

New Publications Highlight Concrete Construction

Six articles in three publications featuring nine authors published in three months—on concrete construction! These articles will help concrete contractors, so highlights are provided for each article. If you have any questions about these articles, check with Bruce Suprenant or Ward Malisch.

■ ***“Movements that Affect Tolerance Measurements”***

by Bruce A. Suprenant and Ward R. Malisch, Concrete International, July 2016.

Highlights movements such as curling for slabs-on-ground, deflection for suspended slabs, lateral deflection for walls that are backfilled and columns supporting slabs that are prestressed, and temperature changes that affect the final position of the structure. These movements affect measurements made to determine compliance with tolerances. As such, tolerance measurements should be made prior to these movements. We have already received comments from concrete contractors that this article was long overdue.

■ ***“Effect of Cold Curing Water on Concrete”***

by Ronald L. Kozikowski, Heather J. Brown, Ward R. Malisch and Bruce A. Suprenant, Concrete International, August 2016.

Some specifications limit the temperature difference to 20°F between the curing water and surface of concrete where the water is placed. This means that if the temperature of the concrete slab surface is 100°F, the curing water can't be cooler than 80°F. The purpose of this specification was to eliminate surface cracking. This article provides calculations and data showing that 20°F is not the appropriate limitation on this temperature difference. In three separate experiments, ponded curing water with a temperature difference greater than 50°F was applied to concrete and resulted in no surface cracking.

■ ***“Concrete Industry Tolerances for ADA/ABA Work,” ASCC Position Statement #43***

by American Society of Concrete Contractors, Concrete International, August 2016.

The American Disabilities Act (ADA) says that conventional industry tolerances apply. But what are they? This Position Statement describes the industry tolerances and their use for walkways and ramps. This information should not only help concrete contractors but also designers who are designing slopes for walkways and ramps. ***Position Statement #43 is included in this month's mailing.***

■ ***“Specifying the Concrete Slab to be Polished”***

by Todd Scharich, Chad Gill, Steve Lloyd, Pat Harrison and Bruce Suprenant, The Construction Specifier, August 2016.

Specifiers are currently using their regular Division 3 Cast-in-Place Concrete specifications for concrete that will receive a polished finish. These specifications are not sufficient to provide a concrete slab that will provide a good polished floor. The authors from ASCC, DCC, CPAA and ACI provide recommendations on specifications that will provide a slab suitable to be polished. This article has already been posted on the ACI 310 Decorative Concrete web site for the committee's review.

■ ***“Uniform Polished Concrete Starts with the Canvas”***

by Denny Bartz, Pat Harrison and Bruce Suprenant, Concrete Contractor, September 2016.

How do you meet specifications for a concrete slab that will be polished? This article describes the means and methods used on over 100 slabs that were subsequently polished. These recommendations will assist concrete contractors in providing the polishing contractor with a floor that he can polish and that will impress the owner! This article will be available at the ASCC Annual Conference in Minneapolis.

■ ***“Contractors Make Recommendations Based on Experience”***

by Ward R. Malisch and Bruce A. Suprenant, Concrete Contractor, September 2016.

Making recommendations to the owner or design team? Certainly! And concrete contractors have plenty of experience to provide input and recommendations. However, this input is based on prior experience and should not be considered as providing engineering or design services, nor accepting design liability. Only the engineer of record can determine if the contractor's experience is valid for the project, Code requirements and Owner's criteria.