



Cost Effective Technologies

CENTROX™ Grout C

Shrinkage Compensated High Performance Cementitious Grout

PRODUCT INFORMATION BULLETIN

JANUARY 2010

DESCRIPTION

Centrox™ Grout C is a non-shrink, non-metallic, free flowing cementitious high strength structural grout.

Centrox™ Grout C is a volume stable grout containing a balanced blend of Portland cement, graded silica sands, flow improvement compounds, and a dual shrinkage compensating system.

Centrox™ Grout C is supplied as a dry powdered product which only requires mixing with water for use in grouting a wide range of applications with gap widths of 10-125 mm.

USES

- * Micro-concreting for concrete repair and construction work
- * Heavy duty base plate grouting
- * Machine bedplate
- * Crane rail soleplates
- * Bridge bearings
- * Structural column grouting
- * Cavities, gaps and recesses
- * Anchor bolts
- * For application where gas generation curing plastic expansion is undesirable e.g. hydrogen generation in underground mine applications

ADVANTAGES

- * Dual expansion - no shrinkage
- * High early and ultimate strength
- * Excellent flow characteristics
- * Pumpable
- * Long work time
- * Chloride free
- * Non-staining
- * Expansion process is not facilitated by hydrogen gas generation.
- * Class "C" grout according to MP 20, Part 3 - 1977
- * Effective life of correctly applied product greater than 10 years.

PROPERTIES

Potlife at 20 °C: 30-40 minutes

Initial Set: 5 hours at 20 °C (flowable)

Final Set: 7 hours at 20 °C (flowable)

| Consistency | Water Addition | Compressive Strength, MPa (AS 2073) | Yield (Litres) |
|-------------|----------------|-------------------------------------|----------------|
| Trowellable | 2.5-2.7 | 55 | 83 |
| Flowable | 3.3-3.5 | 43 | 75 |

| | (Litres) | 1 day | 14 days | 28 days | |
|-------------|----------|-------|---------|---------|------|
| Trowellable | 2.5-2.7 | 55 | 83 | 91 | 10.4 |
| Flowable | 3.3-3.5 | 43 | 75 | 82 | 10.9 |

Notes:

1. the above tests were carried out at 20°C;
2. compressive strengths were obtained at bottom end water, e.g.: the 28 day strength of 91 MPa for trowellable consistency was obtained at 2.5 liters water per 20 kg bag of **Centrox™ Grout C**.

INSTALLATION (Refer MSDS before applying)

Surface preparation

Centrox™ Grout C must be applied to a clean surface free of contaminants. Bolt holes and fixing pockets should be free of dirt and debris. **Centrox™ Grout C** must be applied to a wet puddle free surface.

Mixing Equipment

Mechanical grout mixer is recommended.

Application

Centrox™ Grout C is placed by either gravity flow or by pump. Mixed grout is poured one side of the void to avoid air entrapment. Grout is best poured over short distances to ensure this. When pumping **Centrox™ Grout C**, a positive displacement pump is recommended.

To facilitate grout compaction, use tamping, rodding or flexible strapping. Do not vibrate as this will cause segregation. Recommended thickness of **Centrox™ Grout C** in one pour is 20 to 60 mm. Minimum thickness is 10 mm, maximum – in one pass is 125 mm.

Curing

Centrox™ Grout C exposed areas should be thoroughly cured. This should be done by the use of a concrete curing membrane, continuous application of water or covering with wet hessian.

PACKAGING, SHELF LIFE and STORAGE

Centrox™ Grout C is available in 20 kg moisture resistant bags.

Centrox™ Grout C has a shelf life of 12 months if kept in a dry store in sealed bags.