

TECHNICAL DATA SHEET



**Concrete Admixture
With High Range of Workability.**



DESCRIPTION

SM5® CF31 is formulated from selected polymers specifically designed to enhance the water content performance in concrete. This improvement can be used to enhance workability, increase ultimate strengths, or reduce cement content while maintaining mix properties. **SM5® CF31** provides strong workability retention, making it particularly suitable for long-distance and hot weather concrete deliveries and ideal for ready-mix concrete.

APPLICATIONS

Long-distance and hot weather concrete deliveries.
Applications where high workability retention and retardation are crucial.
Production of high-quality concrete with improved durability and water tightness.

CHARACTERISTICS & ADVANTAGES

- Achieves higher strength with the same cement content.
- Minimizes segregation problems by improving cohesion.
- Offers excellent slump retention properties.
- Improved workability reduces placing and compaction issues.
- Extends initial and final setting times of concrete, helping avoid cold joints.
- Enables cement savings without compromising strength specifications.
- Produces more durable concrete by significantly reducing permeability.

COMPATIBILITY

SM5® CF31 is compatible with all types of Portland cement and supplementary cementitious materials. It can be used alongside other CCC admixtures in the same concrete mix, provided they are dispensed separately.

STANDARDS

SM5® CF31 complies with ASTM C494, Types B, D, and G, depending on the dosage.

METHOD OF USE

SM5® CF31 should be added to the concrete mix along with the mixing water to achieve optimum performance. It is best dispensed using an automatic dispenser to ensure the correct quantity is added.

DOSAGE

The recommended dosage range is 0.3 – 0.80 liters per 100 kg of cementitious materials in the mix, including GGBFS, PFA, or microsilica.

EFFECTS OF OVERDOSAGE

Overdosing **SM5® CF31** may lead to:

Significant increase in retardation.

Enhanced workability. Ultimate concrete strength will generally increase, provided that proper curing is maintained.

SETTING TIME

The setting time varies with the dosage of **SM5® CF31** and is influenced by:

- The level of tricalcium aluminate in the cement.
- Ambient temperature, with lower temperatures delaying setting time.
- The use of multiple admixtures, which can affect setting time.
- Increased retardation when supplementary cementitious materials are used.

CLEANING

SM5® CF31 can be easily washed off with cold water.

PACKAGING

Available in 25-liter pails, 210-liter drums, and 1000-liter bulk supplies.

STORAGE

SM5® CF31 has a shelf life of 12 months when stored at temperatures between 2°C and 50°C. Contact the Technical Department for advice if storage conditions are exceeded.

HEALTH AND SAFETY

SM5® CF31 is not classified as hazardous. Avoid contact with skin and eyes. In case of eye contact, rinse immediately with plenty of water and seek medical advice. Refer to the Material Safety Data Sheet for more information.

FIRE

SM5® CF31 is nonflammable.

FOR TECHNICAL SERVICES

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End of Technical Data Sheet