

# CWC®ROBOPLAST 1005

## High performance Superplasticizing admixture

### Description

**Roboplast 1005** is a multi-range Superplasticizing admixture based on selected sulphonated naphthalene polymers. It is supplied as a brown solution which instantly disperses in water.

**Roboplast 1005** disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively. The moderate to high levels of water reduction possible allow major increases in strength to be obtained.

### Indicative characteristics

Form	: Brown Liquid
Specific Gravity	: 1.23 ± 0.02
Air entrainment	: ≤ 1.5 % over control mix.
pH	: ≥ 6
Chloride Content	: Nil, as per BS - 5075 (Part-I)

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

### Standard Compliance

**Roboplast 1005** complies with IS9103:1999, BS 5075 Part 3 and with ASTM C494 Type 'F' and G admixture depending on dosage used.

### Advantages:

- Admixture suitable for pumping different grades of concrete to greater heights.
- Improved workability - Easier, quicker placing and Compaction
- Provides higher strength without increase in cement content or reduction in workability/Water (15 to 21%) can be achieved.
- Reduce rate of workability loss normally associated with super plasticizer.
- Reduces shrinkage cracking because of lower water cement ratio.
- Makes the concrete water impermeable. v Better resistance to Carbonation.
- Increase Durability.

### Domains of application

- All cement types
- Esp. for Ready Mix Concrete / Job site
- Single admixture for wide range of concrete
- Concrete using moderate **to high SCM**
- To make regular concrete better
- High to very high-performance concrete

### Method of use

Dosage: Optimum dosage can only be established after trials, considering the rheological characteristics and the required mechanical performances. Rate of addition is generally in the range of 0.5-1.5% by wt of cementitious material.

For maximum dispersion throughout the mix, **Roboplast 1005** should be added to the mixing water only. Should the product be added to fresh concrete, into the mixing truck, it is necessary to mix at high speed, and then at low speed (with a minimum 3 minutes at each speed)

\*\* Higher dosage can be used if agreed & allowed by clients/consultants



## Compatibility

**ROBOPLAST 1005** is compatible with other CWC admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be premixed together prior to addition. The resultant properties of concrete containing more than one admixture should be assessed by trial mixes.

**ROBOPLAST 1005** is suitable for use with all types of Portland cements, SRC cements and cement replacement materials such as PFA, GGBFS and micro silica.

The use of a combination of admixtures in the same concrete mix and or cement replacements may alter the setting time. Trials should always be conducted to determine such setting times

## Packaging

- 250 Kgs Barrel & bulk in 10 KL tanker

**Shelf Life:** If stored in unopened containers at normal ambient temperatures, a shelf-life of approximately 12 months.

Freezing point: Approximately -2°C.

## Precautions

Not to be stored at high temperatures for long periods. Should be protected from frost. It is Non-toxic and formulated from chemicals which present no fire or health hazards. Spillages should be washed down immediately with water.

## Additional information

The CWC range of associated products include high strength cementitious, epoxy grout, polyester resin-based mortar, Resin anchoring systems. Also available a range of products for use in construction; viz., admixtures, curing compounds, release agents, flooring systems and repair mortars.

Separate datasheets are available on these products.

## Safety

Before use, refer to the Material Safety Data Sheet. The MSDS is available on [www.cwcchemicals.com](http://www.cwcchemicals.com)

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