Today's Concrete Needs More from a Curing Compound

THE IMPORTANCE OF A GOOD CURING COMPOUND

Professionals stress why the modern concrete industry needs a good curing compound. The article "Some Concretes Need 7 Day Initial Curing" points out that the concrete mixes of today - formulated with fly ash - require a better cure than traditional concrete mix formulations

"Use of additional cementitious materials, such as fly ash has become more prevalent in concrete construction.

Several investigations have reported that the strength, development and durability of concrete containing fly ash is related to the extent and degree of curing."

"It has also been substantiated that drying in ambient conditions greatly reduces the strength potential of fly ash concrete because the secondary (pozzolanic) reaction fails to contribute to the strength of the concrete."

With the implementation of 7-day curing, "the strength and strength development characteristics of the cement fly ash paste was superior to plain cement paste.",



Why? ASTM C-1315 standards allow for a maximum .40 km/m² moisture loss with a minimum coverage rate of 300 square feet per gallon, whereas ASTM C-309 standards call for a maximum .55 km/m² moisture loss with a minimum coverage rate of 200 square feet per gallon.

ASTM C-309's higher moisture loss allowances and inferior coverage rate standards fall short for producing optimal cement fly ash concrete.

TIMING FOR CURING AND FINISHING

There are many reasons why exposed concrete surfaces may fail, one of the most critical being timing of curing compound application. Curing compounds should be immediately applied to new concrete once the bleed water and "wet" sheen on the surface have dissipated.



