

NOVATECH UWC 100

Anti-washout Admixture for use with Underwater Concrete and Mortar

Description

Novatech UWC 100 is an anti-washout admixture specially developed for underwater concreting and is produced as a viscosity modifying admixture to enhance the rheological properties of cement paste. **Novatech UW 100C** is substantially influential in enhancing the cohesiveness of concrete that is poured underwater and in danger of washout or segregation due to surrounding water. **Novatech UWC 100** can also be utilised in large repair and placement applications. **Novatech UWC 100** is also called viscosity improving admixture, and it is occasionally employed to create self-compacting concrete.

Uses

Novatech UWC 100 can be used for all underwater concrete, irrespective of application. It is also suitable for all the usual methods of underwater placement such as pumping, tremie, bucket and crane, concrete chute, sack method. **Novatech UWC 100** is recommended for use in:

- ✓ Underwater concrete
- ✓ Self-compacting concrete
- ✓ Shotcrete
- ✓ Cement Grouts
- ✓ Repairs and renovations

Advantages

- ✓ Better cohesion of concrete placed underwater
- ✓ Reduces risk of segregation and bleeding by surrounding water
- ✓ Decreases rate of dispersion of concrete during concreting underwater
- ✓ Improves rheological and viscosity properties of concrete
- ✓ Maintains stability
- ✓ Enhances flow properties
- ✓ Enhances workability and durability

Technical Properties

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|------------------|-----------------------------|
| Appearance | Light Amber liquid |
| Specific Gravity | 1.01 |
| Chloride content | Nil (As per BS 5075-Part 1) |

Compatibility with Cement

Novatech UWC 100 is suitable for use with all types of Portland cement and cement replacement materials such as PFA, GGBFS and micro silica.

Stiffening and Setting times

Stiffening time of concrete using **Novatech UWC 100** is achieved soon after placing; setting time of concrete is not affected by the usage of **Novatech UWC 100**.

Cement washout

Typically, ordinary concrete can exhibit a washout of up to 30% of the fines content. Using **Novatech UWC 100** in the same mix, this can be reduced to less than 6%.

Instructions for use

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, **Novatech UWC 100** should be added towards the end of the mixing cycle. It should be added slowly and with care. Mixing should continue for further 1 to 2 minutes.

When concrete is truck mixed **Novatech UWC 100** should be added to the concrete after mixing either at the plant if near the site, or at site. **Novatech UWC 100** should be added slowly into the truck and mixed for 5 to 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 **Novatech UWC 100** has been added. This may be done with a small amount of additional water or the addition of a suitable plasticiser. 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 result in turbulent flow, which segregates the mix and increases the water/cement ratio.

At high workability, it is, therefore, not recommended that the concrete be allowed to free fall, even from the end of a tremie.

Dosage

The normal dosage of **Novatech UWC 100** is between 0.3 kg to 1.5 kg per 100 kg of cementitious materials. Dosages outside of recommended levels are possible depending on job requirements and concrete 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 **Novatech UWC 100** will result in an increase in the anti-washout properties, and possible loss of flowability/workability.

Packaging

200 kg and 20 kg HDPE containers.

Storage & Shelf life

If stored in normal warehouse conditions protected from frost, it has a shelf life of approximately 12 months.

Cleaning

Spillages of **Novatech UWC 100** to be soaked up with inert absorbent or remove by best available means, dispose-off as waste.

Fire

Novatech UWC 100 is nonflammable.

Precautions

Health and Safety Instructions

Novatech UWC 100 has no specific health hazards; it does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin or eyes.

Before use, refer to the Material Safety Data Sheet (MSDS). The MSDS is available on www.ccichemicals.in or contact us at info@ccichemicals.in.

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