



CS-100 NON-SHRINK GROUT

DESCRIPTION:

CS-100 Non-Shrink Grout is a pre-blended Portland cement grout containing non-ferrous additives and non-shrinkage compounds. CS-100 Non-Shrink Grout only requires the addition of water for immediate use. CS-100 Non-Shrink Grout will not rust or stain and does not contain any corrosive additives such as calcium chloride. The hardened grout is dense, crack resistant and dimensionally stable. It is highly resistant to oil, some chemicals and moisture.

USES:

CS-100 Non-Shrink Grout is used for every phase of structural grouting which includes structural steel, base plates, anchor bolts, bridge bearing seats, machinery bases, tuck pointing, masonry joints and a wide range of concrete repair applications.

CHARACTERISTICS:

CS-100 Non-Shrink Grout maintains its volume by the addition of a gassing agent which reacts with the alkaline cement paste in a controlled manner commencing with the addition of the water. This regulated reaction produces a gas (in its molecular form) which is dispersed as minute bubbles throughout the entire mix inducing a homogeneous expansion. This slight expansion produces a slight pressure against vertical confining surfaces as described by ACI and Corps of Engineers recommendations for foundation grout. This expansion acts as insurance for maximum bearing contact with the structural member being grouted.

LIMITATIONS:

CS-100 Non-Shrink Grout is designed to harden in full and total contact with all confining surfaces, and to remain permanently stable. Do not use in areas of extremely high vibration, or where service temperatures will exceed 176°C (350°F).

COVERAGE:

CS-100 Non-Shrink Grout is packaged in 25 kg (55lb) bags and will yield approximately 0.5 cubic feet or 0.014 cubic meters per bag.

PROPERTIES:

Flowable Compressive Strength (2" Cubes Confined)

| | Plastic | Flowable |
|--------------------|-----------|-----------|
| 1 Day, MPa (psi) | 25 (3625) | 14 (2030) |
| 3 Days, MPa (psi) | 44 (6380) | 23 (3335) |
| 7 Days, MPa (psi) | 54 (7830) | 25 (3625) |
| 28 Days, MPa (psi) | 66 (9570) | 54 (7830) |

Flexural Strength ASTM C78

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|--------------------|---------|---------|
| 28 Days, MPa (psi) | 6 (925) | 6 (925) |
|--------------------|---------|---------|

Bond Strength ASTM C882

| | | |
|------------------|----------|----------|
| 1 Day, MPa (psi) | 8 (1150) | 8 (1150) |
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SURFACE PREPARATION:

Surface must be structurally sound, clean, free of loose or deteriorated concrete, dust, dirt, and other contaminants. When substrate is not absorptive, abrade as necessary to ensure proper bonding. When temperature is above 2°C (35°F), prewet the prepared area with potable water immediately before application. All excess water is to be removed and the substrate left in a saturated, surface damp condition at the time of grouting.

FORMING:

Construct forms to rigid and water tight. Provide venting or air relief openings to avoid air entrapment. Construct forms with sides one to two inches above the base plate, allowing a "head" of grout to flow to the proper level. Seal wood forming surfaces to prevent absorption of moisture from the CS-100 Non-Shrink Grout. Anchor forms tightly to prevent movement.

MIXING INSTRUCTIONS:

CS-100 Non-Shrink Grout should be mixed mechanically (slow speed) to ensure even consistency. The water must be added prior to the addition of the dry grout. Always use the minimum water required, and should not exceed a maximum of 4.5 litres per 25 kg bag. CS-100 Non-Shrink Grout may be pumped, poured or dry packed in place. For a Dry Pack Mix use approximately 2.5 litres per 25 kg bag. For a Plastic Mix use approximately 3.5 litres per 25 kg bag. For a Flowable Mix use approximately 4.5 litres per 25 kg bag. Always use the minimum amount of water required.

APPLICATION TECHNIQUES:

Dry Pack: This mix should contain only enough water to form a cohesive ball when squeezed tightly in the hand. CS-100 Non-Shrink Grout must be rammed into place with a metal or hardwood tamping tool. Avoid using too much water since placed material will tend to sag if too damp.

Plastic: This mix can range in consistency from slightly dry to that of wet masonry mortar. CS-100 Non-Shrink Grout may be rodded into place or trowelled in to areas where freedom of movement is permitted.

Flowable: This mix should have a thick soupy consistency, thorough mixing is essential to avoid lumps in the grout. Mix sufficient quantities to ensure a continuous flow at time of placement. Pour grout to allow air to vent and to avoid air entrapment. Maintain a minimum six inch "head" to allow grout flow, proper filling, and venting. CS-100 Non-Shrink Grout may be used with low pressure cement grout pumping equipment or may be hand rodded and chained into place.

CURING TECHNIQUES:

Immediately following form removal, cure the CS-100 Non-Shrink Grout using standard ACI curing procedures. To prevent rapid water loss, apply a membrane curing and sealing compound, or cover with wet burlap for 24 hours.

CLEAN UP:

Clean application tools and mixing equipment with water immediately following use.

WARRANTY:

Seller warrants that the product described on the face hereof has been manufactured of selected raw materials by skilled technicians. Neither seller nor manufacturer shall be responsible for any claims resulting from the failure to utilize the product in the manner in which it was intended and in accordance with instructions provided for use of product. The only obligation of either the seller or manufacturer shall be to replace any quantity of this product which proved to be defective. Neither seller nor manufacture assumes any liability, loss, or damage resulting from use of this product.

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