Concrete Works
Construction Chemicals
Private Limited

DAkkS
Deutsche
Akkreditierungsstelle
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CWC® ROBOCAST 9200

High early strength, high range Water reducing/Superplasticizing, admixture for precast concrete

Description

ROBOCAST 9200 is an admixture of a new generation based on new generation Poly carboxylic ether polymer with high early strength gains. ROBOCAST 9200 is designed to work on a combination of electrostatic adsorption and steric repulsion effects allowing solid particles to be effectively dispersed. Therefore, a high level of fluidity and plasticizing can be reached with a high-water reduction which provides many advantages. ROBOCAST 9200 is NO ADDED chlorides & low alkali. It is compatible with all types of cements.

Indicative characteristics

Form	: Light Brown Liquid
Specific Gravity	: 1.115 ± 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

ROBOCAST 9200 complies with IS9103:1999, BS 5075 Part 3 and with ASTM C494 Type 'E' and F admixture depending on dosage used.

Advantages:

- Achieve high early strengths
- Produces High plasticity and Free flow concretes having a low water cement ratio
- Optimize curing cycles by reducing curing time or curing temperatures
- Reduce heat curing
- Eliminate the energy required for placing, compacting & curing
- Increase productivity/ reduction in cycle time
- Improve surface appearance
- Produce durable precast concrete elements
- Improved engineering properties, compared to traditional superplasticizer such as early and ultimate compressive and flexural strengths, reduced shrinkage and low permeability

Domains of application

Production of concrete mixes which require high early strength development, powerful water reduction and improved flowability.

- Precast concrete
- Fast-track concrete
- In situ concrete requiring fast stripping time
- Mixes requiring >35% water reductions
- High to very high-performance concrete

DISPENSING

ROBOCAST 9200 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticizing effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of ROBOCAST 9200 to dry aggregate or cement is not recommended. Automatic dispensers are available. Thorough mixing is essential and a minimum mixing cycle, after the addition of the ROBOCAST 9200, of 30-40 seconds for forced action mixers is recommended.

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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 0.35-1.5% by wt of cementitious material.
** Higher dosage can be used if agreed & allowed by clients/consultants

Effects of over dosage

A severe over-dosage of **ROBOCAST 9200** can result in the following:

- Reduced permeability
- Long extension of initial and final set
- Increase in air entrainment
- Bleed/segregation of mix, quick loss of workability

A slight overdosing may not adversely affect the ultimate strength of the concrete and can achieve higher strengths than normal concrete, provided it is properly compacted and cured. Due allowance should be made for the effect of fluid concrete pressure on form work, and stripping times should be monitored

Compatibility

ROBOCAST 9200 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.
ROBOCAST 9200 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

- 230 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.

Safety

Before use, refer to the Material Safety Data Sheet.
The MSDS is available on www.cwcchemicals.com

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.

Regional offices

MUMBAI:
Office No - 616/617, J K Chambers
Sec-17, Vashi, Navi Mumbai-400703
Maharashtra, INDIA.
91 9920791030

CHENNAI:
Plot No.3/86-E, Ground Floor
AIEMA Road, Ambattur Industrial Estate
Chennai – 600058 Tamil Nadu, India
91 8939820144
www.cwcchemicals.com
info@cwcchemicals.com