

# ACRYL PEN

Penetrating, high performance, pigmented, light stable sealer and stain for exterior horizontal concrete surfaces.

Meets Federal VOC Requirements = ACRYL PEN • Meets Lower VOC Requirements = ACRYL PEN LOW VOC

## HOW IT WORKS

ACRYL PEN's uniquely reactive silane chemistry results in penetration of concrete's invisible micro-pores, as well as the larger visible macro-pores, and penetration into all surface cracks, including the normally invisible minute crazing cracks occurring during the curing/shrinking process. ACRYL PEN enters concrete and preferentially reacts chemically with concrete components forming a chemical bond that defies dissolution. Subsequently, the components polymerize forming a flexible network that seals micro-cracks and acts to prevent water molecules in liquid state (absent head pressure) from entering substrate, yet allowing positive water vapor transmission.

## APPLICATIONS

- ◆ Primarily designed for exterior applications.
- ◆ Use to beautify and seal pedestrian walkways, balconies, plaza decks and entryways.
- ◆ Ideal for use on sporting arena concourses, walkways and ramps.
- ◆ Use in exterior food preparation areas to prevent food staining and to facilitate cleanup.
- ◆ Use in exterior shopping mall and food court applications to beautify, seal and protect exterior concrete.

## ADVANTAGES

- ◆ Penetrates and bonds permanently with concrete.
- ◆ Will not fade, chalk or flake.
- ◆ Protects concrete surfaces from abrasion, delamination and related cracking and freeze/thaw damage and from staining from food or oil.
- ◆ Protection is deep within substrate surfaces where it is not subject to early failure due to weather factors, traffic or other abrasive mechanisms.
- ◆ Allows precise color application for detailed designs.
- ◆ Breathable to allow water vapor transmission.
- ◆ Minimal surface film accumulation.
- ◆ A non-slip additive can be incorporated for increased slip resistance.

- ◆ Available in 11 standard colors. Custom colors are also available. Call NOX-CRETE for details.
- ◆ ACRYL PEN LOW VOC complies with the more restrictive air quality, lower VOC requirements of some states.
- ◆ Meets all federal VOC requirements.

## PRECAUTIONS

- ◆ Not for application to smooth troweled concrete surfaces. Use only on broom finished or float finished concrete surfaces.
- ◆ Do not use where possibility of hydrostatic pressure exists or in applications involving substrate immersion.
- ◆ Application of ACRYL PEN or ACRYL PEN LOW VOC to surface dry substrates that are internally wet may result in excessive surface film accumulations and mottling or discoloration.
- ◆ Application of ACRYL PEN or ACRYL PEN LOW VOC to substrates subject to moisture entry through surfaces not receiving ACRYL PEN treatment may result in moisture entrapment and related substrate darkening.
- ◆ Excessive or multiple applications of ACRYL PEN or ACRYL PEN LOW VOC may develop sufficient film accumulations to inhibit breathing or moisture vapor transmission.

## USE INSTRUCTIONS

- ◆ Request current (verify) product literature, labels and material safety data sheets from manufacturer in writing and read thoroughly before product use.
- ◆ Site environmental conditions, substrate conditions, and construction can have a major affect 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 field scale use is mandatory (irrespective of any other verbal or written representations) to verify product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.

ACRYL PEN

Stain & Seals



chemical solutions to concrete problems

- ◆ Depth of penetration varies with substrate density and porosity and typically ranges from 1/16 inch (2 mm) on low slump high density concrete to 1/4 inch (6 mm) on normal concrete and 1/2 inch (12 mm) or more on porous concrete.
- ◆ Typical application rate is 100-200 sf/gal. (2.5-5.0 sm/l).
- ◆ Usually tack free in less than 30 minutes at 68° F (20° C). Maximum resistance results after 72 hours at 68° F (20° C) 50% RH.

#### SURFACE PREPARATION

- ◆ Concrete surface to be treated must be a minimum of 28 days old and free from surface accumulation of dust, dirt, oil, debris, curing compounds, bondbreakers, sealers, rubber residue, paints and other compounds which would interfere with product penetration and bonding. Mechanical scrubbing is recommended.
- ◆ Surfaces evidencing laitance or efflorescence accumulation may require acid etching prior to application. Rinse thoroughly to remove any excess acid or reaction byproducts.
- ◆ Verify concrete ph is alkaline following acid etching.
- ◆ Check adequacy of surface preparation by applying product to dry test areas and verifying penetration and appearance.

#### APPLICATION

- ◆ Allow all surfaces to be sealed to dry a minimum of 48 hours. Substrate temperatures should be between 40° F and 90° F (5° C and 32° C).
- ◆ Mechanically mix Component "A" thoroughly. Avoid incorporating air.
- ◆ Combine component "A" component and component "B" and mechanically mix for an additional two (2) minutes.
- ◆ Apply using brushes, rollers, power rollers or low pressure coarse spray to the point of saturation and surface rejection. For more transparent coloration, apply thinly.
- ◆ Avoid surface film accumulations, runs or puddles. Promptly pick up excess material to avoid surface film accumulations, streaks or gloss.
- ◆ WORK TO CONTINUOUS WET EDGE ONLY, to avoid streaks on architectural surfaces. Best results are obtained if applied at low run angles. CAUTION: Excessive surface film accumulations can reduce natural substrate skid resistance and inhibit vapor transmission or breathing.
- ◆ Any non-slip additive used should be broadcast immediately after the second application and backrolled.
- ◆ Avoid foot traffic on treated areas for 24 hours and heavy traffic for 72 hours (longer with substrate temperatures below 68° F (20° C).
- ◆ Discard unused material from application equipment promptly following application and clean application

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equipment with suitable aromatic hydrocarbon solvent. If a sprayer is used, clean sprayer completely if sprayer is to be shut down for more than 20 minutes.

#### MAINTENANCE

- ◆ Regular sweeping and washing of treated surfaces with detergent solutions is recommended. DO NOT use steam or high pressure washing equipment.

### **TECHNICAL DATA**

Meets ASTM C 672 Freeze Thaw Rating - Deterioration .....	Zero
Meets NCHRP 244 Series II - Water Absorption .....	max. 18.9%
Meets NCHRP 244 Series II- Water Vapor Transmission.....	100%
Meets NCHRP 244 Series II - Chloride Ion Absorption .....	max. 9.0%
Meets NCHRP 244 Series IVS - Chloride Ion Screening - Accelerated Weathering .....	min. 99.1%
<b>Water Vapor Transmission - WVT</b>	
ASTM D-1653, Mthd. B, Cond. A . 3.9 grains/ft <sup>2</sup> /hr(65.8 grams/m <sup>2</sup> /24 hrs)	
<b>Water Vapor Permeance - WVP</b>	
ASTM D-1653, Mthd. B, Cond. A .....	9.8 Perms (6.5 Metric Perms)
<b>ACRYL PEN      ACRYL PEN LOW VOC</b>	
VOC, ASTM D-2369 .....	600 g/l ..... <400 g/l
Vapor Pressure.....	2 mmHg @ STP.....86.6 mmHg @ STP
Flash Point C.O.C.....	.85° F (29° C)..... <20° F (-7° C)

### **PACKAGING**

Product is packaged in 4.75 gal. (17.9 l) kits.

### **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).

### **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.

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