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)

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

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 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)

Course Notes authored by the instructors

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