What's New from aci

TECHNICAL DOCUMENTS

ACI 325.14R-17 Guide for Design and Proportioning of Concrete Mixtures for Pavements

This guide describes a method for designing mixtures and selecting trial mixture proportions for hydraulic-cement concrete made with and without supplementary cementitious materials, chemical admixtures, and fibers. The guide provides a method that focuses on designing the concrete mixture in the context of pavement structural design, concrete production, construction operations, and the environment in which the pavement will reside.

ACI 440.2R-17 Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures

This guide offers general information on the history and use of FRP strengthening systems; a description of the material properties of FRP; and recommendations on the engineering, construction, and inspection of FRP systems used to strengthen concrete structures. This guide is based on the knowledge gained from experimental research, analytical work, and field applications of FRP systems used to strengthen concrete structures.

Sulfate Attack on Concrete: A Holistic Perspective (SP-317)

The papers presented in this volume were included in a three-part session about sulfate attack on concrete, sponsored by ACI Committee 201, Durability of Concrete, at the ACI Convention in Philadelphia, PA, on October 23-24, 2016. The scope of papers involves a multitude of theoretical and experimental aspects of different forms of sulfate attack.

Reduction of Crack Width with Fiber (SP-319)

This volume contains eleven papers which provide insight on the state of the art of the topic in the academia, in the industry, and in real-life applications. The papers included in this special publication discuss the role of fiber reinforcement in reduction of crack width and lay the foundation for Life Cycle Engineering Analysis with fiber-reinforced concrete.

ACI UNIVERSITY ONLINE COURSES

On-Demand Course: A Practical Approach to Designing, Placing, and Protecting Mass Concrete

Learning objectives:

1. Explain the practical concept for Massive Structural Concrete: "Can't keep it cool? Keep it warm," an alternative approach to designing, placing, and protecting mass concrete structures.
2. Identify measures taken to ensure internal maximum temperature is no more than 35°F (ΔT) greater than the external temperature.
3. Describe how to place a hard trowel finish on the surface of a low-heat, slow-setting mass concrete mixture in a cold environment.
4. Discuss how long it takes for heat to dissipate from a mass structure.

Continuing Education Credit: 0.1 CEU (1 PDH)