

Flocrete AW70 DF

Anti-washout liquid admixture



DESCRIPTION

Flocrete AW70 DF is a liquid anti-washout admixture specially designed for the underwater placement of concrete.

Concrete containing Flocrete AW70 DF admixture exhibits superior resistance to washout of cement and fines, while impeding the blending of external water into the plastic concrete.

APPLICATIONS

- » All types of underwater concreting where conventional concrete or placing techniques would result in a high percentage of material loss due to washout
- » Foundations and piles where high water table occurs.
- » To produce cohesive concrete mixes.
- » Grouting applications where mixtures are typically more fluid and have a higher potential for washout.

ADVANTAGES

- » Reduce or eliminate dewatering costs associated with underwater construction.
- » Segregation and dilution are reduced, in-place compressive and bond strengths are significantly increased.
- » Designed to have neutral effect on air content in concrete mixes, especially in mixes containing fly ash and/or micro silica.
- » 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.

STANDARDS

Flocrete AW70 DF meets the requirements of the requirements of the U.S. Army Corps of Engineers CRD-C 661-06, Specification for Anti-Washout Admixtures for Concrete.

COMPATIBILITY

Flocrete AW70 DF can be used with all types of Portland cement and cement replacement materials, especially in cases of "Triple Blend" concrete mixes where multiple types of cement replacement materials are used, Flocrete AW70 DF proved to not have a negative impact on air content.

TECHNICAL PROPERTIES:

Colour:	Clear to yellowish viscous liquid
Specific gravity:	1.01 ± 0.03
Chloride content:	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

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 AW70 DF should be added after adding all of materials of concrete mix and should allow for 30 seconds extra mixing time.

REDUCTION OF WASHOUT

To check the percentage of washout reduction, normally a comparison test should be done between control concrete mix without using Flocrete AW70 DF admixture versus concrete mix using Flocrete AW70 DF, 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 AW70 DF 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 AW70 DF is available in 25, 210 litre and bulks supply.

DCP Saudi Co.

Sulay, Industrial Area, Istanbul St., Riyadh
Industrial City 3, Jeddah
Saudi Arabia
info.saudi@dcp-int.com
www.dcp-int.com



Flocrete AW70 DF

DOSAGE

The recommended dosage of Flocrete AW70 DF 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 AW70 DF to meet the performance requirements by using the materials and conditions in actual use.

EFFECTS OF OVER DOSAGE

Overdosage of Flocrete AW70 DF 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 AW70 DF, the following factors should be considered:

- i. Retardation is increased with lower levels of tri-calcium in the cement.
- ii. Lower temperatures will delay the setting time.
- iii. SRC cement gives higher retardation levels than ordinary cement.
- iv. Using more than one type of admixture in the same concrete mix could affect the setting time.
- v. 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 AW70 DF admixture to other containers, contact with water must be avoided to prevent gelling.

SHELF LIFE

Flocrete AW70 DF has a shelf life of 12 months from date of manufacture if stored unopened condition.

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

CAUTIONS

HEALTH AND SAFETY

Flocrete AW70 DF is not classified as a hazardous material. Flocrete AW70 DF 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 AW70 DF is nonflammable.

MORE FROM DON CONSTRUCTION PRODUCTS

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.

DCP Saudi Co.

Sulay, Industrial Area, Istanbul St., Riyadh
Industrial City 3, Jeddah
Saudi Arabia
info.saudi@dcp-int.com
www.dcp-int.com

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.