

NOX-CARB



Breathable, pigmented, water repellent sealer/stain for exterior concrete and masonry surfaces.

Meets Federal VOC Requirements = NOX-CARB • Meets Lower VOC Requirements = NOX-CARB LVOC

HOW IT WORKS

NOX-CARB penetrates concrete's invisible micro-pores and chemically bonds with the substrate to beautify the surface and provide long term protection from water and chloride ion absorption.

APPLICATIONS

- ◆ Specifically designed to protect and beautify vertical cast-in-place, tilt-up and precast concrete and masonry surfaces.
- ◆ For use on smooth face, broken face and fractured fin concrete blocks to reduce moisture absorption from wind driven rain.
- ◆ For use on concrete sound barrier walls, interstate median barriers, bridge beams, columns, abutments and slope paving to protect exposed surfaces from water and deicing salt related chloride ion absorption.
- ◆ For use in protecting exposed vertical concrete and masonry surfaces from water and deicing salt induced corrosion of reinforcing steel and freeze/thaw related scaling damage.

ADVANTAGES

- ◆ Contains a patented, low molecular weight, water repellent silane additive to minimize water and chloride ion absorption.
- ◆ All versions are available in a high performance (NOX-CARB HP) and a standard performance (NOX-CARB SP) version.
- ◆ Texture additive options available for improved masking of surface defects.
- ◆ Penetrating nature results in minimal surface film accumulation and provides deep, long lasting protection and color.
- ◆ Colors and brightens surface appearance without adversely affecting moisture vapor transmission.
- ◆ Provides excellent resistance to water permeation without impairment of water vapor transmission characteristics.
- ◆ In exterior applications, protects concrete and masonry surfaces requiring maximum sealer resistance to ultraviolet induced color change, chalking, or rapid performance loss due to exposure.
- ◆ Reduces the occurrence of efflorescence on all treated concrete and masonry.

- ◆ Provides enhanced resistance to air pollutants, acid rain and carbon dioxide induced carbonation.
- ◆ Reduces moisture absorption and chloride ion intrusion.
- ◆ Protects concrete and masonry in coastal areas from sea mist, water and chloride ion intrusion.
- ◆ Prevents moisture absorption and staining from condensation, retards microbial and fungal growth, brightens surfaces and facilitates cleaning of concrete ceilings and walls in food handling plants, chill rooms and coolers.
- ◆ NOX-CARB meets all federal VOC requirements. NOX-CARB LVOC is VOC compliant in all U.S. states.

PRECAUTIONS

- ◆ Do not use where the possibility of hydrostatic pressure exists or in applications involving substrate immersion.
- ◆ Application to concrete block or other masonry unit surfaces with raked (recessed) mortar joints or simulated joints and/or fractured fin or broken face type masonry units may require the application of a penetrating silane sealer to provide adequate water repellency prior to the application of NOX-CARB.
- ◆ Integral water repellent additives in concrete masonry units or mortar may affect the adhesion and penetration of NOX-CARB.
- ◆ Do not apply to wet or damp substrates.
- ◆ Application of NOX-CARB to substrates subject to moisture entry through surfaces not receiving NOX-CARB treatment or adequate crack repair may result in moisture entrapment and related substrate darkening, discoloration or efflorescence.

USE INSTRUCTIONS

- ◆ Request current product literature, labels and material safety data sheets from manufacturer and read thoroughly before product use.
- ◆ Site environmental conditions, substrate conditions and construction have a major effect on product selection, application methods, procedures and rates, appearance and performance. Product literature provides general information applicable to some conditions. However, an adequate site test application by the purchaser or installer in advance of

NOX-CARB

Stain & Seals



chemical solutions to concrete problems

field scale use is mandatory (irrespective of any other verbal or written representations) to verify that product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.

