



AdCon SP 450M

Superior High Range Water Reducer for High Quality Concrete

Description:

AdCon SP 450M is a liquid concrete superplasticizer that has been developed to allow concrete to attain particularly high performance in both the plastic and hardened states. It can be utilized to effect large water reductions to achieve high early and subsequent strength.

Advantage

- High compressive strength concrete especially at early ages.
- Low water/cement ratio, excellent durability.
- Good surface finish, providing highly aesthetic concrete appearance.
- Plastic concrete exhibits high cohesion, fluidity and flow ability.
- Savings in energy consumption when steam curing is employed.

Uses

- Reinforced and pre-stressed precast elements.
- Bridge decks and structural elements.
- Precast or in-situ structures.
- Provides good pumpable concrete.
- Recommended for piling and mass concrete pours with improved cohesion.
- High range water reducing property allows the production of high-quality concrete without excessive cement contents insures improved durability.

Properties

Appearance	Dark Brown liquid
Specific Gravity	Typically, 1.19± 0.01 @ 25° C
Chloride Content	Nil
Air Entrainment	Typically less than 2%

Standard Compliance

AdCon SP 450M will conform to types A and G materials of ASTM designation C494.

Standard Compliance

Where the main requirement is to improve strength, initial trial should be made with normal concrete mix designs.

The addition of the admixture will allow the removal of water from the mix whilst maintaining workability after initial trials, minor modification to the overall mix design may be made to optimize performance.

Typical Dosage

The optimum dosage of AdCon SP 450M to meet specific requirements should always be determined by trial mixes using the materials and conditions that will be experienced in use. For normal concrete a dosage among 1 % to 2.5 % by weight of cement may be used, and for high strength concrete, a dosage of up to 3.2% by weight of cementitious material can be used.



Compatibility

AdCon SP 450M is compatible with other CTC admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be mixed together prior to addition. The resultant properties of concrete containing more than one admixture should be assessed by trial mixes. **AdCon SP 450M** is suitable for use with all types of Portland cement and cement replacement materials such as PFA, GGBFS and micro silica.

Effect of Overdose

An overdose of double the amount of **AdCon SP 450M** will result in an increase in retardation. Provided that adequate curing is maintained, the ultimate strength of the concrete will not be impaired by increased retardation and will generally be increased.

Over dosage may also cause increased air entrainment, which will tend to reduce strength. The degree of this effect will depend on the particular mix design and overdose level.

Dispensing

The correct quantity of **AdCon SP 450M** should be measured by means of a recommended dispenser. Normally, the admixture should then be added to the concrete with the mixing water to obtain the best results. **AdCon SP 450M** is not recommended to be added to the dry aggregates or cement; it should always be added to the wet mix conditions. Full blending of the admixture and the concrete should be ensured by mixing at high speed for a period at least three minutes.

Packaging

AdCon SP 450M is supplied in 210-liter drum & 1000-liter bulks.

Shelf life/ Storage

AdCon SP 450M has a shelf life of 12 months provided the temperature is kept within the range of 2° to 50 °C.

Safety precautions

AdCon SP 450M does not fall into the hazard classification of current regulations. However, it should not be swallowed or allowed to come into contact with eyes. Suitable protective gloves and goggles should be worn.

Splashes on the skin should be removed with water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately – do not induce vomiting.

Technical Service

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

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