

# Self-Consolidating Lightweight Concrete

Self-consolidating concrete (SCC) is a highly flowable, yet stable concrete that can spread readily into place, fill formwork, and encapsulate reinforcement without any mechanical consolidation and without segregation of the concrete constituents. SCC has many advantages over conventional concrete:

- 1) Eliminate the need for vibration
- 2) Decrease construction time and labor cost
- 3) Reduce noise pollution
- 4) Improve the interfacial transitional zone between cement paste and aggregate and/or reinforcement
- 5) Decrease permeability thus improving durability

Self-consolidating lightweight concrete combines these advantages with the reduced deadload and superior fire resistance of structural lightweight concrete. As a pumpable, cast-in-place concrete which yields the quality of a smooth, blemish-free surface, it can also be applied to precast elements.