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; Streaking 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

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)
• Course Notes authored by the instructors

Up to 40 copies of the presentation slides included. Additional copies can be purchased.
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- Specifications for Structural Concrete (ACI 301)
- Guide for Concrete Floor and Slab Construction (ACI 302.1R)
- Guide to Cast-in-Place Architectural Concrete Practice (ACI 303R)
- Guide to Curing Concrete (ACI 308R)
- Identification and Control of Visible Effects of Consolidation on Formed Concrete Surfaces (ACI 309.2R)

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