

Flocrete AW63 EX

Antiwash admixture system for underwater concrete



DESCRIPTION

Flocrete AW63 EX is concrete admixture formulated from selected polymers specially designed to prevent the loss of cement and fine particles during the placement of underwater concrete. It surrounds the cement particles by gel action to minimize the washout in the underwater cementitious applications.

APPLICATIONS

- » Underwater concrete applications.
- » Foundations and piles where high water table occurs.
- » To produce cohesive concrete mixes.
- » Fluid grouting that may have subject to washout.

ADVANTAGES

- » Higher concrete strength in the underwater concrete applications by significant minimizing the washout of cement particles.
- » Improve workability by reducing placing and compaction problems.
- » Minimizing segregation and bleeding problems by improving cohesion.
- » More durable concrete as a result of reduction in permeability and lower water to cement ratio.
- » Reduced pumping pressure.
- » Minimal effect on Setting time.
- » Compatible with other types of admixtures used in the same mix.

COMPATIBILITY

Flocrete AW63 EX can be used with all types of Portland cement and cement replacement materials. It is also compatible with other DCP admixtures used in the same concrete mix. If more than one type of admixture is to be used, they must be dispensed into the mix separately.

METHOD OF USE

Flocrete AW63 EX should be added after adding all of materials of concrete mix and should allow for 30 seconds extra mixing time.

TECHNICAL PROPERTIES:

Colour:	Clear to yellowish liquid
Specific gravity:	1.00 ± 0.03
Chloride content:	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

REDUCTION OF WASHOUT

To check the percentage of washout reduction, normally a comparison test should be done between control concrete mix without using Flocrete AW63 EX admixture versus concrete mix using Flocrete AW63 EX, fill a perforated basket with concrete mix and drop it through the water for 5 times and measure the weight loss on each time.

Normally up to 80% of washout reduction can be achieved by using the Flocrete AW63 EX comparing with control mix. ACI 304R, Chapter 8, "Concrete Placed Underwater" recommends certain basic mixture with max w/c ratio of 0.45 and a slump from 150 up to 230 mm with proportions such as:

- » Total cementitious materials 356kg/m³ or more
- » Pozzolans 15%
- » Fine aggregate content 45 - 55% by volume of total aggregate
- » Air content up to 5%.

PACKAGING

Flocrete AW63 EX is available in 25, 210 litre and bulks supply.

DOSAGE

The recommended dosage of Flocrete AW63 EX is 0.2 - 1.5 litres per 100 kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of Flocrete AW63 EX to meet the performance requirements by using the materials and conditions in actual use.

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EFFECTS OF OVER DOSAGE

Overdosage of Flocrete AW63 EX will cause the following:

- » Significant increase in retardation.
- » Affecting the workability significantly.

Ultimate concrete strength will not be adversely affected unless of using a dosage of more than double of recommended dosage.

SETTING TIME

Although the setting time is dependent on the dosage of Flocrete AW63 EX, the following factors should be considered:

- Retardation is increased with lower levels of tri-calcium in the cement.
- Lower temperatures will delay the setting time.
- SRC cement gives higher retardation levels than ordinary cement.
- Using more than one type of admixture in the same concrete mix could affect the setting time.
- Retardation level is increased when cement replacement materials are used in the concrete mix.

STORAGE

Remix well before use. Store under cover, out of direct sunlight and protect from extremes of temperature.

When transferring Flocrete AW63 EX admixture to other containers, contact with water must be avoided to prevent gelling.

SHELF LIFE

Flocrete AW63 EX has a shelf life of 12 months from date of manufacture if stored unopen condition.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Flocrete AW63 EX is not classified as a hazardous material. Flocrete AW63 EX should not come into contact with skin and eyes.

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

Flocrete AW63 EX is nonflammable.

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A wide range of construction chemical products are manufactured by DCP which include:

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

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.