

Hot-Weather Concreting Checklist

Like the human body, concrete requires some special precautions to deal with hot weather conditions.

Project planning for hot-weather concreting should include the following measures:

- Think ahead. Have the proper equipment, manpower and protective measures in place well ahead of time.
- Concrete sets faster in hot weather. Setting can be delayed by using a Kuhlman concrete containing a set-retarding admixture. Reduce the time between placing concrete and applying the curing material.
- Immediately prior to concrete placement, spray the forms, reinforcing steel and subgrade with water to prevent water absorption from the concrete and reduce the temperature of all the surfaces the concrete will come in contact with.
- To offset the effects of dry warm wind, low humidity, or hot temperatures, erect sun shades and wind barriers to protect the fresh concrete from stiffening or crusting and to help minimize cracking, crazing, plastic shrinkage and rubber sets.
- Discharge concrete as soon as the Kuhlman truck arrives at the job site. Prolonged mixing in hot weather increases the temperature of the concrete, which makes it set faster and shortens the placing and finishing time.
- Promptly notify your Kuhlman dispatcher of any job-site delays so that your deliveries can be rescheduled.
- Vibrate or screed without delay. After screeding, and as needed during floating and troweling operations, spray the surface of fresh concrete with an evaporation retardant to prevent crusting, plastic shrinkage, or rubber setting. If an evaporation retardant is not used, protect the surface from rapid drying by covering it with vapor-proof sheeting or by fogging or misting. Do not over-vibrate or over-finish the surface. Do not use a cement shake as a surface drier.
- Protect test specimens cast during placement by immediately covering them with damp burlap and maintaining them at 60 to 80 degrees Fahrenheit to prevent serious reduction in strength from exposure to high temperatures and wind. (After 24 hours, carefully move the specimens to curing facilities and store them until the time of the test.)
- Start curing the concrete immediately after finishing. Curing can be accomplished in a number of ways, but the simplest, most economical and widely used method is a liquid membrane “cure-and-seal” which is sprayed or rolled on the surface of a slab as soon as practical after finishing. This must be applied at a rate not thinner than the manufacturer’s instructions. Tops of walls and columns should be wet-cured and covered.



Call your knowledgeable Kuhlman representative for help with hot-weather project planning, ready-mixed concrete, and curing/sealing and protective materials.