

Daratard[®] 17

Initial Set Retarder ASTM C 494, Type B & Type D

Description

Daratard[®] 17 admixture is a ready-to-use aqueous solution of hydroxylated organic compounds. Ingredients are factory premixed in exact proportions to minimize handling, eliminate mistakes and guesswork. 1.17 kg weighs approximately 1 L (1 gal/10.2 lb).

Uses

Daratard 17 retards the initial and final set of concrete. At the usual addition rate of 195 mL/100 kg (3 fl oz/100 lb) cement it will extend the initial setting time of portland cement concrete by 2 to 3 hours at 21°C (70°F).

Daratard 17 is used wherever a delay in setting time will insure sufficient delivery, placement, vibration or compaction time, such as in:

- Hot Weather Concreting
- Transit Mix Concrete
- Prestressed Concrete

Daratard 17 is also used in special applications, as in bridge decks where it extends plastic characteristics of the concrete until progressive deflection resulting from increasing loads is completed.



Water-Reducing Properties

Along with set retardation, Daratard 17 provides water-reduction (typically 8 to 10%) in a concrete mix. This water-reducing action of Daratard 17 produces greater plasticity and workability in the fresh concrete and the strength and permeability of the hardened concrete are measurably improved. Daratard 17 is designed for use on jobs where high temperatures or extended setting times are the prime factors. It is recommended only

when the primary purpose is to delay and control the setting time of concrete. When time and temperature are not major considerations, Grace Construction Product's water-reducing admixtures such as WRDA[®] with HYPOL[™] should be used.

Compatibility with Other Admixtures

Daratard 17 is compatible in concrete with all commercial air-entraining admixtures, such as Daravair[®]. Due to the slight air-

entraining properties of Daratard 17, itself, the addition rate of Daravair may be reduced by about 25%. By combining the separate effects of air entrainment and dispersion, the water requirement of concrete may be reduced up to 15%. Each admixture should be added separately.

Addition Rates

Addition rates for Daratard 17 will range from 130 to 520 mL/100 kg (2 to 8 fl oz/100 lb) of cement. The amount to be used will depend upon the degree of retardation required under job conditions. Longer setting times or higher temperatures will require higher addition rates. Conversely, the addition rate will be lower for shorter extensions of time.

Dispensing Equipment

A complete line of accurate, automatic dispensing equipment is available. Daratard 17 may be introduced to the mix with the sand or with the water.

Packaging

Daratard 17 is available in bulk, delivered by metered tank trucks, and 210 L (55 gal) drums. It contains no flammable ingredients. **Daratard 17 will freeze at about -2°C (28°F), but will return to full strength after thawing and thorough agitation.**

Architects' Specification for Concrete Retarding Admixture

Concrete shall be designed in accordance with ACI Standard Recommended Practice for Selecting Proportions for Concrete (ACI 211.1).

The set-retarding/water-reducing admixture shall comply with ASTM Designation C 494, Type D admixture, and shall be Daratard 17, as manufactured by Grace Construction Products, or equal. Certification of compliance shall be made available on request. It shall be used in strict accordance with the manufacturer's recommendations.

The addition rate shall be adjusted to produce the specified retardation of the concrete mix at all temperatures.