



chemical solutions to concrete problems

Residential Concrete

Winter Protection Plan & Extended Warranty



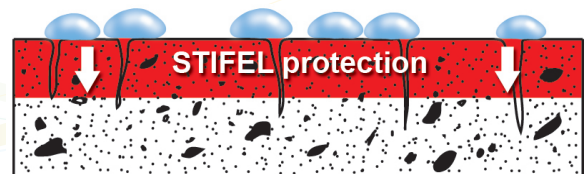


The Midwest offers one of the harshest environments for residential concrete. Exposure to high concentrations of corrosive road salt and more freeze/thaw cycles than anywhere else in the country, residential concrete in the Midwest must be properly batched, placed and protected in order to withstand these destructive forces. Without these safeguards, it is almost assured that exposed concrete will succumb to freeze/thaw-related surface delamination and scaling.

UNDERSTANDING THE CAUSE

When water freezes, it increases in volume approximately 9%. Concrete surfaces which absorb water are subject to that increased pressure from below the concrete surface, where the water changes to ice. When the forces exceed the tensile strength of the concrete, it fractures and this results in a small spall.

Over time, these spalls will continue to increase in size as water absorbs deeper into the concrete with each freeze/thaw cycle where the process of freezing, expanding and thawing repeats. Exposure to the sun, changes in ambient air temperature and the application of deicing salts produce freeze/thaw cycles. Eventually, enough spalls combine to form surface scaling.



***Once scaling has occurred, the only remedy is repair or replacement.
Prevention is far more economical and efficient.***



CREATING DURABLE CONCRETE SURFACES

Sustainable exterior concrete that is both attractive and serviceable for many years after placement requires careful attention to detail from the very start. Substrate preparation, concrete mix design, finishing methods, curing and sealing all play a part in creating durable concrete. Industry resources such as the American Concrete Institute and your local ready mix supplier can provide guidance for placement methods, mix design and finishing/curing best practices.

LONG-LASTING PROTECTION

To provide concrete with the best protection against water and deicing salt absorption, a silane sealer should be applied before exposure to freeze/thaw conditions occurs. As a leading manufacturer of quality concrete construction chemicals, Omaha-based Nox-Crete offers a full line of products backed by over 50 years of industry experience, including our STIFEL line of silane based water repellent sealers.

Many of the concrete protectants available are simply surface coatings that offer only short term protection. Eventually these surface films are compromised by exposure to the sun, weather and traffic and concrete is again left unprotected. Unlike these coatings, STIFEL water repellent sealers incorporate a special, patented silane that, because of its extremely small molecular size, allow it to deeply penetrate concrete substrates as much as a 1/2" inch in depth. Upon contact with the siliceous materials present, STIFEL reacts chemically with the surrounding concrete to form a long-lasting hydrophobic barrier. This barrier then protects treated surfaces from the absorption and damage caused by water, waterborne deicing salts and repeated freeze/thaw cycles. This protection is long-lasting to the depth of penetration, requiring reapplication only after years of service.

Concrete surfaces treated with STIFEL will not look any different then they did prior to application. Texture, color, etc. will remain unchanged.

DURABILITY GUARANTEED

Nox-Crete offers Owners and/or Applicators a guarantee for residential concrete. By following industry guidelines and the use of our STIFEL water repellent sealers, Owners and/or Applicators can receive a 3-Year Extended Warranty for application of STIFEL GC or a 5-Year Extended Warranty for application of STIFEL SC. This Extended Warranty gives additional assurance that concrete surfaces properly treated with STIFEL will maintain a water repellent effect that will minimize freeze/thaw related surface scaling.

To receive an Extended Warranty on your residential concrete, read the enclosed information, follow the guidelines and specifications indicated and complete and return the Extended Warranty Application. Peace of mind couldn't be simpler!

