

# Concrete and Cold Weather: A Bad Mix

Pouring concrete is weather dependent. Concrete placed during too cold of temperatures, on frozen ground, or on top of snow can jeopardize a project.

## How Cold Is Too Cold?

The American Concrete Institute (ACI) defines cold weather as

- The average daily air temperature is less than 5°C (40°F) and,
- The air temperature is not greater than 10°C (50°F) for more than one-half of any 24 hour period.

“Cold weather exists when the air temperature has fallen to, or is expected to fall below 40° F during the protection period. The protection period is defined as the time required to prevent concrete from being affected by exposure to cold weather.”

In addition, ground must never be frozen and should be free from snow and ice.

## What Are the Risks?

- decreased strength and durability
- cracking or pitting
- undesired finish

## What Precautions Can Be Taken?

- use heaters to thaw the ground
- alter the mix of the concrete
- use curing blankets to prevent freezing
- maintain concrete temperature of above 40 degrees post-pour



## Planning Your Pour

We do our best to provide customers with an accurate date of their pour; however, that date can change as the forecast changes. It is not ideal, but we do this to ensure that we deliver the best product available. The best approach is to understand the effects of cold weather, be flexible, and know that our primary goal is to provide you with the quality and durability you expect.