



Hot Weather Curing

Production and installation of high quality concrete includes curing of the concrete. Curing is protecting the concrete from rapid loss of moisture during warm/hot weather. Curing is protecting the concrete from cold weather/freezing during cool/cold weather.

Hot weather curing

Concrete gains its strength from moisture being in continuous contact with the Portland cement and cementitious materials. As long as there is moisture present throughout the concrete, the concrete will continue to gain strength and associated durability.

If moisture is not kept in the concrete, the concrete may achieve only 60% of its designed strength. A 4500 psi. concrete mix may achieve 28-day strengths of 2700 psi., if left to dry out in hot weather without proper curing.

Curing can be successfully accomplished by several acceptable procedures.

1. The most common procedure to cure concrete in hot weather is the application of a film forming- spray on curing compound. [Available at all VanDerVart locations]
2. The concrete can be wet cured. [Not recommended for colored concrete] This process is the most effective curing method but may be difficult to properly achieve. The concrete must be constantly kept wet [with water temperature being a constant] twenty four hours per day for a minimum of ten days. Repeated application of water from a lawn sprinkler on the concrete is not proper curing unless the water is running continuous. If the concrete is saturated with cold water from a garden hose and then let to dry out from the sun before reapplication of water again, the concrete is subject to thermal shock and may crack. Concrete placed in summer conditions will easily reach temperatures over 100 degrees. The application of cold water from a garden hose is typically fifty degrees. The application of cold water [tap water] on freshly placed concrete that has a temperature of eighty degrees or higher will likely create a thermal shock to the concrete. When the concrete is kept wet continuously for at least 10 days, the concrete will gain the designed strength, and shrinkage will be kept to a minimum.

After the concrete has been cured properly, a high quality sealer should be applied to protect the concrete surface. Concrete sealers protect against deicing agents, surface abrasion, oils, and lawn fertilizers that can harm concrete and create staining.

Concrete sealers are available in satin finish, semi-gloss, and high gloss appearance. Non-slip polypropylene aggregate is available to add to sealers to provide a slip resistant surface when desired.

Ask your VanDerVart representative for a suggested product listing to properly cure and seal your concrete.