

Weather Restrictions: Concrete - site mixed or delivered.

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Connect to your favourite weather forecaster and look for the following conditions:

Category: Concrete Product: All site mixed or delivered concrete

Temperature Limitations: Use above +2 C (+35 F)

Rain Limitations: No rain until surface is firm -- several hours

Wind Limitations: n/a

Humidity Limitations: Dry weather will require more misting to keep the concrete moist

Continuous Conditions: Must be kept frost free and damp for 72 hours

Comments: Concrete must be kept both wet and above freezing for three days for minimum strength, 28 days for maximum strength. If freezing conditions are forecast, it is possible to add products to the concrete to cause it to generate heat and accelerate setting, permitting pouring of concrete in the dead of winter. You can also protect concrete from freezing with insulation or from light frost with a tarpaulin (like protecting the roses). Protect it from drying with coverings or water misting. In hot windy weather you must mist more than in cold humid weather. If you let the surface dry too fast, it will weaken and quickly spall off with the first stress of winter.

Weather limitations on most renovation products can be located on the WEATHER tab above.

APPLICATION / INSTALLATION DETAILS

Concrete is often a poorly understood product.

First CEMENT and CONCRETE are not synonyms. Cement is only the glue that holds sand, stone and whatever else is in a particular concrete mix together.

Concrete gets hard and strong not by drying but by "curing" -- a chemical process that requires water. Concrete should not be allowed to dry out on the surface for at least 3 days and in fact it will not reach its full strength for 28 days.

Concrete should not be smoothed out too much or you weaken the top surface -- pushing all the large rocks down and bringing up all the fine material to the top. Strong concrete is a good mix of all those different particle sizes.

Concrete is very strong under compression -- and very week under shear or tension forces. You can't crush a concrete paving stone but you can easily crack it.

If you put too much water into the mix, it flows more easily but it will surely develop shrinkage cracks. So to build with concrete you have to understand the nature of its strengths, weaknesses and shrinkage -- keeping all unnecessary water out of the mix and sometimes adding steel reinforcement before you pour.

Concrete surfaces outdoors are easily prone to "spalling", bits and pieces popping off.

It would be a good idea to read the database entry on CONCRETE IN A COLD CLIMATE.

Searching the database on the keyword CONCRETE will yield a lot of related information.

Keywords:

Porch, Stone, Shrinkage, Landscaping, Decks, Garage, Joints, Outdoors, Slab-On-Grade, Paving, Renovation, Spalling, Driveway, Concrete, Products, Stairs, Sand, Foundation Membrane, Rock, Walkway, Water, Cracks, Basement, Weather