

As a contractor, builder, or homeowner placing concrete, you'll want to help prevent surfaces blemishes, minimize cracking and avoid weak concrete.

To have durable exterior concrete flatwork, place and properly finish a quality air entrained concrete mix, use proper finishing techniques, **CURE the concrete**, and keep deicers off the concrete during the first year.



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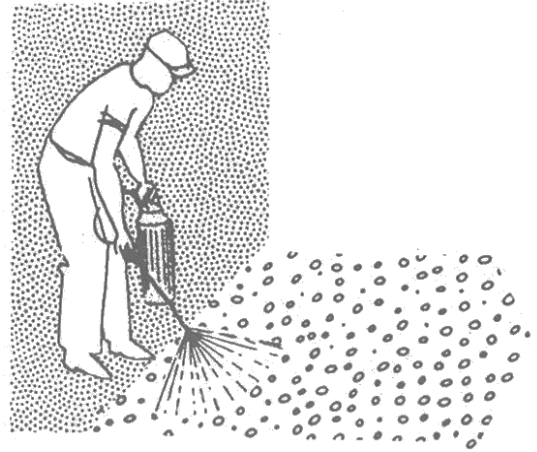
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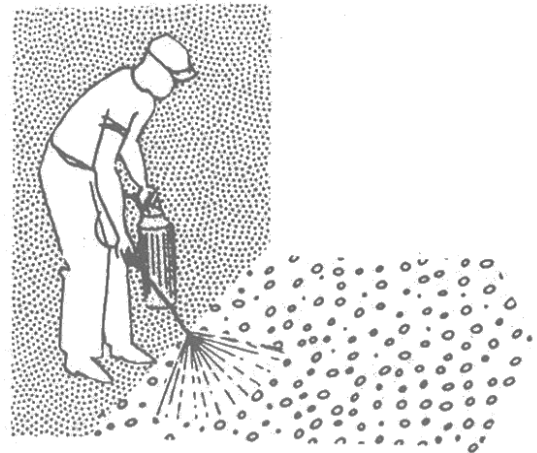
WHY CURE CONCRETE?



Curing -

- Helps concrete gain strength
- Helps reduce shrinkage of concrete thus preventing surface cracking
- Increases surface hardness helping to reduce abrasion damage
- Make the concrete more watertight
- Helps resist freeze thaw damage and damage from deicers

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All concrete should be cured whether it is exterior or interior, horizontal or vertical, residential or commercial construction. Concrete gains strength and durability through a chemical reaction known as hydration. Hydration is when the cement in concrete and water chemically react to form a hardened paste. For proper hydration to occur the concrete must be kept moist and above 55° F for approximately a week. Studies have shown that without proper curing, concrete may lose up to 50% of its strength.

How to Cure - Typical concrete has enough moisture in it to achieve proper hydration if curing is begun within an hour after final finishing or after the visible water sheen is gone. The concrete must be kept continually warm and moist until adequate strength is achieved.

Wet Curing – Concrete can be cured by placing burlap, cotton mats, curing mats that are kept continually moist. In addition the concrete could be kept continually moist by ponding water or continuously sprinkling with water on the concrete surface. Note: Wet curing methods should be used if the local sand aggregate is known face.

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Plastic Sheets – Plastic sheets can be used to retain moisture in the concrete however if the sheet is not kept completely flat surface discoloration may occur.

Waterproof Paper – Waterproof paper can be used similar to plastic sheets however they will not mar the concrete surface.

Liquid Membrane-Forming Curing Compounds – Commercially available curing compounds applied by spraying or rolling on are a common form of curing. The compounds normally are applied at a rate of 150 to 200 Sq. Ft. per gallon however products may vary, so manufacturer's recommendation should be followed.

In cooler temperatures, insulating blankets should be used to keep temperature of the concrete above 55° F. In cold conditions, supplemental heat provided through properly vented heaters or ground heaters may be necessary.

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