



Best Practices for Pouring Concrete in Cold Weather

American Concrete Institute (ACI) sections 306R, 316 and 317 provide procedures for the placement, curing and protection of concrete that must be followed. Several of the minimum requirements for "Cold Weather Concreting" that need to be verified with your inspector include:

- Procedures for protecting the subgrade from frost and the accumulation of ice or snow on reinforcement or forms prior to placement.
- Methods for temperature protection during placement.
- Types of covering, insulation, housing, or heating to be provided.
- Curing methods to be used during and following the protection period.
- Use of strength accelerating admixtures.
- Methods for verification of in-place strength.
- Procedures for measuring and recording concrete temperatures.

Resources:

 View information and requirements for pouring and curing concrete at: <https://www.concrete.org/>

What Temperature Is Too Cold to Pour Concrete?

The colder it gets outside, the slower the concrete sets. The best temperatures for pouring concrete are temperatures higher than 40 degrees. Concrete will set at temperatures below 40 degrees, but special procedures must be followed to prevent the concrete from freezing.

Concrete should not be allowed to freeze within the first 24 hours of pouring, and should be kept above 41 degrees Fahrenheit for the first 48 hours. If the concrete is meant to carry heavy loads, like a foundation, then the concrete should spend at least 20 days at minimum temperatures of 50 degrees, to ensure the strength and durability of the finished product.

When Should You Follow Cold-Weather Concrete Pouring Steps?

The American Concrete Institute (ACI) says that cold-weather concreting occurs when the average temperature of the air is below 40 degrees for three days and falls below 50 degrees Fahrenheit for more than half of any 24-hour period.

