

A NEW GENERATION POLYCARBOXYLATE HYPERPLASTICISER

DESCRIPTION

Megaflow SCC represents a new modified generation of polycarboxylated hyperplasticisers specifically developed to achieve high performance concrete properties. **Megaflow SCC** combines the effects of electrostatic repulsion and steric hinderance. Electrostatic repulsion disperses the cement molecules whilst a static charge on the cement particles attracts ettringite molecules. The ettringite covers the cement particle surface acting as a barrier against crystallisation and hydration. **Megaflow SCC** is an effective dispersant, fluidifier and high range water reducing agent providing excellent rheological properties in concrete.

It is specifically intended for use in precast and ready mix concrete providing an exceptional fluidity, improving the flow properties of the mix by breaking up cement agglomerates and gives a higher slump retention than standard superplasticisers. **Megaflow SCC** conforms to the requirements of BS5075 Part 3 and ASTM C494 Type F and G, and BS EN 934 Part 2 Tables 3.1 & 3.2.

USES & ADVANTAGES

Megaflow SCC may be used in the following areas; precast concrete, ready mix concrete, self compacting concrete, pumped concrete, concrete for under water use, silica fume, blast furnace slag, and PFA modified concrete, light weight concrete etc.

Advantages include:-

- Lower permeability.
- Increased early & ultimate strengths.
- Increased flexural strengths.
- Better carbonation resistance.
- Reduced shrinkage & creep.
- Increased durability.
- May produce flowing or self compacting concrete.
- High workability with low water content.
- Low water/cement ratio (water reduction of up to 30%).
- Reduced cement.
- Improved surfaces.
- Retention of concretes workability.
- No segregation.
- Less vibration
- Reduction of curing cycle.
- Resistance to aggressive environments.

Note: Concrete workability - **Megaflow SCC** fluidified concrete remains workable for approximately 1-2 hours at 20°C. The duration of workability depends not only on the temperature but also on the type and brand of cement,

the nature of the aggregates, the method of mixing and transportation. When **Megaflow SCC** is added at normal dosages, it will not significantly affect the concrete's heat of hydration.

PROPERTIES

Appearance: Clear opaque brown liquid

Specific Gravity: 1.09 ± 0.02

Chlorides Content: Nil

BS EN480-10

DOSAGE RATES

The normal dosage range of **Megaflow SCC** is 500 ml to 1000 ml per 100 kg of cement. Other dosages may be used depending on the specific requirements. Trials should be undertaken to determine the optimum dosage.

EFFECTS OF OVERDOSING

Effects of overdosing are a function of the amount overdosed. In high workability concrete workability will increase and segregation may occur. Setting times may also be delayed. Consult Cormix if overdosing takes place.

DISPENSING

Megaflow SCC should be dosed via a recommended dispenser. Addition should be with the mix water.

Note: The optimal concrete plasticising effect (and therefore maximum mixing water reduction) is obtained if **Megaflow SCC** is added into the concrete after the first 50-70% of the water has been mixed.

COMPATABILITY

Do not use **Megaflow SCC** with any other admixtures, consult Cormix first. **Megaflow SCC** is suitable with all types of Portland cement and cement replacements such as silica fume, PFA, GGBFS & SRC. For use with special cements we recommend you consult Cormix first.

MIXING

Megaflow SCC should be added to the mixing water at the plant. If added directly to the truck mixer at site the concrete should be mixed at maximum speed for 5 minutes. For self compacting concrete a viscosity enhancer is recommended e.g. **Conmix VE**.

PACKAGING

Megaflow SCC is supplied in 200 litre drums or in bulk.

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STORAGE & SHELF LIFE

Megaflow SCC should preferably be stored protected from frost. If the product does become frozen it should be carefully mixed after thawing out, to restore it to its normal state. The shelf life is 12 months if stored properly in unopened original containers between 5°C - 30°C. Protect from direct sunlight & frost.

HEALTH & SAFETY

Megaflow SCC is an aqueous solution of materials which present no serious health hazard. However, as with all organic chemicals, normal industrial hygiene procedures should be adhered to and it is recommended that gloves and eye protection be worn when handling. In case of skin or eye contact, thoroughly irrigate with water and seek medical advice for eye contact or if skin irritation persists. In the case of accidental ingestion, wash mouth out with water and seek immediate medical attention.

Megaflow SCC is non flammable, but if involved in a fire the dry residue could support combustion and give off fumes. In such a case, keep drums cool with water spray and remain upwards from wind to avoid fumes.

In case of spillage, the floor area may become slippery and should be washed thoroughly with cold water to drain. For further information consult Cormix International Limited.

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.

CONTACT DETAILS

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