

NOVACAST 1000

Innovative Admixture for Ultra High Early Strength

Description

Novacast 1000 is a unique combination of a new generation superplasticiser based on polycarboxylic ether polymer with long lateral chain. Electrostatic dispersion mechanism considerably reduces the water demand in flowable concrete. It is supplied as a light brown liquid, instantly dispersible in water.

Novacast 1000 disperses the cement particles effectively in the concrete mix and hence exposes a larger surface area to the hydration process. This effect is used either to increase the strength or to produce high workability concrete or reduce cement content of concrete or to retard the setting time of concrete.

Uses

Novacast 1000 developed to use in:

- ✓ Suitable for precast industry
- ✓ Moderate workability retention concrete
- ✓ Suitable for Self-compacting concrete
- ✓ High performance concrete
- ✓ High early strength concrete

Advantages

- ✓ Low viscosity admixture suitable for precast industry
- ✓ Suitable for concrete having cement replacements and low water/cement ratio
- ✓ Provides high early strength without increase in cement content or reduction in workability. Ideal for precast concrete production
- ✓ Reduces rate of workability loss normally associated with superplasticiser
- ✓ Reduces shrinkage cracking because of lower water/cement ratio
- ✓ Makes the concrete impermeable
- ✓ Better resistance to carbonation
- ✓ Reduces shrinkage and creep
- ✓ Increases durability

Standard Compliance

Novacast 1000 complies to IS 9103:1999 as a water-reducing admixture and as a superplasticiser and ASTM C 494 Type G and Type F depending on dosage.

Technical Support

CCI chemicals provide technical advisory service for on-site assistance and guidance on mix design, optimum dosage evaluation of trials.

Typical Properties

Appearance	Light brown liquid
pH	Minimum 6.0 *
Chloride Ion content	Product contains a chemical which interferes in the procedure as per IS 9103
Workability retention	2 hours and more depending on dosage

* The uniformity parameters like specific gravity, pH, chloride content etc., will vary for specific customer requirements and mix design. Please refer to our MTC issued for specific product configuration for measuring our product parameters that will be constantly and consistently administered.

Dosage

The optimum dosage of **Novacast 1000** should always be determined by conducting laboratory and batch trials. However, the normal dosage ranges between 0.3% to 2.0% by weight of total cement or binder content.

Dosage beyond Limits

Dosage beyond limits can be used to meet particular mix requirements in consultation with CCI Chemicals technical department.

Effects of Overdosing

Overdosage may cause delay in the setting time and segregation.

Packaging

Novacast 1000 is available in 230 kg HDPE barrels and bulk tankers on request.

Storage & Shelf life

Novacast 1000 has a minimum shelf life of 12 months provided the temperature is kept within the range of 5°C and 50°C.

Precautions

Health & Safety instructions

Novacast 1000 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come in contact with skin or eyes.

Suitable protective gloves and goggles should be worn.

Splash on skin should be cleaned with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical attention immediately; do not induce vomiting.

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.

Fire

Novacast 1000 is water-based and non-flammable.

Cleaning and Disposal

The spillage of **Novacast 1000** should be absorbed onto sand, earth or vermiculite and transferred to suitable container. Remnants should be hosed down with a large quantity of water.

The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

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