



EFFECTIVE WAYS OF CURING

UltraTech
C E M E N T

The Engineer's Choice

CURING

Maintenance of moisture and temperature of freshly placed concrete to ensure proper hardening of the concrete for attainment of desirable strength and durability.

WHAT DOES CURING DO?

- ✓ Retains moisture in the concrete surface
- ✓ Prevents loss of moisture by evaporation
- ✓ Reduces shrinkage cracks
- ✓ Increases compressive strength, improves durability, wear resistance & water tightness
- ✓ Essential for promoting hydration (process of hardening/strength gain)

METHODS OF CURING

Wet Covering

- ✓ Cover the concrete surface with wet gunny bags/burlaps/straw etc.
- ✓ Sprinkle water on the wet coverings at short intervals
- ✓ Do not allow the coverings to dry even for a short duration
- ✓ Suitable for concrete columns, slabs, sloped roofs etc.



WET COVERING
For Columns

Ponding

- ✓ Construct small bunds with lean mortar/clay on the flat concrete surface
- ✓ Store water to a depth of 50mm
- ✓ Ensure that water is replenished to maintain desired depth
- ✓ Suitable for concrete slabs and pavements



PONDING
For Slabs & Pavements

Sprinkling or Spraying

- ✓ Sprinkle water continuously using mechanical sprinklers
- ✓ Intermittent sprinkling may cause formation of cracks
- ✓ Suitable for floors, columns etc.



SPRAYING/SPRINKLING
For Plastering & Masonry

Membrane Curing

- ✓ Use liquid membranes such as Bituminous and Asphaltic emulsion, Rubber latex emulsion, Emulsions of resins, Varnishes, Waxes etc. which form a thin layer and act as a physical barrier to prevent loss of moisture from the concrete surface
- ✓ Solid membranous materials such as Polythene sheets or water proof paper can also be used to cover the concrete surface
- ✓ Suitable for both horizontal and vertical members



MEMBRANE CURING
For Pavements

DOs & DON'Ts

- ✓ Start curing immediately after the concrete has slightly hardened enough to take the load of a person walking over it
- ✓ During summer/windy days, prevent drying up of the freshly laid concrete surface by sprinkling water from a distance till curing is started
- ✓ Do not walk over freshly laid concrete for sprinkling of water
- ✓ Water fit for drinking must be used for curing
- ✓ Do curing continuously, intermittent curing results in cracking and crazing of concrete
- ✓ Improperly cured concrete structures experience early surface deterioration and reduced service life

FOR BEST RESULTS CURE CONCRETE*

Under Normal Weather Conditions

- ✓ Min. 7 days - Concrete made with Ordinary Portland Cement (OPC)
- ✓ Min. 10 days - Concrete made with Blended Cement (PPC, PSC)

Under Hot Weather Conditions (Concrete temperature greater than 40° C):

- ✓ Min. 10 days - Concrete made with OPC
- ✓ Min. 14 days - Concrete made with PPC, PSC

(* as recommended by IS 456 :2000)

Effects of Delayed Curing

- ✓ Curing started after 3 days, reduces 7 day strength by 12% and that of 28 days by 10%
- ✓ Air exposed concrete will reduce 50% of the strength as compared with moist cured concrete



**Call Toll free
1800-425-2525**

- To talk to our **Mobile Concrete Expert ***
- For **Technical /General assistance**
- For **RMC Bookings**

UltraTech Cement Limited

** Conditions apply. Services available in select cities/locations only*

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