

Conplast UWL

Anti washout admixture for Underwater concreting.

Uses

Conplast UWL is an admixture system specially designed to allow concrete to be placed underwater. Conplast UWL increases the cohesion of concrete mixes and minimises washout enabling concrete to be easily placed underwater, and produces well compacted, high quality concrete.

Advantages

- Reduces washout of cement paste during placing.
- Eliminate segregation in mixes.
- Can remove need for specialist placing equipment.
- Allows higher strength and reinforced concrete to be satisfactorily placed underwater.

Description

Conplast UWL is a chloride free ready to use liquid admixture. Conplast UWL produces a gel in the water which surrounds the cement particles and protects them from washout

Properties

Chloride content : Nil to BS 5075

S.G : 1.010

Compatibility with cements

Conplast UWL can be used with all types of Portland cements and cement replacement materials such as microsilica, GGBS and fly ash. For advice on special cements, consult Fosroc's Technical Department

Compatibility with other admixtures

Conplast UWL is recommended to use in conjunction with Fosroc's Auramix series of PCE admixtures. If it is found necessary to use a plasticiser or other type of admixture, Fosroc's Technical Department should be contacted for advice.

Stiffening and Setting times

Stiffening time of concrete using Conplast UWL is achieved soon after placing; set time of concrete is not effected by the usage of Conplast UWL.

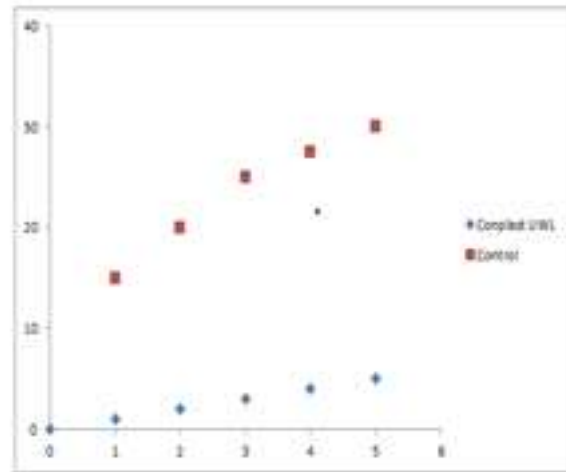
Cement washout

Typically, ordinary concrete can exhibit a washout of upto 30% of the fines content. Using Conplast UWL in the same mix, this can be reduced to less than 6%.

See Figure 1.

Washout resistance is assessed by filling a perforated basket with the concrete mix, allowing it to drop through water five times and measuring the loss in weight of the concrete after each drop.

Figure 1. Typical results of Washout tests.



Number of drops of basket

References

Plunge test 'Laboratory Method of Testing Concrete for Placement Underwater' B.A. Davies, International Conference on Concrete in the Marine Environment, London, 1986.

Instruction for use

Dosage

The normal dosage of Conplast UWL is between 0.3 to 1.5kg per 100kg cement of cementitious materials. Dosages outside recommended levels are possible depending upon job requirements and concreting materials. Site trials should be carried out to establish optimum dosages for the mix to be used.

Overdosing

An overdose of double the recommended measure of Conplast UWL will result in an increase in the anti-washout properties, and possible loss of flowability/workability.

Mix design

Site/plant trials must be carried out to determine the optimum mix design and workability requirements.

Mixing

When concrete is made using a forced action mixer, Conplast UWL should be added towards the end of the mixing cycle. It should be added slowly and with care. Mixing should continue for a further 1 - 2 minutes.

Conplast UWL

When concrete is truck mixed Conplast UWL should be added to the concrete after mixing either at the plant if near the site, or at site. Conplast UWL should be added slowly into the truck, and mixed for 5 - 10 minutes at high speed. It is essential that truck mixers used are in good condition. Agitator trucks are not suitable. When the concrete is truck mixed it may be necessary to adjust the workability of the concrete after Conplast UWL has been added. This may be done with a small amount of additional water or the addition of a suitable plasticiser. See "Compatibility with other admixtures". The concrete should be constantly agitated until the moment of placing.

Placing

The concrete may be pumped, skipped or tremied into place, alternatively it may be flowed down an incline. Free fall of highly workable concrete tends to results in turbulent flow which segregates the mix and increases water cement ratio. At high workability it is, therefore, not recommended that the concrete is allowed to free fall, even from the end of a tremie

Precautions

Health and safety instructions

Conplast UWL has no specific health hazards; it is not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes.



Fosroc Chemicals (India) Pvt. Ltd.

Head Office

Embassy Point, No. 150,
2nd Floor, Infantry Road,
Bangalore 560 001,
Karnataka

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.

telephone

+91 80-42521900

fax

+91 80-22281510

e-mail

enquiry.india@fosroc.com

Regional Offices

Chennai

Hills Centre, Old No 5,
New No 9, 3rd Cross Street,
Jeth Nagar, Raja Annamalaipuram,
Chennai 600 028.
Ph: 9500064795

Mumbai

MBC Park, 12th floor, Office No.12B,
'D' Block, Near G Corp/Hyper City
Kasarwadawali, Ghodbunder Road,
Thane (West) 400 615
Ph: +91 22 6229 6800

Noida

Unit No. 601, Highway Tower-II
A-13/2, 6th Floor, Sector- 62
Gautam Buddha Nagar,
Noida 201 309, Uttar Pradesh
Ph: +91 120 6121900
Fax: 0120-4270622

Kolkata

304, Jodhpur Park
Kolkata 700 068
Ph: +91 33-65343188
Fax: 033-2499-0278

www.fosroc.com