

CAPGROUT HS

HIGH STRENGTH NON SHRINK STRUCTURAL GROUT

DESCRIPTION

CAPGROUT HS is exceptionally high strength ready to use grout in powder form, which requires only on site addition of water to produce a shrinkage compensated grout of predictable performance.

COLOUR

Light Grey.

USES

CAPGROUT HS is formulated to use as dry pack, plastic and flowable consistency for bedding, grouting and precision bearing operation such as

- Turbines, Generators and Compressor.
- Machine base plate of all types.
- Anchoring of guardrails.
- Column base plates.
- Bridge bearings.
- Crane Rails.

ADVANTAGES

- Shrinkage compensated.
- High flow, High density.
- One-step grout, ready to use, only addition of water required to obtain desired consistency.
- Early strength development.
- Micro silica content enhances strength and durability.
- Contain no added chlorides, iron or gypsum. Will not rust or harm metal on contact.

APPLICABLE STANDARDS/TEST METHODS

ASTM C-1107 , ASTM C-827 ,ASTM C-230
CRDC-226, CRDC-227

APPLICATION INSTRUCTIONS

Surface preparation:

Concrete surface must be structurally sound, clean, and free of loose or deteriorated concrete particles, dust, dirt and other contaminants. Steel or other surfaces must be clean and free of paint, dust, oil, rust and other contaminants. Smooth substrates must be abraded to ensure proper bonding. Shim and anchor the support elements to prevent movement. Saturate prepared area with potable water for minimum 12 to 24 hours before

Application. Remove excess water from holes and voids. Use oil free compressed air to blow out bolt holes and pockets as necessary.

Forming:

Ensure that the formwork is secure and watertight to prevent movement and leakage during placing and curing of grout. This can be done by using foam rubber strips or mastic sealant beneath the constructed formwork and between joints. The areas should be free of excessive vibration. Shut down adjacent machinery until the grout has hardened.

Mixing:

CAPGROUT HS requires only potable water for mixing. Set up mixing equipment near the grouting area. Dampen the inside surface of the grout mixer. Add 90% quantity of specified water into the mixer. Add slowly **CAPGROUT HS**. Add additional water while mixing to bring to the desired consistency. Mix the batch for at least four minutes until a smooth uniform, lump free consistency is achieved. Place the grout within five minutes of mixing. Continue mixing additional batches as necessary to maintain a continuous grout flow in the forms. Do not re-tamper **CAPGROUT HS**.

Application:

Mix **CAPGROUT HS** in sufficient quantities to ensure continuous flow at the time of placement. Maintain a minimum 6-inch head of pour able grout mix, to allow for grout flow, proper filling and air venting. **CAPGROUT HS** can be pumped with a heavy-duty progressive cavity or diaphragm type pump specifically designed for the purpose. On the side where the grout has been poured, allow 15 cm clearance between the side of the form and the base plate of the machine. Protect grouted areas from sun and wind during hot weather and use cold water for mixing. At pour able consistency, use chain rods or tamping to compact grout and remove voids.

High points must be adequately vented to allow entrapped air to escape; the exposed grout surface should be restrained to achieve optimum strength.

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For thicker section of more than 150 mm thickness **CAPGROUT HS** can be extended by clean dust free Pea Gravel, using up to 10 kg gravel per bag of **CAPGROUT-HS** addition of gravel may reduce the compressive strength down to 85 % of neat grout.

CURING

Immediately after removal of formwork, cure the **CAPGROUT-HS** using standard curing procedures. To prevent rapid water loss, apply a membrane-curing compound Curacoat-P or Curacoat-R or cover with wet burlap.

Note

- Handle **CAPGROUT-HS** like concrete. Do not exceed limitations set by the ACI on placement of concrete.
- Exposed finished grout must be cured.
- Do not overwork , avoid using mechanical vibrator.
- Do not add any cement or any other additives to **CAPGROUT-HS**.
- Do not re temper grout after initial mixing.
- Do not over water.

PROPERTIES

| Properties at 25°C | Consistency | | |
|---|-------------|-------------|-------------|
| | Plastic | Flow able | Dry pack |
| Mixing water liter; per 20 kg bag | 2 to 2.10 | 2.10 to 2.2 | 1.8 to 1.88 |
| Flow % as per ASTM C-230, CRDC-226 (Flow table) | 100 to 125 | 125 to 145 | N.A |
| Compressive strength kg/cm ² , ASTM C109, CRDC-227 | | | |
| 1 st day | 380 | 350 | 450 |
| 3 rd day | 520 | 500 | 500 |
| 7 th day | 680 | 660 | 700 |
| 28 th day | 780 | 750 | 800 |
| Early age height change %; ASTM C-827 | 0 to 4 | 0 to 4 | 0 to 4 |
| *Bleeding % | < 2 | < 2 | < 2 |
| Unit weight; kg/m ³ | 2.44 | 2.40 | 2.45 |
| Yield m ³ /bag | 0.009 | 0.0093 | 0.088 |
| Flexural strength @ 28 days (Mpa) | | 14.0 | |

Above figures may have a variance of $\pm 10\%$

TECHNICAL SERVICE:

Our Technical Service Department is available at any time to advise you in the correct use of this product or any other Ahlia products.

Note : The information presented herein is based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.

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