

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)

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

ACI is an approved education provider for AIA and ICC.



American Concrete Institute
Always advancing

www.ConcreteSeminars.org