

## VOLATILE ORGANIC COMPOUND (VOC) REGULATORY COMPLIANCE

### STIFEL 40

Solvent-based, transparent, breathable silane sealer penetrates deep and chemically reacts with concrete to create a long-lasting water-repellent surface.

	USEPA	OTC I	OTC II	AZ-MCAQMD	CARB - 2000	CARB - 2007	CARB-20/SCAQMD	CANADA
STIFEL 40 - 350	■	■	■	■	□	□	□	■
STIFEL 40 - 600	■	□	□	□	□	□	□	□

### HOW IT WORKS

Ready-to-use formula penetrates deep into concrete and masonry where it chemically reacts with siliceous materials to form a hydrophobic barrier to prevent the absorption of water and waterborne chloride ions. STIFEL 40 has a small molecular structure allowing it to move through concrete pores and penetrate deep, up to 1/2 inch or more.

### APPLICATIONS

- ◆ Use on concrete parking garages, driveways, parking lots, sidewalks, bridge decks, pool decks, patios, vertical concrete, masonry and more.
- ◆ Protects reinforcing steel in concrete from corrosion due to the effects of water, deicing salts and other water borne chemicals.
- ◆ Suitable for use on smooth concrete or exposed aggregate.
- ◆ Suitable for use in precast, prestressed and poured-in-place applications.
- ◆ Use in lightweight and air entrained concrete.

### ADVANTAGES

- ◆ Silane penetrates deep into the substrate to achieve a high level of water and chloride screening.
- ◆ Protects against the damaging effects of water intrusion, deicing chemicals and exposure to freeze/thaw conditions.
- ◆ Contains 51% active silane to penetrate deep into the capillaries of the substrate without producing a film.
- ◆ Breathable to allow interior moisture to escape without damaging sealer.
- ◆ Colorless, non-staining, non-yellowing – does not alter the natural appearance of concrete's surface.
- ◆ Protects without altering the appearance or texture of the treated surface.
- ◆ Chemical reactions with the capillaries form long-lasting water repellent groups that crosslink to minimize water intrusion.
- ◆ As a water repellent, helps to protect from damage caused by chloride ion intrusion to extend the life of the treated surfaces.
- ◆ Leaves no residue on non-porous surfaces such as glass, metal frames or painted surfaces.

### ▲ PRECAUTIONS ▲

- ◆ Due to the low flash point, STIFEL 40 is only recommended for exterior applications and are NOT recommended for interior or enclosed applications.
- ◆ Certain extremely porous substrates may require an alternative STIFEL sealer to provide maximum performance. Contact Nox-Crete for more information.
- ◆ Do not apply to concrete less than 28 days old.
- ◆ Do not apply to frost covered or permeated surfaces.
- ◆ To ensure proper performance, substrate temperatures must be above freezing, 32° F (0° C), at the time of STIFEL 40 application, and remain above freezing for at least 8 hours following product application.
- ◆ Application to inadequately cleaned or wet substrates could result in less than optimum performance.
- ◆ Product may damage vegetation with contact.
- ◆ May not be compatible with certain paints, caulks, sealants or coatings.
- ◆ Verify that product is within the "USE BY" date stated on product packaging. Do not use expired product. The use of expired product may result in poor product performance or failure.
- ◆ Product stored at temperatures below 40° F(4° C) may gel and require warming prior to use.

### USE INSTRUCTIONS

- ◆ Request current (verify) product literature, labels and safety data sheets from manufacturer in writing and read thoroughly before product use.
- ◆ Environmental and substrate conditions and construction type have a major impact on product selection, application methods, appearance and performance. Product literature provides general information applicable to some conditions. However, an adequate site test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.
- ◆ Substrate should be a minimum of 28 days old and free from accumulations of dust, oil, grease, rubber tire residue, concrete curing or bondbreaker membrane or residue, paint, protective sealers or other foreign materials.
- ◆ For existing concrete surfaces previously exposed to vehicular traffic, dustless abrasive shotblasting, sandblasting or high pressure, 3,000 psi (21 MPa min.),

STIFEL 40

Water Repellent Sealer



chemical solutions to concrete problems

water blasting is recommended to remove surface contaminants and open substrate for maximum sealer penetration.

