Accelerating and Retarding Admixtures

BASF CONSTRUCTION CHEMICALS

 Delvo Stabilizer is a ready-to-use liquid admixture that creates more uniform and predictable high-performance concrete. It retards setting time by controlling the hydration of portland cement and other cementitious materials while facilitating placing and finishing operations. Within normal dosage ranges, it will generally extend working and setting times by approximately 1 to 5 hours for concrete containing normal portland cement, fly ash, slag cement, and silica fume. It can be used to stabilize freshly batched concrete for long hauls. By offsetting the effects of slump loss during extended delays between mixing and placing, it provides flexibility in scheduling, placing, and finishing operations. It can also be used to stabilize returned plastic concrete and concrete washwater to reduce waste and increase profits. In addition to its hydration-controlling characteristics, it provides increased compressive and flexural strength, improved workability, and reduced segregation. Delvo Stabilizer admixture meets ASTM C494/C494M requirements for Type B, retarding, and Type D, water-reducing and retarding, admixtures.

—BASF Construction Chemicals
www.masterbuilders.com

SIKA CORP.

 Ambient and concrete temperatures can significantly affect the slump retention, set, and early age strength of concrete. Sika’s range of chemical admixtures include accelerating and retarding admixtures that allow placement of concrete in cold and hot weather conditions without any problems. Sika’s accelerator product line includes nonchloride and chloride-based accelerators; when used in cold weather, these accelerators increase the rate of cement hydration and prevent a delay in set time and increase early strength. Sika Rapid-1 is a unique nonchloride strength (hardening) accelerator. Unlike conventional set accelerators, it doesn’t significantly affect the set of concrete, but dramatically increases the strength of concrete after initial set has occurred, allowing for the addition of accelerators at the plant and smooth concrete placement thereafter. Sika’s retarder product line includes retarding and hydration control admixtures. In hot weather, retarding admixtures delay the hydration of cement and prevent faster slump loss and set time, whereas use of hydration control admixtures can increase the workable life of concrete up to several hours or days, allowing long hauls and avoiding cold joints.

—Sika Corp.
www.sikaconstruction.com
FRITZ-PAK CORP.

Fritz-Pak manufactures a variety of accelerating and retarding admixtures. Delayed Set Retarder is a dry powdered admixture formulated to extend the setting time of concrete while improving concrete quality. It doesn’t contain any calcium chloride or other potentially corrosive materials and is compatible with all standard concrete admixtures. Non-Chloride Accelerator is a powdered set accelerator packaged for use in prepackaged mortar or concrete. It speeds up set times while increasing early compressive strength. It contains calcium, but no chlorides. It’s not hazardous, so no special handling, storage, or transportation expense is required. Fritz-Pak’s powdered admixtures are packaged in patented water-soluble bags that can be added to concrete anywhere. All bags are premeasured to help avoid mistakes in the field and reduce lost loads.

—Fritz-Pak Corp.
www.fritzpak.com

AXIM ITALCEMENTI GROUP

Axim Italcementi Group’s line of admixtures includes a variety of accelerating and retarding products. Stop-Set L is a nonchloride liquid chemical system that temporarily stops cement hydration, keeping the concrete in its plastic state in the drum of a concrete truck or central mixer for periods of a few hours, overnight, or several days. Its unique chemistry doesn’t affect the rate of set when the hydration process is resumed, providing the ideal solution for obtaining a long workability time and high early strength. It’s especially effective at controlling hydration in pervious concrete and other concretes with lower water-cement ratios. Catexol™ 2000 R.H.E. is a nonchloride accelerating admixture that provides unsurpassed acceleration of setting time and strength over a wide range of cold weather temperatures and dosages. With adequate protection, dosed concrete can be placed in subfreezing temperatures with superior rate-of-set and compressive strength results.

—Axim Italcementi Group
www.aximconcrete.com

THE EUCLID CHEMICAL CO.

Accelguard® 90 is a ready-to-use, accelerating, water-reducing liquid admixture that doesn’t contain calcium chloride or added chloride ions. It reduces initial set by 1 to 6 hours, depending on concrete temperature, and increases early strength at low temperatures. It’s especially effective in temperatures as low as 20°F (–7°C) using a cold weather admixture system. It also increases the concrete’s workability and reduces bleeding and segregation. It’s compatible with most other admixtures commonly used in conventional concrete. It’s effective in concrete of any temperature, and it’s particularly effective in freeze-resistant concrete admixture systems.

—The Euclid Chemical Co.
www.euclidchemical.com