What's New from aci

TECHNICAL DOCUMENTS

ACI 441.1R-18: Report on Equivalent Rectangular Concrete Stress Block and Transverse Reinforcement for High-Strength Concrete Columns

This report provides a research summary of equivalent rectangular concrete compressive stress blocks and transverse reinforcement design requirements for high-strength concrete (HSC) columns.

A Symposium Honoring Khaled Soudki: Towards Sustainable Infrastructure with Fiber Reinforced Polymer Composites (SP-322)

The aim of this document is to help practitioners implement (FRP) technology while providing testimony that design and construction with FRP materials systems is rapidly moving from emerging to mainstream technology.

ACI UNIVERSITY ONLINE COURSES

On-Demand Course: Improving Concrete Durability and Aesthetics with High-Reactivity Metakaolin (HRM)

Learning Objectives:
1. Define high-reactivity metakaolin (HRM).
2. Describe the typical manufacturing process of HRM.
3. Recognize applications that can benefit from using HRM.
4. Prepare mixture designs using HRM.

Continuing Education Credit: 0.1 CEU (1.0 PDH)

On-Demand Course: How to Design and Construct Concrete and Masonry to Comply with New Energy Codes

Learning Objectives:
1. Describe important thermal characteristics of concrete and masonry walls using the updated ACI 122R-14, Guide to Thermal Properties of Concrete and Masonry Systems, including: equations to calculate thermal conductivity; methods to calculate thermal resistance; factors affecting thermal inertia; and methods to control condensation.
2. Explain the options in building codes, including the International Energy Conservation Code (IECC), in adopting and complying with thermal energy code compliances for concrete and masonry building wall and floor system designs.
3. Describe the thermal conductivity properties from studies of different cementitious concrete building materials including: normalweight portland cement (NWPC); ultra-high-strength portland cement concrete (UHPC); and ultra-lightweight cementitious composite (ULCC)
4. Identify, compare, and contrast thermal energy efficiencies of alternative building framing system designs—concrete frame, combined concrete and steel frame, and wood frame buildings.

Continuing Education Credit: 0.1 CEU (1.0 PDH)