



## TK-TRI-SILANE 590-90

### Deep Penetrating Water Repellent

Item No. TK-590-90

#### PRODUCT DESCRIPTION

TK-590-90 is a clear, one-component, high performance, deep penetrating silane water repellent for concrete and masonry. Through the process of hydrolysis, TK-590-90 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.
- Deep penetrating up to 1/2" to eliminate 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 new or existing above-grade surfaces. Use to protect any concrete, burnish block, CMU, single wythe, masonry or cementitious surface. Ideal applications include parking decks, bridge decks, ramps and barriers, concrete highways and commercial, warehousing and stadium floors.

#### 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-590-90 to dry surfaces. It is recommended that surface temperatures be 35°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. Dirt and dust should be removed from surfaces with compressed air. Although additional cleaning is not required for the proper performance of the sealer, any further cleaning should be completed and allowed to completely dry before application.

**New Concrete preparation** - Water cure fresh concrete. As a standard procedure, allow new concrete to thoroughly cure (usually between 14-28 days) following placement before applying this product.

#### TECHNICAL DATA

% Actives:	Proprietary						
Flash Point:	102°F						
Drying Time:	<table> <tr> <td>Tack Free</td><td>30-60 minutes</td></tr> <tr> <td>Recoat</td><td>24 hours</td></tr> <tr> <td>Full Cure</td><td>72 hours - 1 week</td></tr> </table>	Tack Free	30-60 minutes	Recoat	24 hours	Full Cure	72 hours - 1 week
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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						

#### APPLICABLE STANDARDS

- ASTM 672-76: Freeze/Thaw Cycle
- 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
- Oklahoma DOT OHD L-40: Surface Penetration

#### TYPICAL PROPERTIES

TK-590-90 is characterized by the following properties:

- Excellent penetration
- High alkali resistance and suitability for either alkaline or neutral substrates
- Provides resistance against traffic abrasion
- Low volatility
- Dries tack free
- Provides early water repellency while allowing interior moisture to escape without damaging the sealer
- Exhibits droplet effect
- Will not etch glass

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 or dilution. It is unlawful to further dilute with non-exempt solvents.

#### APPLICATION:

Apply by roller, brush or industrial spray. Ensure complete coverage and saturation by maintaining surface moisture briefly. Any puddles should be broomed out. When applying to vertical surfaces, apply a light spray to break the surface tension of the wall and follow immediately with a flood coat. Apply horizontally with plenty of overlap and enough material to fully saturate the surface and all mortar joints.

**CLEAN UP:**

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

**COVERAGE:**

Surface	Coverage
Most Concrete/Masonry Surfaces	250-400 square feet/gallon
Resealing Bridge Decks	250-400 square feet/gallon

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 590-90 may be reapplied to affected areas.

**LIMITATIONS:**

- Do not use below-grade or under hydrostatic pressure.
- Do not apply if wet or inclement weather are anticipated within 4 hours application.
- Only apply to structurally sound surfaces as this product will not prevent water penetration fully when applied to cracked or unsound surfaces.
- Cover adjacent surfaces with a drop cloth or tarp to prevent damage.
- The typical usable temperature range of this product is 20°F-90°F.
- Use with adequate ventilation.
- Not suitable for use on gypsum.

**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 590-90 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

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