



The Chemical Company

DELVOCRETE[®] STABILISER

Description

DELVOCRETE[®] STABILISER is a ready-to-use, liquid admixture for making more uniform and predictable high-performance concrete while retarding its setting time to facilitate placing and finishing operations. It meets ASTM C-494 requirements for Type B, Retarding and Type D, Water Reducing and Retarding admixtures, specifically:

- Increased strength-compressive and flexural
- Relative durability to damage from freezing and thawing-well above industry standards
- Reduced water content required for a given workability
- Retarded-setting characteristics

Typical applications

DELVOCRETE[®] STABILISER is recommended for use in all types of concrete where moderate to extended retardation of set time and improved performance are desired.

This admixture improves pumped concrete, shotcrete (wet mix) and conventionally placed concrete. It improves the handling and performance characteristics of reinforced, precast, prestressed, lightweight and normal weight concrete in both the plastic and hardened state.

DELVOCRETE[®] STABILISER can be used with Portland cements approved under BS, DIN, AASHTO, ASTM, and CRD specifications. The use of DELVOCRETE[®] STABILISER and a BASF Construction Chemicals air-entraining admixture is recommended whenever concrete will be required to withstand freeze/thaw cycles. When used in conjunction with other admixtures, each admixture must be dispensed separately into the mix.

DELVOCRETE[®] STABILISER will not initiate or promote corrosion of reinforcing steel in concrete. This admixture does not contain intentionally added calcium chloride or chloride based ingredients. The admixture will contribute less than 0.00014% (1.4 ppm) chloride ions by weight of cement when used at a dosage rate of 260ml/100 kg of cement (± 65 ml). DELVOCRETE[®] STABILISER can be used in white or coloured concrete and in architectural concrete.

Advantages

The set-retarding characteristics of DELVOCRETE[®] STABILISER aid in the production of concrete with the following special qualities:

- Improved workability
- Reduced segregation
- Superior finishing characteristics for flatwork
- Moderate to extended retardation
- Provides flexibility in the scheduling of placing and finishing operations
- Offsets the effects of too-early hardening during extended delays between mixing and placing
- Helps eliminate cold joints
- Allows for dead-load deflection to take place (before concrete sets) in extended pours for bridge decks, cantilevers, nonshored structural elements, etc.
- Lowers peak temperature and/or rate of temperature rise in mass concrete
- Reduces thermal cracking

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- Effective as a single admixture or as a component in a BASF admixture system

Packaging

DELVOCRETE[®] STABILISER is supplied in 210 litre drums.

Dosage

DELVOCRETE[®] STABILISER is recommended for use at the rate of 260 ± 65 ml/100kg of cement for most concrete mixes using average concrete ingredients. Because of variations in job conditions and concrete materials, dosage rates other than the recommended amounts may be required. In such cases, contact your local BASF representative.

Rate of hardening

The temperature of a concrete mix and the ambient temperature (forms, sub base, reinforcement, air, etc.) affect the hardening rate of concrete. At higher temperatures, concrete hardens more rapidly which may cause problems with placing and finishing.

The main function of DELVOCRETE[®] STABILISER is to retard the set of concrete. Within the normal dosage range, it will generally extend the working and setting times of concrete containing normal Portland cement, fly ash, slag, and silica fume by approximately 1 hour to 5 hours compared to a plain concrete mix, depending on job materials and temperatures. Trial mixes should be made with job materials under approximate site conditions to determine the dosage required.

Compressive strength

Concrete produced with DELVOCRETE[®] STABILISER admixture will have rapid strength development after initial set occurs. It develops higher early (24-hour) and higher ultimate strengths than plain concrete when used within the recommended dosage range and under normal, comparable curing conditions.

When DELVOCRETE[®] STABILISER is used in heat-cured concrete, the length of the preheating period should be increased until the initial set of the concrete is achieved. The actual heat curing period is then reduced accordingly to maintain existing production cycles without sacrificing early or ultimate strengths.

Temperature precaution

If DELVOCRETE[®] STABILISER freezes, thaw at 2°C or above and completely reconstitute by mild mechanical agitation. Do not use pressurised air for agitation.

Safety precautions

Safety glasses or goggles and rubber gloves must be worn when handling DELVOCRETE[®] STABILISER and DELVO ACTIVATOR. In case DELVOCRETE[®] STABILISER or DELVO ACTIVATOR come in contact with eyes, skin or clothing, immediately flush with water (for skin, wash with soap and water) for 15 minutes. Remove contaminated clothing and shoes, and wash clothing before reuse. DO NOT take internally. Keep product away from children at all times.



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Storage

Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF's Technical Services Department.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All BASF Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and BASF ESHQ recommendations.

Saudi BASF – 12/2007

*Properties listed are only for guidance and are not a guarantee of performance

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