



AdCon SP 500

Superior High Range Water Reducer for High Quality Concrete

Description:

AdCon SP 500 is a high-performance superplasticizer designed specifically to impart high workability to concrete containing MicroSilica, while possessing excellent slump retention properties. It can also be used in normal concrete mix designs where high workability is required for long periods, to aid placement, such as piling concrete, congested areas of reinforcement, etc.

AdCon SP 500 is based on selected raw materials and is manufactured under controlled conditions to give a consistent product. It is formulated from specially designed polymeric sulphonated materials and naturally derived products.

Advantage

- Effective over a wide range of cement contents and W/C ratios.
- Aids concrete cohesion.
- Imparts excellent slump retention over prolonged periods of time.
- Allow greater time for placement and compaction, especially in concrete containing SCM.
- Can be used to achieve large water reductions in concrete, to obtain high early and ultimate compressive strength gains, as required in precast/prestressed concrete.

Typical Dosage

Appearance	Dark Brown liquid
Specific Gravity	Typically 1.175 ± 0.02 @ 25° C
PH	7-9
Chloride Content	Nil
Air Entrainment	Typically less than 2 %

Standard Compliance

AdCon SP 500 will conform to types A, and G materials of ASTM designation C494.

Compatibility with other admixtures

AdCon SP 500 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.

Compatibility with cement

AdCon SP 500 is suitable for use with all types of Portland cements, Pozzolanic cement, and cement replacement materials (SCM).



Method of use

AdCon SP 500 is supplied ready for use. It should be added to the concrete mixes during the mixing process at the same time as the water. It should not be added directly to the cement.

For mixes containing MicroSilica AdCon SP 500 should be incorporated into the mix after the addition of the MicroSilica, at the same time or just after the mixed water.

Addition rate

The optimum dosages of AdCon SP 500 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 0.75 to 2.5% by weight of cement, and for high strength concrete, a dosage of up to 3.3% by weight of cementitious materials can be used.

Effect of Overdose

Overdosing of AdCon SP 500 will generally produce an increase in workability and a slight increase in air entrainment, which will be accompanied by a delay in the concrete setting time. However, provided the overdosed concrete is cured properly, the ultimate strength will generally be higher than the normal concrete. The effects of overdosing with respect to set retardation are increased when sulphate resisting cement (Type V) is used in the mix design.

Packaging

AdCon SP 500 is supplied in 1000 liters bulks.

Dispensing

The correct quantity of AdCon SP 500 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 result. AdCon SP 500 is not recommended to be added to the dry aggregates or cement; it should be always 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 of at least three minutes.

Shelf life/ Storage

AdCon SP 500 has a shelf life of 12 months provided the temperature is kept within the range of 2° to 50 °C.

Safety precautions

AdCon SP 500 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.

01/2025-CTC