

# BASIC COLD WEATHER CONCRETE PROCEDURES



**1. Do not place concrete on freezing subgrade.**

**2. Keep steel reinforcement above freezing temperature.**

**3. Increase the amount of cement in the mix to achieve earlier strength gain.**

**4. Use as much accelerating admixture as can be handled to reduce set time and bleeding.**

**5. Place concrete at a reasonable slump. Do not finish surface while bleed water is still evident.**

**6. Cover surface with insulating blankets as soon as possible after finishing. Be aware that edges of concrete are most susceptible to freezing.**

**7. Do not remove blankets once they have been placed. You will lose concrete temperature which is necessary for strength gain. You could also cause thermal shock and cracking.**

**8. Liquid membrane curing/sealing compound is not required for cold weather concrete. If job specs call for a curing compound it must be placed immediately after finishing before blankets go on. Only use a breathable curing compound that will let water vapor still escape from the concrete so freezing does not occur.**

**9. Leave insulated blankets on the concrete for approximately 7 days.**

**10. If a sealer is required it should be applied at a later date after concrete is fully cured. Temperature should typically be above 50° F.**





# FREEZE RESISTANT CONCRETE ADMIXTURE INFORMATION



1. Use only when ambient temperature is 20° F and rising.

2. Concrete should be a 6.5 bag 4,500 PSI mix design as a minimum.

3. Concrete should be air entrained.

4. Insulating the concrete is not necessary to protect from early freeze damage.

5. Concrete should be cured for continued strength gain after initial set.

6. Do not place concrete on frost or frozen subgrade.

7. Do not allow external water or precipitation to enter the concrete during placing or finishing.

8. Refer to ACI 306 for complete guide to cold weather concrete practices.

