

# Troubleshooting Concrete Construction

## In-House Seminar

ONE DAY, 7.5 HOURS (7.5 PDHs/0.75 CEUs)

When you have problems with concrete, this seminar provides the solutions

**Who should attend:** Contractors, design engineers, specifiers, government agencies, and material suppliers

### Program Content:

#### Problems with fresh concrete

Admixture incompatibility; False set; Plastic shrinkage cracking Rapid slump loss; Variation in air content

#### Problems with slabs

Abrasion loss; Carbonation; Cracking, Curling; Discoloration; Drying shrinkage; Flatness; Joint failure; Placement of reinforcement; Popouts; Scaling; Identification of deterioration

#### Problems with vertical concrete

Air surface voids; Bug holes; Form offsets; Form sticking; Honeycombing; Striking layer lines; Identification of deterioration

#### Problems with structural concrete

Cracks, and what they mean; Fire damage evaluation; Load tests; Identification of deterioration

#### Field and laboratory techniques used in concrete problem solving

Visual observation; Impact-rebound; Windsor probe; Petrography; Chemical test



ACI is an approved education provider for AIA and ICC.

### Learning Objectives:

- Recognize common problems with slabs including abrasion loss, carbonation, cracking, curling, flatness, joint failure, and solutions to remedy or prevent these situations.
- Describe the field and laboratory techniques used in concrete problem solving.
- Identify common problems with fresh concrete including admixture incompatibility, false set, and plastic shrinkage cracking, and solutions to remedy or prevent these situations.
- Understand common problems with vertical concrete including air surface voids, bug holes, form offsets, form sticking, honeycombing, and solutions to remedy or prevent these situations.

### Instructors:

Two industry experts will present this seminar.

### Related Documents:

*To expand attendees knowledge, ACI In-House Seminar customers may purchase multiple copies of related documents at 50% off the regular price.*

- Specifications for Concrete Construction (ACI 301-20)
- Guide to Concrete Floor and Slab Construction (ACI 302.1-15)
- Guide to Cast-in-Place Architectural Concrete Practice (ACI 303-12)
- Guide to External Curing of Concrete (ACI 308-16)
- Guide to Identification and Control of Visible Surface Effects of Consolidation on Formed Concrete Surfaces (ACI 309.2R)

*Up to 40 copies of the presentation slides included. Additional copies can be purchased.*



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