

PLASTICISED EXPANDING GROUT ADMIXTURE

DESCRIPTION

Congrout Admix is a powdered admixture for use in cementitious grouts and concrete. It is formulated to produce improved grout quality and increased durability, while overcoming problems of settlement and plastic shrinkage using a gaseous expansion mechanism.

USES & ADVANTAGES

Congrout Admix should be used as a grout admixture for all cementitious mixes where restrained expansion is required. Typical uses are under plate and bed grouting, space grouting, anchor bolt and duct grouting.

Advantages include:-

- Provides positive gaseous expansion to counteract shrinkage in cementitious grouts.
- High flow grout mixes obtained using **Congrout Admix** are easier to pump or place.
- Low water/cement ratio obtainable with **Congrout Admix** reduces permeability, improves strength and durability.
- Produces cementitious grouts with excellent non-corrosive bonding and maximum bearing capacity.
- **Congrout Admix** contains no iron, chlorides or other deleterious materials.

PROPERTIES

| | |
|--------------------------|---------------------|
| Appearance: | Grey powder |
| Apparent Density: | Approx. 0.7 kg. /l. |
| Chloride Content: | Nil |

MIXING

The required quantities of sand, cement and **Congrout Admix** are batched together and mixed into the correct volume of water, using a mechanically powered mixer. Small quantities can be mixed using a slow speed electric drill fitted with a high shear paddle. Larger quantities require a purpose-designed grout mixer to achieve thorough mixing. Mix continuously for 5 minutes to ensure that a smooth homogeneous grout is obtained. It is important that sufficient materials, equipment and personnel are available to enable the grouting operation to be carried out continuously. Storage or holding facilities for the grout may be useful, however, they should be fitted with some means of agitation to maintain fluidity.

APPLICATION

Areas to be grouted require thorough preparation in the conventional manner, to provide a clean, sound, substrate free from defects or contamination. Pre-wet the surfaces

to be grouted preferably 24 hours before grouting, removing excess free water and then grout. The grout should be poured, pumped, injected or trowelled into place within 30 minutes of mixing, to achieve optimum expansion characteristics.

Addition Rate:

| | |
|---|---|
| Neat cement grouts | 250 g. Congrout Admix per 50 kg. cement equivalent to 0.5% by weight of cement. |
| 1 : 1 Cement : sand grouts | 250 g. Congrout Admix per 50 kg. cement equivalent to 0.5% by weight of cement. |
| Grouts having : Cement Ratio of 2 : 1 or higher | 500 g. Congrout Admix Sand per 50 kg. cement equivalent to 1.0% by weight of cement. |

Yield:

| OPC | 0.5 mm Sand | Water | Congrout Admix | Approx. Yield |
|--------|-------------|----------|----------------|---------------|
| 50 kg. | Nil | 22 litre | 250 gram | 36 litre |
| 50 kg. | 50 kg. | 24 litre | 250 gram | 57 litre |
| 50 kg. | 100 kg. | 26 litre | 500 gram | 80 litre |

Water Content:

The plasticising action of **Congrout Admix** enables high flow grout mixes to be produced, using low water/cement ratios. Alternatively, water contents can be reduced while maintaining workability - a water reduction of 10% - 15% is typical.

Loss of Flow:

Cementitious grout mixes containing **Congrout Admix** have slightly extended placement times without detriment to strength development.

Expansion:

Unrestrained expansion is typically between 1-4%. The controlled positive expansion in wet grout overcomes plastic settle according to ASTM C-827. Expansion takes place between 15 minutes & 2 hours after mixing.

CURING

Good curing is essential on all exposed surfaces particularly in dry, sunny conditions. Failure to do so will reduce strength and durability. Immediately after completion, apply two coats of **Corcure 90** curing/membrane to all exposed surfaces. Alternative methods are water ponding, mist spraying and the like, but in all cases these must be maintained for at least 7 days. Keep the grout above 8°C at all times during application and cure.

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OVERDOSING

Slight overdosing will increase both workability and volume of gas liberated. Serious overdosing (2 - 3 times recommended values) causes retardation of set and strength development and frothing of the mix. In addition there is a major increase in expansion.

IMPORTANT NOTES

Congrout Admix's performance may be influenced by mixing procedures, cement properties adding of water and temperatures. Therefore tests on site should be undertaken.

Congrout Admix should not be used with cement containing Fly Ash.

DOSAGES

0.5 - 2% by weight of cement.

PACKAGING

Congrout Admix is supplied in 0.5 kg. packs or 15 kg. bags.

STORAGE & SHELF LIFE

Store in dry shaded conditions. The shelf life is at least 12 months if kept dry in original packaging. High temperatures and humidity may reduce shelf life.

HEALTH & SAFETY

Congrout Admix is non-hazardous, but work cleanly and wear protective clothing. In windy conditions wear a filter mask to avoid inhaling dust. Remove splashes from skin with water and in case of eye contact wash copiously with water.

TECHNICAL SERVICE

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

QUALITY ASSURANCE

ISO 9001 : 2008 verified by TUV Nord.

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