are required, they should be anchored to the substrate to minimize forming cracks or de-bonding. Keep shoulders as small as possible.

Curing

DuraGrout 555 is cement-based material. It should be cured using good concrete curing practice. Good curing is very important. Always cure with tap water.

At low temperatures (below 10°C), warm water is recommended to achieve the early strength. Formwork striking is to be delayed as necessary.

At high temperatures (above 35°C), cold water is recommended (less than 20°C).

Keep damp for 5 days. Cover the grout with wet hessian covered with polyethylene sheet.

Important notes

- The quantity of water may vary slightly depending on mixing method and weather conditions. Do not use water in an amount that will cause bleeding or segregation to the mixed grout
- Setting time/strengths are affected by many factors such as: mixing method, water addition, weather conditions (temperature & humidity) and curing.
- **DuraGrout 555** is used for grouting application thickness between 50 - 180 mm thickness. If smaller grouting thickness is required consider using **DuraGrout 525**.
- For greater grouting thickness, add 10-12 kg of 8-12 mm well graded washed aggregate to each 25 kg bag of **DuraGrout 555**.

Cleaning

Clean tools with water immediately after use. Hardened materials should be cleaned mechanically.

Storage and shelf life

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To maintain its quality and suitability for use, the product should be stored in its unopened packaging, off the ground on pallets or similar structures, in a cool and dry environment. When stored under these recommended conditions, the product remains suitable for use for 12 months from the manufacturing date stated on the packaging.

Health and Safety

This product contains cement which may cause skin irritation. It may cause allergic skin reaction and eye damage. Avoid breathing dust. Wear protective gloves, eye goggles and clothing. In case of skin contact, wash with plenty of water. In case of eye contact, rinse continuously with water for several minutes and seek medical attention. Dispose excess material to special waste collection point in accordance with local & national regulation. Keep out of reach of children.

For further information, please ask for Safety Data Sheet for this product.

The most up-to-date TDS can be obtained from ACC Customer Service Department, or downloaded from our website: www.acc.com.eg.

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- Waterproofing.
- Flooring.
- Tile Adhesives & Grouts.
- Concrete Repair.
- Non-Shrink Grouts.
- Bonding Agents.
- Exterior Façade Coatings.
- Premixed Fairing Coats, Renders & Mortars.
- Putties (stucco).
- Sealers & Emulsion Paints.