

Proper Slab Curing



PROPERLY CURED SLAB PREVENTS CRACKS

A stone or brick patio is only as good as the slab it is set on. Many factors contribute to a sound base. These include but are not limited to a proper sub grade, correct mix ratios, control or expansion joints, and allowing

enough time for the slab to cure properly.

Ideally a concrete slab should be allowed to cure 28 days prior to setting stone or other paving products on it. Many masons pour slabs and start setting material on it the next day. This is a dangerous practice. Not allowing the slab to cure can cause the shrinkage cracks in the slab to produce cracks in the stone or other paving material installed on top. Chemicals from the uncured slab are absorbed by the stone causing discoloration and sometimes damage to the stone. ConcreteNetwork.com is an excellent resource for concrete techniques.

POINTS OF INTEREST

- ◆ Subgrade should be well compacted.
- ◆ Water to cement ratio should not exceed .50 to reduce slab permeability.
- ◆ Wire reinforcing should be supported so it lies fairly centered within the slab.
- ◆ Moist cured concrete reaches a higher strength earlier than concrete exposed to dry air.

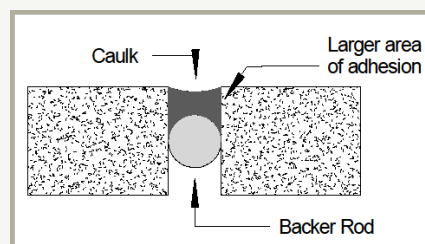
Joint Sealing in Masonry

Rule number one in applying joint sealers is:

READ THE INSTRUCTIONS!

Most joint sealers, or caulks should be applied at a minimum depth of 1/4" and a maximum of 1/2" to 3/4". Backer rod should be used for most joints wider than 1/4" to prevent the caulk from being placed too deep and adhering to the bottom of the crack. It provides a bond breaking surface that prevents a three point adhesion which often causes product

failure. Properly placed caulks (joint sealers) should adhere to the 2 sidewalls and not the bottom allowing the sealant to stretch more freely without breaking its bond to the masonry.



POINTS OF INTEREST

- ◆ Joints must be clean, dry, and free of dust before sealing.
- ◆ Read the product data on the sealant and make sure it is appropriate for your application.
- ◆ Use backer rod on joints wider than 1/4" to control depth and avoid 3 point adhesion.
- ◆ Read the instructions.

Damp Proofing Limestone



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IN THE FAQ SECTION YOU WILL
FIND HELPFUL DATA SHEETS.

MANY OF OUR PRODUCT
PAGES HAVE
PRINTABLE PDF'S THAT
INCLUDE PHOTOS AND
PRODUCT DESCRIPTIONS.

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When limestone is to be used at or below grade, damp proofing must be applied to the backs of the stone prior to installation. Where limestone is used as a paving at grade, and where the stones will act as an evaporation surface, the damp proofing must be carried up the vertical edges to grade level. On vertical applications such as door headers and sills, it is also recommended to damp proof the back surfaces. Moisture carrying alkalis from the cement based setting beds and structures often leech through the limestone leaving brownish stains on the surface. White Thoroseal is a recommended damp proofer for Indiana Limestone and similar light colored porous stones.

It is not uncommon to see this same staining on thermal blue-stone and even hard granite pavers that are 1" thick. This is often a problem when the slab has not been allowed to cure fully or the concrete was excessively wet. The first article on page one discusses this issue.

The Indiana Limestone Institute of America's website is a great resource for anyone working with limestone. Check it out at:

www.iliai.com

Stonedust vs. Concrete Sand

Stonedust, or screenings as it is sometimes called, has become the standard for setting material for hardscape paving. The old standard was concrete sand, but when stonedust popped onto the landscape scene it was popular because of its packing qualities. Unfortunately some of the benefits of using concrete sand have been forgotten. Sand drains much better than stonedust, and therefore allows moisture in the ground to

drain away from paving products.

Stonedust tends to hold moisture which can often cause staining in stone flagging and encourage mildew growth on brick and stone. Stonedust also tends to pack harder which does not allow it, when tamped, to work up into the joints and lock in the paving material.