

Site Fresh®



Ready-Mix Concrete – Your “Site Engineered” Solution for Set Time Stabilization

Site Fresh® Stabilizer temporarily stops cement hydration by forming a protective barrier around cement particles.

Overview

Any delay in concrete batching, transportation or placement beyond a certain cement hydration point can result in substandard concrete and problems on the job site.

In accordance to ASTM C94 “Standard Specification for Ready-Mixed Concrete,” discharge of concrete shall be completed within 90 minutes (or before the drum of the mixer has resolved 300 revolutions) after the introduction of water to the cement and aggregates. If unanticipated delivery or placement delays should occur, two major problems are created for the concrete finisher:

- ▶ Loss in slump, workability and finishability.
- ▶ Increased concrete temperature.

These effects can be especially significant during summer months, when hydration accelerates due to increased air and material temperatures. When hot windy conditions exist, it is suggested to use an evaporation reducer on the concrete to minimize surface crusting and plastic shrinkage cracking during concrete placement.

Curing

All concrete should be cured to maximize strength and quality, and minimize cracking. Refer to ACI 308 “Guide to Curing Concrete.”

Treating Ready-Mixed Concrete

Site Fresh® can be used to stabilize ready-mix concrete while providing the following benefits:

- ▶ Controls/retains the slump of fresh concrete over extended hauling time or job delays.
- ▶ Decreases the rate of concrete temperature gain.
- ▶ Reduces or eliminates the cost associated with ice and liquid nitrogen used to reduce concrete temperature on jobs where a maximum concrete temperature is specified.
- ▶ Concrete treated with Site Fresh results in concrete performance qualities that meet ASTM C494, Type B and D, chemical admixtures.

Dosage Guidelines

The adjacent table is a guideline for Site Fresh® dosages used for stabilization of ready-mixed concrete. These are only guidelines. Variations in materials may cause a change in dosage.

SITE FRESH DOSAGES ARE CWT* OF CEMENTITIOUS MATERIAL			
TEMP (F)	1 HOUR	2 HOURS	3 HOURS
70-79	2-4 oz./cwt	4-6 oz./cwt	6-8 oz./cwt
80-89	3-5 oz./cwt	5-7 oz./cwt	7-9 oz./cwt
90-99	4-6 oz./cwt	6-8 oz./cwt	–

*CWT = 100 pounds of cementitious materials