



PRODUCTS

Division of Sierra Corporation

TK-290BDS TRI-SILOXANE OTC

Meets Federal EPA, OTC, and LADCO Requirements

Technical Data

1. PRODUCT NAME

TK-290BDS TRI-SILOXANE OTC

2. MANUFACTURER

TK PRODUCTS, DIVISION
OF SIERRA CORPORATION
11400 West 47th Street
Minnetonka, MN 55343
952-938-7223
952-938-8084 (FAX)
e-mail: tkproduct@aol.com
Website: http://www.tkproduct.com

3. PRODUCT DESCRIPTION

TK-290BDS TRI-SILOXANE OTC is a low viscosity oligomeric organosiloxane 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-290BDS TRI-SILOXANE OTC 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-290BDS TRI-SILOXANE OTC 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, airborne dirt, smog, industrial fumes, and most other atmospheric chemicals.

Applications Include:

- A. Parking structures
 - B. Bridge decks
 - C. Commercial buildings and warehouses
 - D. Precast concrete
 - E. Burnish block
 - F. Split face block
 - G. Stucco
 - H. Poured concrete walls
 - I. Concrete Columns
- TK-290BDS TRI-SILOXANE OTC is not suitable for use on gypsum.

Typical Properties:

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

- Excellent penetration.
- High alkali resistance.
- Low volatility.
- Use only on dry surfaces.
- Dries tack free.
- Provides early water repellency.
- Exhibits droplet effect.
- Suitable for alkaline & neutral substrates.

Limitations:

TK-290BDS TRI-SILOXANE OTC 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

- TK-290BDS TRI-SILOXANE OTC
- Material VOC: < 120 g/l
- Flash Point: -4⁰ F.
- 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
- Test Results given upon request.
-A.I.M. Category: Low solids coating - maximum VOC 120 g/l.
A.I.M. Definition: A coating containing 0.12 kg or less of solids per liter (one pound or less solids per gallon) of coating material.

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-290BDS TRI-SILOXANE OTC. TK-290BDS OTC may be applied sooner than 28 days, surface dryness will determine the dept of penetration and we are looking for at least 1/8" to achieve effective performance.

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

Application:

TK-290BDS TRI-SILOXANE OTC should be used as packed, no diluting in anyway. To insure surface is frost free, it is recommended that the substrate surface temperature be 40° F. or above. TK-290BDS OTC can be



PRODUCTS
7 & 9

TK-290BDS TRI-SILOXANE OTC
Concrete & Masonry Water Repellent

TK-290BDS TRI-SILOXANE OTC
Concrete & Masonry Water Repellent

PRODUCTS
7 & 9



applied at colder temperatures. The substrate must be dry to allow penetration. Application can be by roller or spray equipment.

Apply TK-290BDS TRI-SILOXANE OTC to the surface in a uniform manner in sufficient quantity to completely wet out the substrate.

Waterproofing split face block. The block needs to be dry to allow for good penetration into the block to properly wet out the block with no rundown. TK-290BDS OTC has its own catalyst so if the block is damp, but surface dry, the material cannot penetrate and it will react on the surface giving a wet look instead of a natural look.

Coverage Rate*:

TK-290BDS OTC

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 TK-00 solvent or xylene.

Precautions:

TK-290BDS TRI-SILOXANE OTC 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. **FLAMMABLE. EXTERIOR USE ONLY.** All safety precautions must be adhered to at all times. Only apply in well ventilated areas, no smoking, turn off all pilot lights, do not generate a spark with solvent fumes present. 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-290BDS TRI-SILOXANE OTC 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.** Use with adequate ventilation.

6. AVAILABILITY

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

7. LIMITED WARRANTY

TK Products, a division of The Sierra Corporation, warrants that its products conform to their label descriptions, are free from manufacturing defects, and are fit for the ordinary purposes for which such goods are used. Inasmuch as the use of its products by others and other factors affecting product performance are beyond TK Products' control, TK Products does not guarantee the results to be obtained. SHOULD ANY OF ITS PRODUCTS FAIL TO GIVE SATISFACTORY RESULTS, TK PRODUCTS WILL REPLACE THE PRODUCTS OR, AT ITS OPTION, REFUND THE PURCHASE PRICE. THIS IS THE SOLE AND EXCLUSIVE REMEDY FOR ANY FAILURE OF THE PRODUCTS OF TK PRODUCTS TO PERFORM AS WARRANTED AND SHALL ALSO CONSTITUTE LIQUIDATED DAMAGES IN CASE OF LOSS. UNDER NO CIRCUMSTANCES SHALL THE BUYER BE ENTITLED TO ANY OTHER REMEDY OR DAMAGES. REMEDIES FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED. TK Products does not authorize any person to assume for it any other liability in connection with the sale or use of its products unless specifically authorized by TK Products in writing. See also TK PRODUCTS DISCLAIMER section below.

8. TECHNICAL SERVICES

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

9. FILING SYSTEMS

Information Handling Services
PO BOX 1213
Englewood, CO 80150
Information Marketing Services
13271 Northend
Oak Park, MI 48237

TK DISCLAIMER:

Every effort has been made to ensure the accuracy of the above information and to avoid infringement of any patent or copyright. The information is based on field tests by government and private agencies, as well as lab tests, and on technical data from raw material manufacturers. The person(s) specifying or requesting the use of these products is responsible for assuring their suitability for a specific use, as well as the proper application of the products. Where there is any question as to the suitability of a particular product, a small test patch is recommended. See also LIMITED WARRANTY (Section 7) above.

FOR INDUSTRIAL USE ONLY