



Technical Data Sheet

Ecocrete UW100 Anti-washout concrete admixture



Description

Ecocrete UW100 is an underwater concrete admixture that increases concrete cohesion and minimizes washout, allowing for concrete to be placed under water.

Application

Ecocrete UW100 is suitable for use in the following applications

- Underwater concreting.
- Fluid grouting that may have subject to washout.

Advantages

Ecocrete UW100 has the following advantages.

- Minimizes washout of cement and fine particles.
- Reduces of concrete bleeding and segregation.
- Allows longer transport and placing time.
- Helps produce high quality well compacted concrete under water.

Compatibility

Ecocrete UW100 can be used with all types of Portland cement and cement replacement materials.

Ecocrete UW100 is compatible only with **Envirocon** polycarboxylic and lignosulfonate base concrete admixtures used in the same concrete mix.

In case of other types of admixtures have to be used, contact Envirocon technical department for more advice.

Technical properties

Appearance	Lumps free powder
Bulk Density	550 – 600kg/ m ³
Total Chloride Content	Nil
Air Entrainment	Typically less than 2% additional air is entrained above control mix at normal dosages

Method of Use

Ecocrete UW100 should be added gradually after adding all of materials of concrete mix and should allow for 2 minutes extra mixing time.

Reduction of washout

Ecocrete UW100 will minimize the washout of cement and fines particles in the mix significantly, also other factors will help to minimize the washout by making a mix design to get more cohesive mix like increasing the sand percentage over the coarse aggregates percentage.

To check the percentage of washout reduction, normally a comparison test should be done between control concrete mix without using **Ecocrete UW100** admixture versus concrete mix using **Ecocrete UW100**, fill a perforated basket with concrete mix and drop it through the water for 3 to 5 times and measure the weight loss on each time.

Normally up to 80% of washout reduction can be achieved by using the **Ecocrete UW100** comparing with control mix.

Effects of over dosage

Over dosing of **Ecocrete UW100** will cause the following:

- Significant increase in retardation.
- Increase in workability.

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

Concrete Placement

Concrete containing **Ecocrete UW100** can be pumped easily or tremied into place. Placement of concrete should be continuous to avoid the free fall of the concrete through water during placement.

Disclaimer:

We hope that the information herein will be helpful. The data is based upon knowledge considered to be accurate and true and is offered for the user consideration, investigation and verification in the application intended. We do not warrant the results or performance attained due to the nature of the influence of other constituent components in the application.



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Setting Time

Although the setting time is dependent on the dosage of **Ecocrete UW100**, 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.

Dosage

The guidance dosage of **Ecocrete UW100** is 0.50 to 1.0 kg per 100kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of **Ecocrete UW100** to meet the performance requirements by using the materials and conditions in actual use.

Storage

Ecocrete UW100 shelf life is 12 months from date of manufacture if stored at dry conditions in its original unopened packing.

Cleaning

Spillages of **Ecocrete UW100** will get when in contact with moisture and should therefore be removed in the dry state.

Packaging

Ecocrete UW100 available in 10 kg bags

Cautions

Health and safety

Ecocrete UW100 has no specific health hazard. It is non-toxic but should not be ingested. Any eye contamination should be flushed with clean water and medical advice should be sought.

Consult material safety data sheet for more information.

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Fire

Ecocrete UW100 powder may burn slowly. Use water to extinguish.

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