



Fast Placement

Pristine Finish

Labor Savings

Self-Consolidating Concrete

Easier Pumping

Flows into Complex Shapes

Encapsulates Congested Reinforcement

Consolidation...just one of the many things it does by itself.

Concrete Delivers™

Engineered concrete solutions for sustainability, durability and value.

Self consolidating concrete (SCC), also known as self-compacting concrete, is a highly flowable, non-segregating concrete that can spread into place, fill formwork and encapsulate even very congested reinforcement, without any mechanical vibration. As a high-performance concrete, SCC delivers these attractive benefits while maintaining all of concrete's customary mechanical properties and durability characteristics.

SCC's unique properties give it significant economic, constructability, aesthetic and engineering advantages. SCC is an increasingly attractive choice for optimizing site

manpower by reduction of labor and possibly skill level, lowering noise levels and allowing for a safer working environment. SCC allows easier pumping - even from bottom up, flows into complex shapes, transitions and inaccessible spots and minimizes voids around embedded items to produce a high degree of homogeneity and uniformity. That's why SCC allows for optimized concrete sections and shapes, denser reinforcement and greater freedom of design while producing superior surface finishes and textures.



SCC's economic benefits are built-in.

Labor and time-to-completion are significant components of any job's economic picture. Since SCC flows easily, self-levels with minimal consolidation, placement is quick and easy, saving placement time, vibration equipment and time, labor and equipment wear and tear. SCC's potential high early form stripping strength and smooth finish mean faster turnaround and minimal cosmetic repairs and a positive impact on maintaining projects on schedule. By eliminating the need for consolidation, SCC results in fewer safety and noise concerns and costs.



SCC's economic advantages are greatest when high strength is an existing prerequisite.

Consolidation is just one of the great things self-consolidating concrete does by itself.

SCC delivers significant engineering benefits.

As an engineered concrete, SCC offers characteristics that engineers value. Improved constructability to produce homogeneous and uniform concrete allows for higher reliability in design assumptions. Engineering properties and their inter-relationships remain unchanged from those of conventional concrete and any differences are adequately addressed by conservatism in the design codes. The principles of concrete durability with respect to reduced permeability, resistance to freezing and thawing and sulfate attack, alkali-aggregate reactions, thermal stresses and corrosion protection of reinforcement also apply similarly to SCC. SCC's superior rheology allows for the design and construction of complex shapes with congested reinforcement, and its non-segregating qualities are important for deep-section or long-span applications. The fluidity of SCC can be engineered in terms of its viscosity -

both rate and degree of flow - to allow for a wider variety of placement and construction means and methods.



SCC (above) results in nearly zero surface defects, especially when compared to standard concrete (below).



“It's hard to believe that such a difficult concrete pour was completed with such ease”

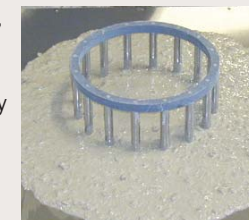
Concrete Superintendent

SCC gives architects more design flexibility.

SCC's unique characteristics give architects much more flexibility for vertical and horizontal applications. SCC's flowability allows for more complex and aesthetic concrete design features. Unlimited opportunities exist with innovative options for color and texture of exposed surfaces. Perhaps most importantly, SCC produces exposed surfaces that are virtually defect free, allowing concrete's beauty to shine

SCC: A high-performance concrete innovation.

SCC's flowability is generally achieved by using polycarboxylate-based high-range water-reducing (HRWR) admixtures and optimized concrete ingredients while maintaining a low mixing water content in the concrete. SCC's stability, or resistance to segregation of the plastic concrete mixture, is achieved by using mineral fillers or fines and/or by using viscosity modifying admixtures.

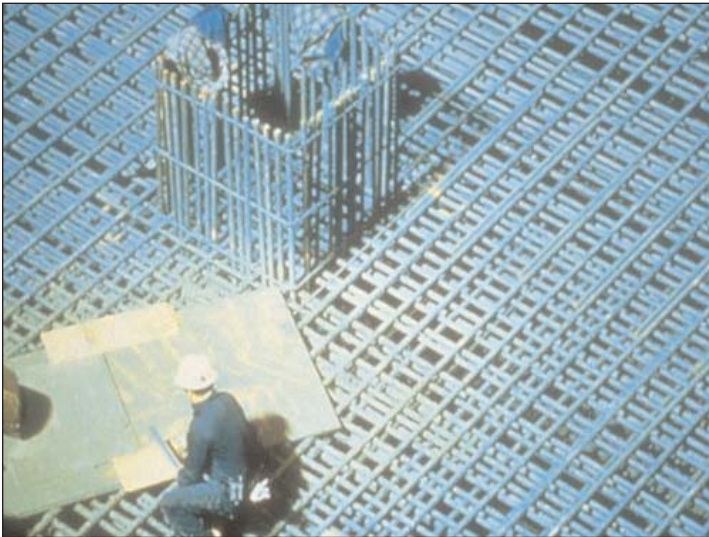


Find out for yourself why SCC works wonders.

Next time you have a job that calls for the considerable economic, aesthetic, engineering or design benefits of self-consolidating concrete make sure it's at the top of your list. To learn more, visit www.SelfConsolidatingConcrete.org.



SCC solves difficult problems: Because of a lack of overhead clearance, SCC was pumped from the bottom into these 101' tall, 28" wide, steel-reinforced columns.



SCC offers advantages when heavy reinforcement is involved: SCC's rheological characteristics allow it to flow easily through congested reinforcement.

Self Consolidating Concrete Delivers Efficiency, Beauty, Savings and More.

Economic Benefits

- Fast placement without vibration or other forms of mechanical consolidation
- Reduced equipment wear
- Labor savings
- Easier placement over any distance or constraints
- Accelerate project schedules
- Reduced noise, safety and environmental concerns

Engineering and Architectural Benefits

- Improves constructability
- Virtually flawless finish
- Homogeneous and uniform concrete
- Flows easily into complex shapes and through congested reinforcement
- Allows for innovative architectural features
- Superior strength and durability

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