

TECHNICAL DOCUMENTS

Guide for Shoring/Reshoring of Concrete Multistory Buildings—ACI 347.2R-17

This guide presents information and design criteria for shoring/reshoring operations during the construction of reinforced and post-tensioned multi-story buildings. Methods for developing safe construction practices, including sequencing and timing, as well as design examples, are provided.

Report on Measuring Mechanical Properties of Hardened Fiber-Reinforced Concrete—ACI 544.9R-17

This report provides a synopsis of the existing testing methodologies for the determination of mechanical properties of hardened fiber-reinforced concrete (FRC). This report applies to the mechanical properties of conventionally mixed and placed FRC, including fiber-reinforced self-consolidating concrete (FRSCC), or fiber-reinforced shotcrete (FRS) using steel, glass, polymeric, and natural fibers.

ACI UNIVERSITY ONLINE COURSES

On-Demand Course: Concrete Consolidation in the 21st Century

Learning objectives:

1. Explain the interaction among concrete proportioning, workability, and the amount of required consolidation energy necessary to successfully place concrete in various forms.
2. Identify other placement parameters that interact with the consolidation process to affect concrete workability negatively and positively.
3. Describe how different types and portions of sand and coarse aggregate interact with the consolidation energy needed to successfully place concrete.
4. Describe examples of new concrete technologies that influence the consolidation process, such as higher-vibration vibrators and external vibrators.

Continuing Education Credit: 0.1 CEU (1 PDH)

On-Demand Course: Cold Weather Concrete: Guide Updates and Field Applications

Learning objectives:

1. Summarize the changes to ACI 306R-16, “Guide to Cold Weather Concreting.”
2. Discuss why ACI 306R-16 has inserted recommendations and eliminated requirements.
3. Recognize practical cold weather concreting techniques for placement in various scenarios.

ACI UNIVERSITY ONLINE COURSES (CONT.)

4. Understand the contractor’s role in achieving the goals of ACI 306R-16.
 5. Describe the durability properties with regards to sulfate attack and thaumasite sulfate attack on concrete produced with ground limestone or mineral filler added to either portland cement or blended portland cement with an SCM.
- Continuing Education Credit: 0.1 CEU (1 PDH)**

On-Demand Course: Cold Weather Concrete: Research on Placement and Early-Age Behavior

Learning objectives:

1. Discuss research data to develop a better understanding of heat transfer between cold surfaces and fresh concrete.
2. Use research data to develop economical solutions for warming cold surfaces during cold weather conditions.
3. Understand the nature of water in concrete before, during, and after setting.
4. Describe the physical response in concrete exposed to freezing temperatures before setting, at the time of setting, and after some strength gain has occurred.

Continuing Education Credit: 0.125 CEU (1.25 PDH)

On-Demand Course: Impact of Chemical Deicers

Learning objectives:

1. Summarize recent technical information related to concrete durability and deicers.
2. Discuss how deicers present challenges to existing standardized test methodologies for scaling resistance.
3. Describe deterioration mechanisms associated with deicers.
4. Describe how deicers affect the durability of joints in pavements.

Continuing Education Credit: 0.1 CEU (1 PDH)

On-Demand Course: ACI 318—What’s in Your Spec?

Learning objectives:

1. Discuss how to write a code-compliant project construction specification that is in conformance with the requirements of ACI 318-14.
2. Specify project concrete requirements using the designated exposure classes and conditions from Chapter 19 for freeze/thaw, sulfate, water contact, and corrosion protection.
3. Apply information from Chapter 26, “Construction Documents and Inspection,” of ACI 318-14 to write a complete project specification.
4. Understand how to use ACI 301-16 in developing project specifications.

Continuing Education Credit: 0.1 CEU (1 PDH)

On-Demand Course: Advances in Test Methods to Evaluate Alkali-Aggregate Reactivity in Job Concrete Mixtures, Part 1

Learning objectives:

1. Identify the factors that influence evaluation of ASR potential in lab concrete and job concrete mixtures.
2. Discuss the deficiencies of existing standard test methods in evaluating job concrete mixtures.
3. Summarize developments in new test methods focused on evaluating ASR potential of job concrete.
4. Explain how using blended binary portland cement concrete mixtures can assist in resisting ASR over the long term with use of reactive ASR aggregates.

Continuing Education Credit: 0.1 CEU (1 PDH)

On-Demand Course: Advances in Test Methods to Evaluate Alkali-Aggregate Reactivity in Job Concrete Mixtures, Part 2

Learning objectives:

1. Identify the factors that influence evaluation of ASR potential in lab concrete and job concrete mixtures.
2. Discuss the deficiencies of existing standard test methods in evaluating job concrete mixtures.
3. Summarize developments in new test methods focused on evaluating ASR potential of job concrete.
4. Explain how using blended binary portland cement concrete mixtures can assist in resisting ASR over the long term with use of reactive ASR aggregates.

Continuing Education Credit: 0.1 CEU (1 PDH)

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