



PRODUCTS

Division of Sierra Corporation

Meets Federal EPA, OTC, and LADCO Requirements

TK-290 WB

Technical Data

1. PRODUCT NAME

TK-290 WB
(TK-290 Water Based Tri-Siloxane)

2. MANUFACTURER

TK PRODUCTS, DIVISION
OF SIERRA CORPORATION
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Minnetonka, MN 55343
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3. PRODUCT DESCRIPTION

TK-290 WB is a water borne silane/siloxane concrete and masonry water repellent, which achieves maximum hydrolysis under the influence of atmosphere moisture and polymerizes to a polysiloxane, which is tack free and hydrophobic in nature. Through this reaction, the siloxane groups are chemically bonded to the concrete, which eliminates the ever present moisture that had previously engulfed the cementitious surface, thus eliminating spalling, freeze damage, and rebar corrosion.

Therefore TK-290 WB is chemically bonded within the substrate, not just physically bonded like other surface penetrating sealers.

This formulation is ready-to-use, colorless, breathable, non-staining, non-yellowing, deep penetrating, concrete and masonry water repellent.

Basic Uses:

TK-290 WB can be used to protect and seal any clean and dry cementitious surface, above ground vertical and horizontal. It protects the surface against damaging effects of water intrusion, acid rain, deicing chemicals, freeze/thaw exposure air-borne dirt, smog, industrial fumes, and most other atmospheric chemicals.

Applications Include:

- A. Parking structures
 - B. Bridge decks
 - C. Commercial buildings & warehouses
 - D. Precast concrete
 - E. Piers and Pilings
 - F. Poured Concrete Walls
 - G. Burnish block
 - H. Split face block
 - I. Stucco
 - J. Poured concrete walls
 - K. Concrete Columns
 - L. Clay Brick
- TK-290 WB is not suitable for use on gypsum.

Typical Properties:

TK-290 WB has been carefully designed for use on above grade exterior surfaces and is characterized by the following properties:

- Excellent penetration.
- Good stability on highly alkaline surfaces for long term durability.
- Low volatility.
- Use only on dry surfaces.
- Dries tack free.
- Exhibits droplet effect when fully cured.
- Suitable for alkaline & neutral substrates.
- Formulated to minimize darkening effects thus not changing substrate appearances.
- TK-290 WB is UV stable and resistant to biological degradation for longer service life leading to less cost for repetitive applications.
- TK-290 WB can improve adhesion of paints to mineral substances thus priming them for painting.

Limitations:

Keep from freezing. TK-290 WB should not be used below grade, or under hydrostatic pressure. A test patch should always be applied to determine compatibility with substrate and application coverage

rate. Do not apply if rain is expected within 4-6 hours of application. Application to inappropriate or non-compatible substrates may affect adhesion of subsequent coatings.

4. TECHNICAL DATA

- Density 7.9 lbs./gal
- Flash Point >200° F.
- Solids: 10% and 20%
- Passes: NCHRP 244 for:
 - Water absorption
 - % Water vapor transmission
 - % Reduction in chloride intrusion
- ASTM C-666 Relative dynamic modules of elasticity
- ASTM C-672 Scaling resistance 75 cycle is a +0 rating
- ASTM E-514 Water repellency under "wind driven rain"
- AASHTO T-259 & T-260 Test Results given upon request.
- A.I.M. Category- Low Solids coating, Material VOC 120 g/l maximum.
- A.I.M. Definition: A coating formulated and recommended for application to a porous substrate for the primary purpose of preventing the penetration of water.

5. APPLICATION PROCEDURES AND INSTRUCTIONS

Surface Preparations:

All surfaces to be treated must be clean and structurally sound. Clean surfaces to thoroughly remove all grease, oil, form oils or other contaminants.

Old Concrete: Remove unsound concrete and repair deteriorated areas and cracks. Surfaces may need to be mechanically abraded to get maximum penetration.

New Concrete: Water cure fresh concrete or use TK-2519 DC WB a dissipating curing compound. As a standard procedure fresh concrete should be allowed to dry for 28 days before applying TK-290 WB. It can be applied sooner if need, call your



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TK Products Representative.

Best results are obtained by applying TK-290 WB on dry porous substrates. A test patch should be applied to determine proper results and coverage rates.

Application:

TK-290 WB should be used as packaged, no diluting in anyway. To insure surface is frost free, it is recommended that the substrate surface temperature be 40° F. or above. Application can be by roller or spray equipment. Apply TK-290 WB to the surface in a uniform manner in sufficient quantity to completely wet out the substrate with a minimum of 2 inch run down. On decorative block and other substrates where darkening of the substrate is undesirable saturate the substrate with no run down.

Horizontal Concrete - saturate the surface.

Coverage Rate*:

TK-290 WB

Surface Type	SF/G
Bridge Decks/Ramps	100-200
Smooth Concrete	150-250
Older Bridges or Resealing	
Bridge Decks/ Ramps	150-250
Exposed Aggregate	100-200
Concrete Block	50-100

* Coverage rates are provided as a guideline only. The texture and absorption characteristics of the surface will determine actual coverage rates.

Clean Up:

Clean up tools with clear water.

Precautions:

TK-290 WB will react with water vapor. To insure maximum effectiveness, keep containers tightly sealed when not in use. DO NOT use or store near heat or open flames. All safety precautions must be adhered to at all times. Wear protective goggles, gloves and respirators.

Maintenance:

Minimal maintenance is required other than normal sweeping, dusting, or mopping. If wear patterns do occur, or spillage removes the coating, TK-290 WB can be reapplied to the affected area.

First Aid:

Inhalation: Remove person to fresh air, give artificial respiration if not breathing. GET MEDICAL HELP. **Eye and Skin Contact:** Wash with large quantities of clean water for 15 minutes. **Ingestion:** Do not induce vomiting. GET MEDICAL HELP.

6. AVAILABILITY

TK-290 WB is available through TK Distributors. Contact TK PRODUCTS for nearest distributor. Packaged in: 55 gallon drums, 5 gallon pails, one gallon cans.

7. LIMITED WARRANTY

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8. TECHNICAL SERVICES

The TK office offers assistance with specifications, performance test data and field services.

9. FILING SYSTEMS

Information Handling Services
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Oak Park, MI 48237

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