

Cold Weather Concrete Pavement Protection Guidelines

The following guidelines can be used to determine what curing or covering requirements are necessary for newly constructed concrete pavement. These are only guidelines, the Contractor must use proper judgement in assuring that the concrete pavement does not freeze. These guidelines are considered to be the minimum protection against frost, use of these guidelines does not guarantee concrete won't freeze or sustain other cold weather damage.

All of the materials listed below should be used in conjunction with regular membrane curing compound or extreme service membrane curing compound, depending on the date and location of the project as stipulated in specification 2301.3M. Placement of blankets and plastic shall be in conformance with 2301 and all other applicable specifications.

One sheet of plastic: If overnight low temperature is expected to be from approximately 3 to 6 degrees Fahrenheit below freezing.

Two sheets of plastic: If overnight low temperature is expected to be from approximately 7 to 10 degrees Fahrenheit below freezing.

Straw or similar insulating material: If overnight low temperature is expected to be approximately 10 degrees or more below freezing.

Another good reference is the brown PCA book “Design and Control of Concrete Mixtures, 13th Edition” – Chapter 12 Cold-Weather Concreting.