2010 ACI 322 6.6—Cold weather

6.6.1 During anticipated ambient temperature conditions of 35°F or less, concrete temperature shall be maintained above a frozen state until a concrete compressive strength of 500 psi has been reached.

R6.6.1 *Concrete that is frozen before achieving a compressive strength of 500 psi will not achieve the compressive strength that it would have otherwise. A maturity curve for a particular mixture, available from the concrete supplier, can be used to determine when the compressive strength of the concrete mixture can be expected to reach 500 psi. Further information demonstrating the effectiveness of maturity testing as an accurate prediction method for early-age in-place strength and mixture performance can be obtained from the Concrete Foundations Association (CFA) in the Cold-Weather Research Report. Refer to ACI 306R for further information regarding cold-weather concrete practices.*

6.6.2 Concrete materials, reinforcement, forms, and any earth with which concrete is to come in contact shall be free from ice, snow, and frost.

6.6.3 Frozen materials or materials containing ice shall not be used.