

AdCon PC 400

High Performance Water Reducer for High Early Strength and High Fluidity Concrete

Description:

AdCon PC 400 is a high performance super plasticizing admixture based on polycarboxylic ether polymers designed to enable the water content of the concrete to perform more effectively. The effect can be used in high strength concrete and flowable concrete mixes, to achieve highest concrete durability and performance.

Advantages:

- Optimizes cement utilization.
- High density and impermeable concrete through very high water reduction.
- Improve shrinkage and creep behaviors.
- Minimizes segregation and bleeding problems by improving cohesion.
- Higher early and ultimate compressive strengths.
- Increase durability and resistance to aggressive atmospheric conditions through reduced permeability.

Main Applications:

- High strength and high performance concrete.
- Structures with congested reinforcement.
- Improves cohesion allows for use in mass concrete pours and piling.
- Self-Compacting Concrete.

Properties:

Appearance	Transparent
Specific Gravity	Typically 1.04 ± 0.01 at 25°C
PH	6.0 ± 1.0
Air Entrainment	Less than 1% at normal dosage
Chloride Content	Nil to BS 5075:1982

Standards Compliance:

AdCon PC 400 Complies with ASTM C 494 Types A & F.

Instructions for Mix Design:

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 guidance dosage of **AdCon PC 400** is 0.60 to 2.2 liter per 100 Kg of cementitious material in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of **AdCon PC 500M** to meet the performance requirement by using the materials and conditions in actual use.

Compatibility:

AdCon PC 500M is suitable for use with all types of Portland cements and cement replacement materials such as PFA, GGBFS and microsilica.

Effects of overdosing:

An overdose of **AdCon PC 400** will cause the following:

- Significant increase in retardation.
- Increase in workability.

Ultimate concrete strength will not be adversely affected and will generally be increased provided that proper concrete curing is maintained.

Dispensing:

The correct quantity of **AdCon PC 400** 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 PC 400** 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 of at least five minutes.

Packaging:

AdCon PC 400 is supplied in 1000 liter bulks.

Shelf Life/ Storage:

AdCon PC 400 shelf life is 12 months if stored at temperature between 2°C and 50°C.

Safety Precaution:

AdCon PC 400 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.

08/2022-CTC