

# FOX FIRE

CLEANERS + SEALERS + CORROSION CONTROL

## SB-40™

### SOLVENT-BASED, 0-VOC, 40% SILANE PENETRATING WATER REPELLENT FOR CONCRETE AND MASONRY

- The only commercially available, 0-VOC (Volatile Organic Compound) solvent-based, 40% silane repellent
- Environmentally friendly compared to conventional solvent-based silanes
- Greatly reduces moisture, chloride and airborne contaminant intrusion into concrete and masonry substrates.
- Offers a high-degree of protection against rebar corrosion, freeze-thaw damage and alkali attack.
- Penetrating treatment will not change appearance of substrate or change the surface profile.
- Mildew and Fungus Resistant.
- Non film-forming. 100% water-vapor permeable.

**DESCRIPTION:** Foxfire SB-40™ Repellent is a single-component, penetrating solvent-based 40% silane water repellent designed for use on most above-grade concrete and masonry substrates. Foxfire SB-40™ is unlike conventional solvent-based 40% silane repellents, which traditionally contain high-levels of VOCs (Volatile Organic Compounds). Foxfire SB-40™ is the only commercially available, 0-VOC repellent of its kind and exceeds all federal VOC regulations. Foxfire SB-40 also exceeds all performance standards of AASHTO-T-259/260 and NCHRP Report 244 –Series II.

**PRIMARY APPLICATIONS:** Foxfire SB-40™ is suitable for use on new, aged and green concrete as well as on brick and masonry. Typical uses include but are not limited to: Parking Decks, bridge decks, sidewalks, ramps, parking lots, building facades, driveways, highway barriers, parapets, precast concrete structures, seawalls, retaining walls, and more.

**SAFETY PRECAUTIONS: Signal Word-Warning:** Flammable liquid and vapor; causes skin irritation; causes serious eye irritation; may cause respiratory irritation, harmful if inhaled. Use eye protection; minimize skin contact by wearing gloves and protective clothing. Use NIOSH cartridge mask, and only apply in areas with adequate ventilation that are completely free from any source of ignition.



**APPLICATION PRECAUTIONS:** New concrete must be allowed to cure for at least 28 days prior to application of Foxfire SB-40™.

Application temperature range: 40-90° F. Prior to full-scale application, we recommend performing test patterns to determine substrate compatibility and performance. All surfaces must be clean, sound, dry and completely free of efflorescence, laitance, dirt, oil, grease or any other coatings that may inhibit the penetration and performance of the repellent. Do not apply in extreme heat or in freezing temperatures. Do not apply if rain is expected within 24 hours of application. Protect vehicles, glass surfaces, plant life, aluminum, ceramics, glazed tile and wood from overspray. Remove overspray with water immediately.

**HORIZONTAL SURFACE APPLICATION:** Using a low-pressure sprayer (40 psi) with a fan-type nozzle, apply first coat of repellent in an overlapping pattern, to refusal. Approximately 5-10 minutes later, apply a second, wet-on-wet coat of repellent in an overlapping pattern, again to refusal. Areas that absorb sealer at faster rate may require additional coats. Avoid over-application or ponding. Brush, broom or mop any ponded material to more absorbent areas. Substrates treated with Foxfire SB-40™ Repellent must be allowed to cure for at least 24 hours before being exposed to any moisture.

**VERTICAL SURFACE APPLICATION:** Apply from top down using a low-pressure sprayer (40 psi) with a fan-type nozzle. Flood surface in an overlapping spray pattern until excess runs down 6 to 8 inches below spray pattern. Approximately 5-10 minutes later, apply a second, wet-on-wet coat of sealer in an overlapping pattern. Apply only as much material as the surface will readily absorb. Areas that absorb sealer at faster rate may require additional coats.

**FOR MAXIMUM PROTECTION:** When the highest-degree of protection is required, Foxfire SB-40™ Repellent can be applied over substrates that have been treated with our Matrix Pro®

penetrating crystalline treatment. Apply Foxfire SB-40™ Repellent 48-72 hours after the last application of Foxfire Matrix Pro™. Follow the same application guidelines as when using Foxfire SB-40™ as a standalone repellent.

