

## DuraGrout® 525

### High strength, cement-based, shrinkage compensated grout

#### Description

**DuraGrout 525** is a pre-mixed cement-based powder. When mixed with water, it provides grouting mortar with different consistencies from fluid to trowelable consistency. After drying, it gives a durable, high strength, impermeable, chloride free non-shrink grout for supporting machinery and equipment.

**DuraGrout 525** is specially formulated to be used as a bedding and precision grouting mortar at thickness between 20 and 80 mm.

#### Features and benefits

- Early strengths development.
- Good bond strength to concrete and steel.
- Impermeable.
- Provides versatility placement consistency: pour, pump or dry pack
- Excellent workability at high ambient temperature.
- Improved durability. Contains silica fume.
- Non shrink.

#### Recommended for

**DuraGrout 525** is used as bedding and grouting mortar in the following applications:

- Bridges' bearings and steel structures' plates.
- Anchor bolts and crane rails.
- Generators, machineries, milling machines & turbines.
- Precast units.

#### Composition

**DuraGrout 525** is composed of high strength Portland cement, special quartz sand, silica fume and compound of selected special additives.

#### Packaging

**DuraGrout 525** is available in 25 kg bags.

#### Coverage

13.5 liter/25 kg bag.

#### Note:

ACC Construction Chemicals, L.L.C.

Headquarters & factory: Plot (8), Block (32), 2<sup>nd</sup>. Industrial Zone, Borg Al Arab City, Egypt.

Tel./fax: 035226004 – Customer service: 01288593311 – email: contact@acc.com.eg

Coverage is affected by quantity of water addition.

#### Technical data

Mixed density	2 kg/liter
Compressive strength	>20 N/mm <sup>2</sup> @ 1 day
	>30 N/mm <sup>2</sup> @ 3 days
	>45 N/mm <sup>2</sup> @ 7 days
	>55 N/mm <sup>2</sup> @ 28 days
Flexural strength	>8 N/mm <sup>2</sup> @ 28 days
Bond to concrete	>2 N/mm <sup>2</sup>
Pot life	45 minutes @ 20°C
Application thickness	20-80 mm
Appearance	Grey powder

Note: The above strengths are affected by many factors such as water addition, mixing method, weather conditions and curing.

#### Surface preparation

Substrates onto which the grout is to be poured 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.

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.

#### Mixing

**DuraGrout 525** bags should be stored in shaded area before use.

	<b>DuraGrout 525</b>	Water
Fluid consistency	25 kg	3.6±0.25 Liter
Flowable consistency	25 kg	3.3±0.25 Liter
Trowelable consistency	25 kg	3.0±0.25 Liter

- Mix mechanically using powered grout mixer. 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, lumps-free mortar is achieved without segregation or bleeding.

### Application

- **DuraGrout 525** should be poured immediately while it is still fresh. It should be poured continuously. Should any delay occur, do not add water.
- **DuraGrout 525** 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.
- 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

Immediately cover all exposed grout with damp hessian. Good curing is very important. Always cure with tap water. 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.
- Compacting by rodding gently and tapping of formwork sides is recommended. Do not use mechanical vibration.
- Setting time/strength are affected by many factors such as: mixing method, water addition, weather conditions (temperature & humidity) and curing.
- When bulk grouting is required, consider adding 5 – 10 mm clean dry aggregate. The approximate quantity is 10 – 15 kg of aggregate per 25 kg bag of **DuraGrout 525**. The exact quantity could be confirmed by site trials.

### 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](http://www.acc.com.eg).***

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- Exterior Façade Coatings.
- Premixed Fairing Coats, Renders & Mortars.
- Putties (stucco).
- Sealers & Emulsion Paints.