

Moisture-Sensitive Floor Coverings on Concrete Slabs

Position Statement #10

Many design professionals, construction managers, contractors, flooring and adhesive manufacturers, and concrete producers currently face problems related to moisture-sensitive floor coverings installed on concrete floors. The problems range from claims for construction-schedule delays caused by concrete drying slowly to lawsuits related to floor covering failures and loss of facility use during removal and replacement of the floor covering.

Design and specifications for concrete slabs must address the moisture-emission potential of the concrete slab, protection of the slab from external water, and the compatibility of the concrete's moisture and pH with the specified floor covering and adhesive. Guidance on the design and specification can be found in "Design of Slabs That Receive Moisture-Sensitive Floor Coverings, Part 1: A Design Guide for Architects and Engineers and Part 2: Guide to Specification Issues for Architects and Engineers," *Concrete International*, March and April 2003.

Drying time will be extended when the ambient relative humidity is high, slabs are rewetted, or the building ventilation system isn't yet operating. On projects with tight schedules, the engineer or architect should estimate the drying time needed to permit floor covering installation because compressing the schedule by using desiccant drying, surface treatments, or adhesives with a greater moisture tolerance generally increases project cost.

For projects where moisture-sensitive floor coverings will be installed, prebid meetings are desirable but often aren't practical. However, ASCC concrete contractors strongly recommend a prepour concrete meeting that includes:

- Owner, engineer, and architect;
- Construction manager and/or general contractor and testing lab;
- Concrete contractor and concrete producer; and
- Floor covering installer and representatives of the floor covering and adhesive manufacturers.

We also strongly recommend that an independent testing laboratory perform any specified moisture testing and provide copies of any reports to all the participants who attend the prepour meeting.

Specification requirements have a major effect on floor covering performance. ASCC contractors will build the floor in accordance with specification requirements and suggest means for improving flooring performance whenever possible throughout the bidding and construction phases.

If you have any questions, contact your ASCC concrete contractor or the ASCC Technical Hotline at (800) 331-0668.



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