

# PRODUCT DATA

## TRI-SHIELD

Solvent-based, transparent, glossy, acrylic polymer and silane type combination membrane cure, water repellent sealer and decorative sealer for fresh, new or existing horizontal exterior concrete surfaces.

VOLATILE ORGANIC COMPOUND (VOC)  
REGULATORY COMPLIANCE

TRI-SHIELD - 100

TRI-SHIELD - 350

USEPA	OTC I	OTC II	AZ-MCAQMD	CARB - 2000	CARB - 2007	CARB-20/SCAQMD	CANADA
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### HOW IT WORKS

TRI-SHIELD combines a deep-penetrating silane and low molecular weight acrylic resin polymer to cure and seal concrete and to provide water repellency and stain protection all in one product.

### APPLICATIONS

- ◆ Use to cure, seal and provide water and chloride ion protection on new or existing rough or smooth finished concrete surfaces.
- ◆ Use as a cure on freshly placed concrete.
- ◆ Cure, seal, waterproof and protect horizontal concrete surfaces with only one product.
- ◆ Use on stamped concrete, patios, pool decks and driveways to protect against food, grease, oil and dirt staining.

### ADVANTAGES

- ◆ The first coat acts as a cure. The second coat, while not necessary, seals the surface and improves the overall look with a glossy finish.
- ◆ Protects concrete surfaces against the damaging effects of deicing salts, acid rain and staining.
- ◆ Minimizes spalling due to moisture absorption and freeze/thaw related damage.
- ◆ Prevents unsightly stains caused by absorption of dirt, oil and grease.
- ◆ Sealed surface makes contaminants easy to clean simply by wiping away or by using a mild detergent and scrub brush.
- ◆ Gives decorative surfaces like stamped concrete a "wet look" and enhances the natural colors.
- ◆ Dries rapidly and offers excellent re-coatability characteristics.
- ◆ Resists ultra-violet oxidation and yellowing.
- ◆ Offers excellent water vapor permeability and resistance to blistering.
- ◆ Remains sprayable in freezing temperatures.
- ◆ Complies with ASTM C309, Type 1, Class A & B. Also compliant with USDA requirements for incidental food contact.

### PRECAUTIONS

- ◆ Do not use on concrete slabs with inadequately drained subgrade, treated surfaces to be covered with concrete or plaster, and/or surfaces subject to hydrostatic water pressures.
- ◆ Coating delamination (blistering) may occur if applied prior to allowing all surface bleed water to fully evaporate. A moisture saturated subgrade or a moisture barrier placed beneath the slab to be cured and/or sealed may increase the risk of coating delamination.
- ◆ Do not use with other floor sealers, treatments, bondbreakers or adhesives without prior site test to determine compatibility and adhesion.
- ◆ Any variations in concrete surface density may be highlighted by surface mottling after product application. Make test application to determine performance and appearance acceptability.
- ◆ Do not use around sparks or open flame. Provide adequate ventilation.
- ◆ Due to the extremely low flash point TRI-SHIELD is only recommended for exterior applications and is NOT recommended for interior or enclosed applications.
- ◆ Do not apply where moisture could contact the underside of TRI-SHIELD.
- ◆ Treated surfaces may be slippery prior to drying and when wet with water or liquids after drying.
- ◆ Sealed surfaces will slowly oxidize in time, eventually necessitating reapplication.
- ◆ Not recommended for application to frozen concrete surfaces or when ambient temperatures are below 40° F (4° C) and/or are expected to drop below 40° F (4° C) within 12 hours following application.
- ◆ Do not apply TRI-SHIELD to concrete if substrate temperatures are below 40° F (4° C) or above 85° F (29° C). Best results are obtained when TRI-SHIELD is applied during the morning or evening hours and not in direct sunlight. Application of TRI-SHIELD in direct sunlight and under extremely hot and/or windy conditions can result in solvent bubbling or blistering.
- ◆ Avoid over-application. Apply one to two light coats. Over application may prohibit vapor transmission and lead to blistering and delamination of the sealer.
- ◆ May damage vegetation or painted surfaces with contact.
- ◆ Due to the more restrictive air quality regulations written by certain VOC management districts regulating the use of architectural coatings, this product may be prohibited from use as a concrete sealer, but still permissible for the use as a concrete curing compound.

Cures & Sealers

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## USE INSTRUCTIONS

- ◆ Request current product literature, labels and 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 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.
- ◆ Product can be applied with an airless sprayer, handpump tank sprayer, roller applicator or brush. Use a .017 or .019 spray tip for airless spray application. Use an 8006 LP spray nozzle for application with a hand pump, lower pressure sprayer. For roller application, use a roller applicator equipped with a 3/8 (10mm) nap cover.
- ◆ Do not thin or dilute.
- ◆ Application rates vary with substrate conditions. Approximate rate for curing is 250 sf / gal. (6.1 sm / L) per application. Approximate rate for sealing is 300 sf / gal. (7.4 sm / L) per application.

### For Freshly Placed Concrete

- ◆ Apply immediately following final finishing and after disappearance of surface water sheen.
- ◆ Apply to the point of saturation and appearance of continuous surface film.
- ◆ Concrete should be damp but not wet. Avoid over application, puddles or runs.
- ◆ For maximum sealing and dustproofing performance, apply a second coat after concrete has been allowed to thoroughly dry.

### For Previously Cured Concrete

- ◆ Clean and remove all dirt, oil, grease, paint or foreign cure residue from the surface with a trisodium phosphate (TSP) solution.
- ◆ Rinse surface thoroughly with clean water and squeegee off excess.
- ◆ Allow surface to dry 24-48 hours prior to first application.
- ◆ Apply first coat to the point of saturation and appearance of continuous surface film.
- ◆ If a second coat is necessary, apply 24 hours after first application.

## MAINTENANCE

- ◆ Wipe up all chemical, solvent or petroleum spills as soon as possible.
- ◆ Remove dirt and debris by sweeping.
- ◆ Wash and buff periodically to help maintain surface luster.
- ◆ Clean damaged coating areas promptly and recoat.

## TECHNICAL DATA

	Tri-Shield - 100	Tri-Shield - 350
<b>Bulk Density</b>	10.8 lbs / gal. (1290 g/L)	9.38 lbs / gal. (1124 g/L)
<b>Color</b>	Amber	Amber
<b>Odor</b>	Sweet	Sweet
<b>Flash Point</b>	>109°F (>42°C)	>62°F (>17°C)
<b>Freeze Point</b>	-40° F (>-40° C)	-40° F (>-40° C)
<b>VOC</b>	<100 g / L	<350 g / L
<b>VOC Classification</b>	Concrete/Masonry Sealers	Reactive Penetrating Sealer, Waterproofing Sealer Concrete & Masonry Low Solids

Complies with ASTM C 309, Type 1, Class A & B; and AASHTO M-148, Type 1, Class B. Compliant with USDA requirements for incidental food contact.

## PACKAGING

Product is packaged in 5 gal (19 L) and 20 liter pails.

## SHELF LIFE

Shelf life is two years. 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 INC. maintains regional offices and distribution centers in principal markets throughout the world. For source or technical information, call 800-669-2738 or 402-341-2080.

## 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 WITH RESPECT 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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Updated 03/14/25. This version replaces all previous versions.

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