- ◆ For existing brick and masonry unit construction, rout and tuckpoint all unsound or cracked mortar joints. Seal all sources of moisture entry at eave, parapet or flashing points. Once repairs are completed, clean walls with a suitable masonry cleaner to remove any efflorescence, mortar residue or laitance.
- ◆ Allow cleaned surfaces to dry for 48 hours or more.
- ◆ Mix container contents thoroughly immediately prior to use.
- ◆ Horizontal application rates on most concrete substrates is saturation to surface rejection or approximately 125 sf / gal (3.1 sm / L), whichever occurs first. The typical application rate for porous concrete is 100 sf / gal (2.5 sm / L) and 175 sf / gal (4.3 sm / L) for dense, non-absorbent substrates.
- ◆ Vertical application rates range from approximately 100 sf / gal (2.5 sm / L) on porous substrates, such as fractured face or fluted masonry blocks and soft bricks, to 175 sf / gal (4.3 sm / L) on dense, non-absorbent substrates such as precast concrete and hard brick. Proper application rate is achieved at saturation to surface rejection and approximately 8-12 inches (20-30 cm) of run down.
- ◆ Apply using a low pressure, high volume sprayer or hand pump, air pressure-type construction sprayer. Large horizontal areas may also be applied with push brooms.
- ◆ Applied product will flow to low areas or openings. Openings in the substrate, such as sewer or storm drain inlets, should be plugged to prevent accidental entry or escape of material.
- ◆ Using a broom, redistribute accumulated material from depressions or puddles to insure maximum penetration.
- ◆ For vertical applications, apply to a wet edge and avoid overlaps or recoating of previously treated areas.
- ◆ Clean application equipment promptly with soap and water.
- ◆ Treated surfaces should be swept clean and washed down at least quarterly. Areas subject to wheel traffic or other wear should be retreated when wear approaches product penetration depth.

## TECHNICAL DATA

	Stifel 40 - 350	Stifel 40 - 600
<b>Color, ASTM D-2300</b>	<0.5	<0.5
<b>Clarity</b>	Clear	Clear
<b>Odor</b>	Acetate	Alcohol
<b>VOC</b>	<400 g / L	<600 g / L
<b>Bulk Density</b>	8.0 lbs./gal. (961 g/L)	7.0 lbs./gal. (839 g/L)
<b>Freeze Point</b>	Below 36° F (2° C)	Below -20° F (-29° C)
<b>Flash Point</b>	63° F (17° C)	24° F (-4° C)
<b>Dry (Dust/Tack Free)</b>	2 hours	2 hours
<b>Dry (Light Traffic)</b>	12 hours	12 hours
<b>Dry (Normal Traffic)</b>	24 hours	24 hours

## TEST DATA

Application Rate - 200 sf/gal (4.9 sm/L)	
NCHRP 244	
Series II	
Reduction in Water Absorption	86%
Reduction in Chloride Ion Absorption	87%
Series IV Accelerated Weathering, Southern Exposure	
Reduction in Chloride Ion Absorption	99%
ASTM C 672 Standard Test Method for Scaling Resistance	
100 cycles*	0+ rating
* Using non-air-entrained concrete	

## PACKAGING

Packaged in 5 gal (19 L) pails and 55 gal (208 L) drums.

## SHELF LIFE

Shelf life is one year. Use before the "USE BY" date stated on product packaging.

## HANDLING/STORAGE

Store in a dry location within a temperature range between 40° F (4° C) and 100° F (38° C).

## AVAILABILITY & TECHNICAL SERVICES

In addition to corporate offices in Omaha, Nebraska, NOX-CRETE INC. maintains regional offices and distribution centers in principal markets throughout the world. For source or technical information, call 800-669-2738 or 402-341-2080.

## LIMITED WARRANTY

### NOTICE-READ CAREFULLY

#### CONDITIONS OF SALE

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