**DRY TIME:** Dry to touch in 4 to 6 hours depending upon temperature and humidity.

**CLEAN UP:** Rinse equipment with cold water. Dispose of empty containers appropriately according to regulations.

**COVERAGE:** Coverage rate is intended for estimating purposes only. Test patterns should be performed to determine best approach and estimated coverage.

Cured concrete and masonry: 150 - 250 sq. ft. /gal  
Cured concrete: Rough Slab Finish: 50 – 150 sq ft/gal  
Cured concrete: dense and smooth finish: 150 – 250 sq ft/gal

\*Different concrete and masonry composites may require different system approaches. Contact Foxfire for further information.

**PACKAGING:** 55-gal (208 L) drums and in 5 gal (18.9 L) pails.

**TRANSPORTATION:** DOT REGULATED. UN1993, flammable liquids, N.O.S. 3, PGIII (Hexamethylsiloxane). See SDS for details.

**STANDALONE PERFORMANCE:** Test results were obtained under controlled laboratory conditions. Field conditions may cause variations in performance.

**ASTM C642-13:** Standard Test Method for Density, Absorption, and Voids in Hardened Concrete Section 7 = Water Absorption Reduction >95%.

**ASTM C672-12:** Standard Test Method for Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals Section 10 = Efflorescence Scale Rating 0 (100 Freeze Thaw Cycles).

**ASTM C666-15:** Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing = No Scaling

**ASTM C666-15:** Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing = Salt Resistance (Passes).

**AASHTO-T-259/T260:** Chloride Ion Analysis (90 days)  
Chloride Ion Content @ 1/16"-1/2" = 0.30lb/yd<sup>3</sup>  
Chloride Ion Content @ 1/2"- 1" = 0.11lb/ yd<sup>3</sup>

**NCHRP 244 Series II:** National Cooperative Highway Research Program Series II-Water weight gain percent reduction= 95%.

**NCHRP 244 Series II:** National Cooperative Highway Research Program Series II = Chloride Ion Penetration Reduction 98%.

**NCHRP 244 Series IV:** National Cooperative Highway Research Program Series II = Chloride Ion Penetration Reduction 101% @24 weeks plus 42-day cure time.

**EPA Method 24:** Volatile Organic Compound = (VOC) Content 0 g/L

**COMBINATION PERFORMANCE:** Application of Foxfire Matrix Pro® penetrating treatment to fully cured concrete at 150 ft<sup>2</sup>/gal followed 48-72 hours later by application of Foxfire SB-40™ silane at 150 ft<sup>2</sup>/gal. Test results were obtained under controlled laboratory conditions. Field conditions may cause variations in performance.

**ASTM C642-13:** Standard Test Method for Density, Absorption, and Voids in Hardened Concrete Section 7 = Water Absorption Reduction >98%. 48-hr immersion= 0.15%, 28-day immersion= 0.80%

**ASTM C672-12:** Standard Test Method for Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals Section 10 = Efflorescence Scale Rating 0 (100 Freeze Thaw Cycles)

**ASTM C666-15:** Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing = No Scaling

**ASTM C666-15:** Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing = Salt Resistance (Passes)

**AASHTO-T-259/T260:** Chloride Ion Analysis (90 days) =  
Chloride Ion Content @ 1/16"-1/2" = 0.21lb/yd<sup>3</sup>  
Chloride Ion Content @ 1/2"- 1" = 0.08lb/ yd<sup>3</sup>

**NCHRP 244 Series II:** National Cooperative Highway Research Program Series II-Water weight gain percent reduction= 98%

**NCHRP 244 Series II:** National Cooperative Highway Research Program Series II = Chloride Ion Penetration Reduction 99%

**NCHRP 244 Series IV:** National Cooperative Highway Research Program Series II = Chloride Ion Penetration Reduction 103% @24 weeks plus 42-day cure time.

**OHD-L-35:** Moisture-Vapor Transmission Rate=101%

**EPA Method 24:** Volatile Organic Compound (VOC) Content= 0 g/L.\* \*Foxfire Matrix Pro® and Foxfire SB-40™ are both 0-VOC products.

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