

Internal Curing—Cures Concrete from the Inside

- Ø Provides Durable & Sustainable Concrete
- Ø Reduces chemical, autogenous & plastic shrinkage in concrete
- Ø Economically extends service life by reducing cracking, reducing chloride ingress and reducing potential for reactive expansions.

Recent research and testing at NIST (National Institute of Standards and Technology) and at many Universities around the U.S. has proven lightweight aggregates provides increased service life in all concrete applications through the concept known as “*Internal Curing* - (ASTM C1761).” The American Concrete Institute in 2010 defined internal curing as “supplying water throughout a freshly placed cementitious mixture using reservoirs, via pre-wetted lightweight aggregates, that readily release water as needed for hydration or to replace moisture lost through evaporation or self-desiccation.” Internal Curing helps to reduce plastic, drying, chemical and autogenous cracking in normal weight concrete. With the reduction in cracking, Internal Curing makes concrete much more durable and sustainable, which aids the concrete in extending beyond its designed service life by many years.

In addition, our presentation we will also cover some of the latest lessons learned (NAVFAC – Naval facilities Engineering Command) in association with High Temperature (Concrete) Vertical Landing Pads associated with a new generation of F-35B Short Take Off Vertical Landing (STOVL) military aircraft.