Proset AF

Alkali-free liquid accelerator for wet-mix and dry-mix sprayed concrete
(Formerly known as Setcrete AF)

Description

Proset AF is a non-toxic, alkali-free liquid accelerator for wet-mix and dry-mix sprayed concrete. Varied dosages of Proset AF will provide the required setting time.

Applications

Wet-mix and dry-mix sprayed concrete applications such as:

- Quality inner lining.
- Initial and permanent support of surfaces in underground spaces.
- Slope and rock stabilization.
- Repair & renovation works.

Advantages

- Alkali-free, chloride-free and non-toxic.
- No ground water contaminations from alkali leachates.
- Improves the bond of shotcrete to the rock or concrete.
- Provides improved overhead spraying.
- Reduction in dust and rebound.

Standards

Proset AF complies with ASTM C1141/C1141M, Types I & II, Grade 9, Class A.

Compatibility

Cement:
Proset AF is recommended to be used in concrete mixes based on Ordinary Portland Cement (OPC) or Rapid Hardening Portland Cement (RHPC). The minimum cement weight per cubic meter of the concrete mix should be no less than 350 kg/m^3.

With the assistance of DCP Technical Service preliminary testing can be conducted for Proset AF compatibility with cements available to the job site.

Admixtures:
Proset AF is compatible with all DCP superplasticisers and other DCP admixtures. It is recommended DCP Technical Department should be contacted for advice.

Do not use other set accelerators in the concrete mix.

Technical Properties @ 25°C:

Colour:	Pale straw liquid
Specific gravity:	1.40 ± 0.1
pH: EN ISO787-9	2 - 5
Viscosity: ASTM D1084	300 ± 100 mPa.s (cp)
Chloride content: BS5075	< 0.1%
Setting time @ maximum dosage range:	
ASTM C1398	
Initial setting time	< 3 min
Final setting time	< 12 min

Method of Use

Dosage

Sprayed trials should be conducted to determine the optimum dosage of Proset AF to meet the performance requirements by using the materials and conditions in actual use.

Dosage of Proset AF will vary depending on the performance requirements of the sprayed concrete, cement type, age and content, temperature of the sprayed concrete, substrate and air, the water to binder ratio as well as the other admixtures and materials in the concrete mix.

Typical dosage is between 5.0 - 7.0 litre/100 kg of cementitious and cement replacement material, including PFA, GGBFS or microsilica, which can be used as a starting point for the trials.

Effects of Over Dosage

Overdosing of Proset AF will decrease the ultimate concrete strength.

Application

In the case of wet-mix and dry-mix sprayed concrete, Proset AF should not be added to the cement mixer or concrete mix, but through a liquid dispensing system that connects to the main hose right at the nozzle.

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In both sprayed concrete methods, the minimum cement weight per cubic meter of the concrete mix should be no less than 350 kg/m^3.

Cleaning

Proset AF can be washed with fresh cold water.

Packaging

Proset AF is supplied in 210 litre plastic drums and 1000 litre plastic bulks containers.

Storage

Proset AF has a shelf life of 3 months from date of manufacture if stored in a dry area out of direct sunlight and exposure to frost in original unopened container at temperatures between 5°C and 35°C.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

Cautions

Health and Safety

Proset AF is not classified as hazardous material.

Proset AF should not come into contact with skin and eyes. Goggles and gloves should be used.

In case of contact with eyes wash immediately with plenty of water and seek medical advice promptly.

For further information refer to the Material Safety Data Sheet.

Fire

Proset AF is nonflammable.

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- Concrete admixtures.
- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.