



# TK-TRI-SILANE 590-40 VOC

## Deep Penetrating Water Repellent

Item No. TK-590-40 VOC

### PRODUCT DESCRIPTION

TK-TRI-SILANE 590-40 VOC is a 40% active, one-component, deep penetrating silane water repellent for concrete and masonry. Through the process of hydrolysis, TK-TRI-SILANE 590-40 VOC chemically bonds with the surface to form a protective barrier that is far superior to traditional penetrating water repellents.

#### Features:

- Forms a chemical, and permanent, bond with the substrate to provide ultimate protection against damage due to water and deicing chemical intrusion, acid rain, freeze/thaw exposure, airborne dirt, smog, industrial fumes and most other atmospheric chemicals.
- Penetrates up to 1/4" and eliminates surface moisture which can lead to spalling, freeze damage and rebar corrosion.
- Outperforms typical water repellents which can only bond physically with the surface and thus provide marginal protection.
- The coating is colorless, non-staining and non-yellowing.

#### USES:

Suitable for vertical or horizontal use on exterior above-grade concrete, burnish block, CMU, single wythe, masonry or cementitious surfaces. Applications include parking structures, bridge decks, precast concrete, burnish block, split face block, stucco and poured concrete walls.

### APPLICATION PROCEDURES:

#### PREPARATION:

Before using this product, read the Safety Data Sheet for complete safety information.

All surfaces to be treated must be clean and structurally sound. Thoroughly clean surfaces to remove all grease, oils, form oils or other contaminants. Best results are obtained by applying TK-TRI-SILANE 590-40 VOC to dry surfaces. It is recommended that surface temperatures be 40°F or above at the time of application to ensure that surfaces are frost-free.

*Existing Concrete preparation* - Unsound concrete should be removed and cracks or deteriorated areas repaired prior to application. Surfaces may need to be mechanically abraded to achieve maximum penetration.

*New Concrete preparation* - Water cure fresh concrete and as a standard procedure, allow to thoroughly cure (typically 14-28 days) before applying this product.

**A test patch should always be performed to determine proper results and coverage rates prior to application.**

#### MIXING:

The material is ready for use and requires no mixing. Do not dilute.

#### APPLICATION:

Apply by roller, brush or industrial spray equipment in a uniform manner and in sufficient quantity to completely wet out the substrate. Ensure complete coverage and saturation by maintaining surface moisture briefly.

*Horizontal Surface application* - Apply at a rate to sufficiently saturate the concrete and create a 6-8" rundown. Do not allow the product to pond on the surface. Any puddles should be broomed out.

*Vertical Surface application* - Apply a light spray to break the surface tension of the wall and follow immediately with a flood coat. Saturate sufficiently enough to create a 2-4" rundown. Fully saturate all mortar joints.

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### TECHNICAL DATA

Composition and Materials:	100% reactive alkylalkoxy silane
% Actives:	40%
Flash Point:	-4°F
Dry Time (70°F)*:	Tack Free: 1 hour Recoat: 24 hours Full Cure: 72 hours - 1 week
VOC Content:	< 400 g/l
A.I.M. Category:	Waterproofing Sealers, Concrete/Masonry Maximum VOC 400 g/l

\*Colder temperatures and high humidity rates will extend dry times

### APPLICABLE STANDARDS

- ASTM 672-98: Scaling Resistance to Deicing Chemicals
- ASTM 642-75: Water Absorption
- AASHTO T-259/260: Chloride Penetration
- NCHRP #244, Series II & IV: Chloride Ion Intrusion

### TYPICAL PROPERTIES

TK-590-40 is characterized by the following properties:

- Excellent penetration
- High alkali resistance and suitability for either alkaline or neutral substrates
- Low volatility
- Dries tack free
- Provides early water repellency
- Exhibits droplet effect
- Will not etch glass

**CLEAN UP:**

Clean tools, equipment and spills with TK-00 XYLENE\*.

**COVERAGE:**

Typical coverage rate is 100-200 square feet per gallon for most surfaces. Very porous surfaces may require a second coat. Coverage rates are provided as a guideline only. Many factors including surface texture, porosity and weather conditions will determine actual coverage rates.

**MAINTENANCE:**

If wear patterns occur, TK-TRI-SILANE 590-40 VOC may be reapplied to affected areas.

**LIMITATIONS:**

- Do not use below-grade or under hydrostatic pressure.
- The typical usable temperature of this product is 20°F to 90°F. Minimum cure temperature is 35°F.
- Do not apply if rain or inclement weather are expected within 4-6 hours of application.
- Only apply to structurally sound surfaces as this product will not prevent water penetration fully if applied to unsound or cracked surfaces.
- Use with adequate ventilation.

**FIRST AID:**

- Consult this product's safety data sheet for additional health and safety information. Safety Data Sheets are available through TK distributors, the TK office and the TK website.

**AVAILABILITY:**

TK-TRI-SILANE 590-40 VOC is available through TK Distributors. Contact TK Products for the nearest distributor. Packaged in 55-gallon drums, 5-gallon pails and 1-gallon cans.

FOR PROFESSIONAL USE ONLY

**NOTES:**

\*TK-00 XYLENE must be purchased separately

04/15 Last Rev. 12/14

**CONDITIONS OF SALE/ LIMITED WARRANTY**

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