Concrete Slabs-On-Ground

In-House Seminar

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

Learn to design, specify, and build quality concrete floors

Who should attend: Specifiers, architects, contractors, building owners, government agencies, and all others seeking the most up-to-date information on concrete slabs-on-ground.

Program Content:

Introduction
Seminar objectives

Soil Support Systems
Design considerations; Desirable properties; Post-tensioning—expansive soils; Vapor transmission control

Concrete Materials Analysis
Desirable characteristics for slabs-on-ground; Beyond strength and w/cm; Optimizing aggregate gradation; Controlling shrinkage; Pozzolans and admixtures

Curling of Joints and Cracks
Causes; Effects of design, materials, and construction; Minimizing or eliminating curling

Slab System Design
Thickness design methods; ACI 360 slab type selection (Portland Cement Association, Wire Reinforcing Institute, Post-Tensioning Institute, Corps of Engineers); Shrinkage-compensating concrete

Slab-on-Ground Reinforcing
Why reinforce slabs and pavements? Current quantity calculations; Fiber reinforcing

Joint Detailing and Load Transfer
Joint types and application; Round, square, plate, and diamond dowels; Dowel alignment systems

Floor Surface Flatness and Levelness
F-Numbers, straightedge, and other systems; Random traffic, Defined traffic (“Superflat” tolerances); Construction techniques to achieve flat floors

Curing and Surface Treatments
Liquid surface treatments; Dry shake hardeners; Moist versus membrane cures; Special finishes

Problems
Recognition, causes, prevention

Learning Objectives:

• Identify the causes and remedies for joint and crack curling.
• Recognize curing and finishing practices when different surface treatments, including liquid surface treatments, dry shake hardeners, and special finishes are used.
• Understand the design process for concrete slabs-on-ground, including soil support systems, concrete materials analysis, and slab system design.
• Understand the importance of reinforcing slabs and pavements.

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.

• Guide for Concrete Floors and Slab Construction (ACI PRC-302.1-15)
• Guide to Design of Slabs-on-Ground (ACI PRC-360-10)
• Course Notes authored by the instructors

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

ACI is an approved education provider for AIA and ICC.

www.ConcreteSeminars.org