- ◆ Concrete must be a minimum of 28 days old, dry and free from dust, dirt, oil, debris, concrete cures, bond breakers, sealers, rubber residue, paints, form release agents, and other compounds which would prevent NOX-CARB from penetrating. Substrate temperatures should be between 40° and 90° F (5° and 32° C). Best results are obtained when product is applied to shaded surfaces or at low sun angles.
- ◆ All surfaces require some preparation. While in most instances chemical or mechanical scarification is not necessary, excessively smooth dense surfaces or surfaces evidencing laitance or efflorescence accumulation may require power washing (3000 psi min.) with possible use of trisodium phosphate (TSP) or mild acid etching prior to sealing.
- ◆ Excessively oily or greasy concrete may require degreasing and detergent scrubbing prior to pressure washing or mechanical cleaning.
- ◆ Apply all joint sealants prior to application of NOX-CARB.
- ◆ NOX-CARB is typically applied in two coats to most substrates. A primer is not needed. Allow first coat to dry a minimum of 12 hours before applying the second coat.
- ◆ Coverage rates may vary widely depending upon type of substrate, surface texture, density, color selection, and desired appearance. Typical combined effective coverage rate is 100-400 sf/gal (2.5-10 sm/l).
- ◆ Add Component B and pigment pack to Component A and mechanically mix thoroughly, avoiding the incorporation of air.
- ◆ Promptly apply by roller, brush or airless sprayer to the point of saturation and surface rejection. Do not allow runs or puddles to persist more than 60 seconds.
- ◆ If spray application is used, promptly back roll all treated surfaces. To avoid color irregularities always work to a wet edge, corner or straight line joint.
- ◆ Discard unused material from sprayer or power roller promptly following application.
- ◆ Promptly clean application equipment with an aromatic solvent, such as xylene or aromatic 100.
- ◆ Washing NOX-CARB treated surfaces with detergent solutions is recommended when necessary to remove any accumulation of foreign substances.
- ◆ Do not use steam or high pressure washing equipment to clean NOX-CARB treated surfaces.
- ◆ Verify compatibility of cleaning materials with adequate test application.

TECHNICAL DATA

| | Nox-Carb SP & HP | Nox-Carb LVOC SP & HP |
|-----------------------------|---------------------------------|--------------------------------------|
| Flash Point | >100° F (38° C) | >50° F (10° C) |
| Vapor Pressure | <5 mm Hg @ 20° C | 39.62 mm Hg @ 20° C |
| VOC | <600 gm/l | <400 g/l |

TEST DATA

| | NOX-CARB HP | NOX-CARB SP |
|--|---|--------------------|
| Adhesion Test | | |
| ASTM D-4541 | 650 psi | 600 psi |
| Water Absorption After 48 Hours | | |
| ASTM C-642 | <0.25% | <0.40% |
| Water Absorption | | |
| ASTM D-6489 | | |
| 24 Hours | >98% Reduction | >95% Reduction |
| 48 Hours | >97% Reduction | >94% Reduction |
| Water Absorption, Rilem Tube Method | | |
| Concrete Block | 99% Reduction | 95% Reduction |
| Precast Concrete | 99% Reduction | 96% Reduction |
| Water Vapor Transmission - WVT | | |
| ASTM D-1653, Mthd. B, Cond. A | 2.4 grains/ft ² /hr(40.3 grams/m ² /24 hrs) | |
| Water Vapor Permeance - WVP | | |
| ASTM D-1653, Mthd. B, Cond. A | 5.8 Perms (3.8 Metric Perms) | |

PACKAGING

Product is packaged in 5 gal. (19 l) / 54 lbs. (22.5 kg) steel pails.

SHELF LIFE

Shelf life is one year. Use before the "USE BY" date stated on product packaging.

HANDLING/STORAGE

Store in a dry location within a temperature range between 40° F (4° C) and 100° F (38° C). Do not return withdrawn material to original container.

AVAILABILITY &

TECHNICAL SERVICES

In addition to corporate offices in Omaha, Nebraska, NOX-CRETE Products Group maintains regional offices and distribution centers in principal markets throughout the world. For source or technical information, phone (800) 669-2738 or (402) 341-1976.

LIMITED WARRANTY

NOTICE-READ CAREFULLY

CONDITIONS OF SALE

NOX-CRETE offers this product for sale subject to, and Buyer and all users are deemed to have accepted, the following conditions of sale and limited warranty which may only be varied by written agreement of a duly authorized corporate officer of NOX-CRETE. No other representative of or for NOX-CRETE is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

NOX-CRETE warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, NOX-CRETE will replace the defective product with new product without charge to the purchaser.

NOX-CRETE makes NO OTHER WARRANTY, either express or implied, concerning this product. There is NO WARRANTY OF MERCHANTABILITY. In no case shall NOX-CRETE be liable for special, indirect or consequential damages resulting from the use or handling of the product, and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which damages are claimed.

INHERENT RISKS

NOX-CRETE MAKES NO WARRANTY TO THE PERFORMANCE OF THE PRODUCT AFTER IT IS APPLIED BY THE PURCHASER, AND PURCHASER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OR APPLICATION OF THE PRODUCT.