



TECHNICAL DATA SHEET

BARCADE® SILANE 40

Silane Based Water Repellent

WATER REPELLENTS
THERMAL AND MOISTURE PROTECTION
07190

1. **DESCRIPTION:** BARCADE SILANE 40 is a breathable, ready-to-use, colorless, nonstaining, non yellowing, deep penetrating concrete and masonry water repellent compound. BARCADE SILANE 40 has an alkylalkoxysilane concentration of 40%. It protects concrete, block, stone and brick against the damaging effects of water intrusion, deicing chemicals, freeze-thaw exposure and airborne contaminants such as acid rain, smog and industrial fumes. BARCADE SILANE protects without altering the appearance or texture of the treated surface. BARCADE SILANE produces a non filming water repellent surface while penetrating deep into the capillaries of the subsurface. Chemical reactions within the capillaries form long lasting water repellent groups that crosslink into a silicone compound.

2. **USES:** BARCADE SILANE 40 is formulated to protect above grade concrete wearing surfaces including precast, prestressed, poured-in-place, exposed aggregate, lightweight and air entrained concrete. Applications include sidewalks, ramps, parking decks, bridge decks and industrial floors.

3. **COMPOSITION AND MATERIAL:** BARCADE SILANE is a complete solution of alkylalkoxysilane in a special blend of clear petroleum distillates. This mix produces a stable, easily applied, water repellent, alkali resistant polysilane compound.

4. **COMPLIANCE:** BARCADE SILANE 40 meets requirements of NCHRP 244. VOC level is <600 grams/liter which complies with federal AIM VOC emissions standards.

TAMMS INDUSTRIES
MARCH 2002 (Replaces 1/01)

Material Properties @ 75° F (25°C)		
BARCADE SILANE 40		
Flash point - min		105°F (41°C)
Actives Content - min		40%
Weight per gallon		6.88 lbs/gal
Resistance to UV		Excellent
Abrasion Resistance		Excellent
Depth of Penetration (substrate dependent)		3/8"
BARCADE SILANE 40 TEST RESULTS		
NCHRP 244 SERIES I TESTS		
	<u>Minimum Requirement</u>	<u>BARCADE SILANE 40</u>
Reduction in Water Absorption	75%	87.6%
Water Vapor Transmission	100%	131.7%
Reduction in Chloride Intrusion	75%	85.3%
NCHRP 244 SERIES IV TESTS		
Northern Climate		97.6%
Southern Climate		97.6%
ASTM C666		
Freeze Thaw Durability		93.5%
ASTM C672		
Scaling Resistance		0
100 cycles		"no scaling"
Values presented are typical and are not necessarily referenced to create specifications.		

5. **SURFACE PREPARATION:** Cure new concrete 28 days before application. Surface must be clean, dry and structurally sound. The substrate must also be free of all curing compounds, form release agents and any other contaminants which may prevent the proper penetration of BARCADE SILANE. Prior to application, joints or cracks in movement must be properly sealed with an elastomeric joint sealant. Surfaces must be dry for a minimum of 24 hours prior to application. Mask all adjacent surfaces including grass, plants, shrubs and asphalt to protect from drips or over spray. For surfaces that have had prior coatings or surface treatments, contact Tamms Technical Service prior to application.

TAMMS INDUSTRIES
MARCH 2002 (Replaces 1/01)

WATER REPELLENTS
THERMAL AND MOISTURE PROTECTION
07190

6. **APPLICATION TECHNIQUES:** BARACADE SILANE should be applied using airless spray equipment. A garden sprayer may be used for smaller projects only when an airless sprayer is not available. **Do not use pressure pot or lacquer type paint sprayers.** To produce the proper material flow, reduce air pressure on pumping equipment and use spray tips with orifice sizes no smaller than 0.035 inches. Larger tips may be required with some spray equipment to get desired material flow. Flood the surface with BARACADE SILANE 40 using a low pressure sprayer, roller or broom. Distribute material evenly. After the surface absorbs the BARACADE SILANE, apply a second coat before the surface dries. Do not allow the material to puddle.

7. **CAUTIONS:** Do not dilute. Do not apply to a frost filled surface or when the temperature is below 40°F. Do not apply if rain is expected within 12 hours. Do not apply to non-absorbent surfaces such as glass, metal, glazed brick or tile. Use in a well ventilated area.

8. **COVERAGE:** Because of variations in surface density, the following coverage rates are approximate and are intended for estimating purposes only. Use test applications on actual surfaces to accurately determine coverage rates. Extremely porous surfaces may require 2 coats of BARACADE SILANE.

Square Feet per gallon per coat

<u>Surface Type</u>	<u>BARACADE SILANE 40</u>
Smooth Concrete	150-250
Exposed Aggregate	100-200
Bridge deck/Ramps/Driveways	100-150

9. **CLEAN-UP INSTRUCTIONS:** Clean tools and equipment with mineral spirits or similar solvent immediately following use. Clean drips and over spray with mineral spirits while still wet. Clean glass and other non absorbent materials soon after application.

10. **ENVIRONMENTAL AND SAFETY PRECAUTIONS: Industrial Use Only.** BARACADE SILANE contains hydrocarbon or alcohol solvents. Avoid fire, open flame and sparks. Avoid breathing vapors or mist. BARACADE SILANE is irritating to eyes and skin. Avoid splashing into eyes and prolonged contact with skin. In case of eye contact, flood eyes repeatedly and call a physician immediately. **DO NOT RUB EYES.** Wash hands with soap and clean water immediately after use and before eating or smoking. Protect shrubbery, plants and grass during application. Protect asphalt and rubber surfaces from spills and over spray. **KEEP AWAY FROM CHILDREN AND ANIMALS.** Consult Material Safety Data Sheet for complete product safety information. EMERGENCY RESPONSE PHONE NUMBERS ARE (800) 862-2667 TAMMS OR (800) 424-9300 CHEMTREC.

11. **PACKAGING:** 5 gallon and 55 gallon steel DOT approved containers. Store at temperatures between 40°F and 90°F (4.4°C-32.2°C). Shelf life is one year in proper storage. Freight class is 55. BARACADE SILANE 40 IS NOT A RED LABEL MATERIAL IN THE UNITED STATES. BARACADE SILANE IS A RED LABEL PRODUCT IN CANADA.

12. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES
3835 State Route 72, Kirkland, IL 60146
800-862-2667 FAX: 815-522-2323
www.tamms.com

WARRANTIES: Seller warrants that the Products do not infringe upon any copyright, patent, or trademark or trade secret, nor violate the proprietary information rights of any third party. Seller warrants that its Products will conform to and perform in accordance with the Products' specifications. **THE FOREGOING WARRANTIES, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. LIMITATION ON LIABILITIES:** Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury. Seller's liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of Product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the Product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**