

MASTER BUILDERSHYDRATION
CONTROLLING
ADMIXTURES**DELVO® STABILIZER**Extended set control for plastic concrete
and concrete washwater**Applications**

Recommended for use in:

- Pumped concrete, shotcrete (wet mix) and conventionally-placed concretes
- Plain, reinforced, precast, prestressed, lightweight and normal weight concrete.
- Stabilization of concrete washwater
- Stabilization of returned plastic concrete
- Stabilization of freshly batched concrete for long hauls
- Portland cements approved under AASHTO and CRD specifications

Description

DELVO Stabilizer is a ready-to-use, liquid admixture for making more uniform and predictable high-performance concrete. DELVO Stabilizer admixture retards setting time by controlling the hydration of portland cement and other cementitious materials while facilitating placing and finishing operations. It can be used to stabilize returned plastic concrete and concrete washwater to reduce waste and increase profits.

DELVO Stabilizer admixture meets ASTM C 494 requirements for Type B, Retarding, and Type D, Water-Reducing and Retarding, admixtures.

Features

- 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 time characteristics
- Improved workability
- Reduced segregation

Benefits

- Provides flexibility in the scheduling of placing and finishing operations
- Offsets the effects of slump loss during extended delays between mixing and placing
- Reduces waste associated with concrete washwater and returned concrete

Performance Characteristics**RATE OF HARDENING**

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

One of the functions of DELVO Stabilizer admixture 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 approximately 1 hour to 5 hours compared to a plain concrete mix. This depends on job materials and temperatures. Trial mixes should be made under approximate job conditions to determine the dosage required.

COMPRESSIVE STRENGTH

Concrete produced with DELVO Stabilizer admixture will develop higher early (within 24 hours) and higher ultimate strengths than plain concrete when used within the recommended dosage range and under normal, comparable curing conditions.

When DELVO Stabilizer admixture 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.

Guidelines for Use**DOSAGE**

DELVO Stabilizer admixture is recommended for use at the rate of 4 ± 1 fl oz/100 lb (260 ± 65 mL/100 kg) of cementitious materials 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 Master Builders representative. For concrete washwater and returned concrete stabilization, utilize Delvo charts or the Delvomatic™ software to determine the appropriate dosage rates.



Recommendations

CORROSIVITY

NON-CHLORIDE, NON-CORROSSIVE

DELVO® Stabilizer admixture will neither initiate nor promote corrosion of reinforcing steel in concrete. This admixture does not contain intentionally-added calcium chloride or chloride-based ingredients.

COMPATIBILITY

The use of DELVO Stabilizer admixture and a Master Builders air-entraining admixture is recommended when concrete will be required to withstand freeze-thaw cycles. When used in conjunction with another admixture, each admixture must be dispensed separately into the mix. DELVO Stabilizer admixture can be used in white or colored concrete and in architectural concrete.

TEMPERATURE

If DELVO Stabilizer admixture freezes, thaw at 35 °F (2 °C) or above and completely reconstitute by mild mechanical agitation. Do not use pressurized air for agitation.

SHELF LIFE

Delvo Stabilizer admixture has a minimum shelf life of 12 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your Master Builders representative regarding suitability for use and dosage recommendations if the shelf life of Delvo Stabilizer admixture has been exceeded.

Packaging

DELVO Stabilizer admixture is supplied in 55 gal (208 L) drums, 275 gal (1041 L) totes and by bulk delivery.

Related Documents

Material Safety Data Sheet — DELVO Stabilizer admixture

Additional Information

For more information on DELVO Stabilizer admixture, contact your Master Builders representative. Also refer to the corresponding data sheets for the three primary applications of DELVO Stabilizer admixture. These data sheets are available from your Master Builders representative.



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