



Cold Weather

Definition: a period when the average daily ambient temperature is below 40°F (5°C) for more than 3 successive days.

Note: The average daily temperature is the average of the highest and lowest temperature during the period from midnight to midnight. When temperatures above 50°F (10°C) occur during more than half of any 24-hour duration, the period shall no longer be regarded as cold weather.- [ACI Concrete Terminology](#)

Cold weather exists when the air temperature has fallen to, or is expected to fall, below 40°F (5°C) during the protection period. The protection period is defined as the time required to prevent concrete from being affected by exposure to cold weather. Concrete placed during cold weather will develop sufficient strength and durability to satisfy the intended service requirements when it is properly produced, placed, and protected. The necessary degree of protection increases as the ambient temperature decreases. The objectives of cold weather concreting practices are to prevent damage to concrete due to freezing at early ages, ensure that the concrete develops the required strength for safe removal of forms, maintain curing conditions that foster normal strength development, limit rapid temperature changes, and provide protection consistent with the intended serviceability of the structure.

For additional information see ACI 306R-16 “Guide to Cold Weather Concreting” or contact Northeast Solite at 845-246-9571.