



- Hot Weather Tips For Tilt-Up Concrete -

The information below gives a quick summary of what can be done to prevent hot weather from having a negative impact on your tilt-up concrete project. More detailed information is available in the Tilt-Up Bondbreaker Construction Updates listed below and in the Silcoseal Product Data Sheets, all of which are available online at www.nox-crete.com. You can also call us at (800) 669-2738 for more information or to request copies of any of this information.

Cure And Bondbreaker Application

Hot weather can cause premature drying of the concrete casting slab surface, causing it to be overly-porous, exhibit cracking and crazing and have reduced surface strength. The inclusion of pozzolans, such as fly ash, in the concrete mix design can further exacerbate the situation. One of the best ways to offset the effects of hot weather is with modified curing and bondbreaker application techniques. Nox-Crete makes the following recommendations when using Silcoseal tilt-up cure and bondbreakers:

- 1) Apply the Silcoseal cure coat **immediately** after final finishing and preferably prior to control joint cutting. Apply to the point of uniform surface film accumulation. Slabs with exceptionally porous surfaces or rougher finishes may require heavier applications to ensure adequate holdout and uniform surface accumulation.
- 2) Immediately before application of the Silcoseal bondbreaker coats, saturate the casting slab surface with water, removing the excess with a squeegee or compressed air. This practise is especially recommended if the slab was improperly cured, the application of the cure coat was delayed or if the slab is suspected of being porous.
- 3) Apply successive Silcoseal bondbreaker coats until the casting slab surface appears uniformly dark for a minimum of 2-4 hours and has a dry, soapy feel in all areas. Do not allow Silcoseal to accumulate in low spots or depressions.

Panel Concrete Placement

Very porous casting slabs can cause the “osmotic effect” to occur, even when adequate bondbreaker has been applied. In simple terms, the “osmotic effect” refers to the natural tendency of water to migrate from wet to dry. This means that when fresh panel concrete is placed on a porous casting slab, water will migrate from the fresh concrete into the dry casting slab, leaving the wall panel surface concrete without adequate water for proper hydration. This can result in dusting or skin pull off on the panel surfaces.

The minimize the osmotic effect:

Immediately prior to placement of the panel concrete, saturate the casting slab with water, squeegeeing off or blowing off the excess with compressed air.

Further information is available in our Tilt-Up Bondbreaker Construction Updates “Hot Weather Applications” and “Avoiding The Osmotic Effect” and in the Silcoseal Product Data sheets, all of which are available online at www.nox-crete.com or by calling (800) 669-2738.