

CEMCRETE R32

WATER REDUCING PLASTICIZING AND SET RETARDING ADMIXTURE FOR CONCRETE ASTM C-494 TYPE B AND D)



DESCRIPTION

CEMCRETE R32 admixture is a ready-to use aqueous solution of modified lignin sulphonic acid and organic salts. It contains no chlorides. **CEMCRETE R32** is designed to produce the higher compressive, flexural, and tensile strength of concrete by means of water reducing and through control of the cement hydration.

FEATURES & ADVANTAGES

The use of **CEMCRETE R32** produces fresh concrete with greater plasticity and workability, easier to place and more finishable than plain concrete or concrete treated with another admixture. **CEMCRETE R32** is also designed to delay and control the setting time of concrete. These features will give the following advantages:

At the same workability:

- At the usual addition rate the initial setting time of concrete will be extended by 2 to 4 hours at 20°C.
- Water reduction provides strength increases at all ages.
- Economy of mixing due to improvement in strength
- Improved impermeability and reduced shrinkage in the hardened concrete

At the same water / Cement Ratio:

- Better control of hydration provides strength increases 10% to 20% at all ages especially in the hot weather concreting.
- Improved concrete flow over an untreated mix
- Better vibration response and finish.

BASIC USES

CEMCRETE R32 is used wherever a delay in setting maybe required to ensure sufficient time for delivery, placement, vibration, or compaction, particularly for:

- **HOT WEATHER CONCRETING** where delayed set will ensure sufficient placement time and improve concrete quality.
- **TRANSIT MIX CONCRETE** where setting time on long hauls must be extended.

CHEMICAL ACTION

CEMCRETE R32 acts to optimize the rate and degree of hydration of the Portland cement in the concrete. **CEMCRETE R32** also acts as a dispersing agent and lessens the natural interparticle attraction between cement grains in water. The combination of water reduction and controlled hydration optimizes the rate of formation of gel, the paste that "glues" or binds together the individual portions of the concrete aggregate. This controlled rate of gel formation adds to the water retention and internal cohesiveness of the mix, reducing bleeding and segregation while increasing the workability, placeability and finishability of the concrete. **CEMCRETE R32** while not reducing the total heat hydration development during the reaction of the cement and water, does have a marked effect on the rate of heat evolution spreading it out over a longer time and reducing harmful shrinkage often found in hot weather concreting.

DOSAGE

Excellent results are obtained using an addition rate of 0.4 to 1.2 liters/100 kg cement depending on job conditions and delay required. Higher dosage is needed where more water reduction is required.

Dosage above the recommended values can be employed. However, the required dosage for specific job with controlled delay setting and workability should be determined by in-situ-trials.

Note: To determine the required setting, performance, workability retention and strength development, trials are recommended to be conducted.

DISPENSING EQUIPMENT

A complete line of accurate automatic dispensing equipment is available. **CEMCRETE R32** must be introduced to the mix with the water.

COMPATIBILITY WITH OTHER ADMIXTURES

CEMCRETE R32 is compatible in concrete with Cemtec Air Entraining Admixture. EACH ADMIXTURE SHOULD BE ADDED SEPARATELY TO THE MIXER.

PROPERTIES

Appearance	Dark Brown (Liquid)
Specific Gravity at 25°C	1.10 ±0.02
Chloride Content	NIL- BS 5075

PACKAGING

Available in 10,000 liters bulk tanks, 1000 liters containers or 210 liters drums



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**CONSTRUCTION
CHEMICALS**

ENGINEER'S SPECIFICATION

Concrete shall be designed in accordance with ACI Standard Recommended Practice for Selecting Proportions for Concrete (ACI 211.1-74). The water reducing plasticizing admixture shall comply with ASTM designation C-494 Type B and D admixture and shall be CEMCRETE R32 as manufactured by Construction Material Chemical Industries or one proved to be equivalent. It shall be used in Strict accordance with the manufacturer's recommendations.

OVERDOSING EFFECTS

An overdosing of **CEMCRETE R32** will result in significant retardation of the initial set. However, the ultimate strength will not be affected on condition that proper curing method are observed.

STORAGE

CEMCRETE R32 has a shelf life of 12 months from manufacturing date and keep at temperature between 5°C and 45°C.

Health and Safety

- It is safe for use with standard precautions wear suitable protective clothing, safety goggles and gloves
- If swallowed, do not induce vomiting, and seek medical attention.
- In case of accidental eye contact wash copious quantities of water and seek medical attention
- Should skin contact occur, rinse the exposed skin with plenty of water, if irritation persist, seek medical attention.

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Quality Statement

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

The Technical Specification information and recommendations given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.

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