

Concrete Curing

Concrete develops its properties of durability, wear resistance, permeability and strength over time, rapidly at first but then more slowly. To develop these qualities, the prolonged hydration of cement must be encouraged. Hydration requires the presence of moisture and a favourable temperature. The ideal temperature range is 10 to 30°C.

Concrete should be protected from an early loss of moisture or freezing. The excessive loss of moisture can cause shrinkage cracking as strength development has not occurred to withstand the stresses resulting from the loss of volume (due to loss of water). A good curing environment should exist immediately after finishing, and for as long as possible after placing.

Suggested curing methods

Curing compounds

- Apply after finishing when bleedwater disappears.
- Apply twice at right angles to each other to form continuous film.

Covering

- Impermeable covering such as plastic sheet will trap moisture on concrete surface.
- Use wet straw, hessian, sand or sawdust (avoid staining) if no other alternatives.

Spraying

- Keep continuously wet to avoid crazing.
- Use low pressure supply to avoid any surface damage.

Ponding

- Build low wall and fill with water to cover slab

Consult your Allied Concrete representative for specialised information.

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Allied Concrete have endeavoured to present the best possible information. However, it disclaims any responsibility for the application of the principles discussed.

