



# INNOVATION

**In Construction**

Welcome to the World of...

**SELF-CONSOLIDATING CONCRETE**



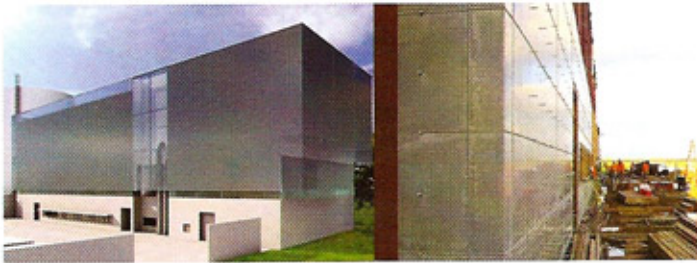
CONSTRUCTION ADVANCEMENT INSTITUTE

Quality Construction Through Innovation

## SELF-CONSOLIDATING CONCRETE: THE NEWEST TWIST ON CONSTRUCTION'S OLDEST MATERIAL!

**C**onstruction's oldest, simplest, and yet most complex material, concrete, now finds itself high on the list of the newest construction technologies as *self-consolidating concrete* (SCC) spreads throughout the industry.

SCC is a highly flowable, non-segregating concrete with a slump flow of 20" to 30" that can be easily placed and completely fill forms under its own weight and *without* mechanical consolidation. Originally developed in Japan in the 1980s, SCC has been used for over 30 years throughout Asia and Europe, but is only now...like so many other "new" technologies... being accepted in the U.S.A.



Produced using high range water reducing admixtures [HRWRA], a polycarboxylate-based HRWRA is the typical type employed. SCC also contains viscosity-modifying admixtures and well-graded aggregates. SCC offers the design and construction team some real benefits including:

- Reduced equipment costs
- Reduction in patching and repair
- Faster placing, finishing and stripping of forms

Faster turnaround time of concrete trucks and ■ Significant cost savings, because of the elimination of vibration and increased rate of placement.



Form work does become critical in SCC. Forms must be designed with slump/flow, rate of placement and setting time established. If you expect a high architectural concrete finish, be attuned to the fact that the type of form release agent material can greatly influence your final result.

A host of NYC architects, structural engineers, owners and concrete producers are working with and learning more about SCC everyday. Many NYC area structural engineering firms today include SCC in their master specifications. A variety of mix designs have currently been prepared and/or used successfully.

Want to know more about self-consolidating concrete? Google it.....Call *William S. Phelan, Sr. V.P.* [Tel. 732-390-9770] of The Euclid Chemical Co. in East Brunswick, NJ, or come to the next CAI Architectural Continuing Education course scheduled for Tuesday, **Sept. 22, 2009**, in Tarrytown, NJ, and hear Bill Phelan sound SCC's virtues in person! [See Continuing Ed story on back page.]



## ARCHITECTS CAN ACQUIRE 6-LUs TOWARDS LICENSING RENEWAL BEFORE DEC. 31, 2009

Need 6-LUs towards the renewal of your architectural license? You can get them all at once at CAI's architectural Continuing Education course scheduled for Tuesday, Sept. 22, 2009, at the Abigail Kirsch Catering Center in Tarrytown, NY. Call (718) 727-4366 immediately to reserve your seats.

Registration is \$100, but no fee is due at this time. Known as "Utilizing Cutting Edge Technologies in Your Designs", the course is an AIA/CES (HSW) presentation.



## TRANSMATERIAL.NET.....YOUR PORTAL TO INNOVATION IN MATERIALS

Want to stay on the very cutting edge of innovative materials research and applications on a weekly basis. Try periodically calling up a web site known as [www.transmaterial.net](http://www.transmaterial.net). Created and operated by Blaine Brownell, the web site now contains more than 1,000 cataloged, new products. TRANSMATERIAL.NET was started in 1999. Its original focus was on innovative materials of all kinds, but now finds itself shifting more and more towards construction materials for greener buildings.



Consider WHEAT STRAW, a new, low cost, building panel made out of.....wheat straw! Enviro Board Corp. of Westlake Village, CA, makes this product. Look at REBEN, a natural paint made by Suzuran Corporation of Japan. This paint is made from scallop shell powder, prevents mold, bacteria—and the spread of flames! Suggestion: sign up for transmaterial's "Product of the Week" E-mail message.



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