Edison Coatings, Inc.

SILAN-TREAT 88C

THIXOTROPIC SILANE WATER REPELLENT

Description

SILAN-TREAT 88-C is a deeply penetrating, solvent-free, thixotropic silane-based water repellent for concrete, stucco and other alkaline building surfaces. It is supplied at 80% active solids content, and is applied without dilution.

Common silane water repellents have the capacity to penetrate deeply due to their low molecular weight, but they are also relatively volatile. As a result, significant portions of the applied treatment evaporate before they can penetrate and react within the substrate. Ddue to its thixotropic consistency, ***SILAN-TREAT 88C*** allows sufficient material to be placed and for it to remain in place for a sufficient period of time to achieve full penetration and protection, generally with one application.

SILAN-TREAT 88-C hydrolyzes under the influence of substrate alkalinity and atmospheric moisture and polymerizes to a polysiloxane which is tack free and hydrophobic in nature.

SILAN-TREAT 88-C silane water repellent is particularly effective for use on dense, high strength concretes as may be used in construction of bridges, roads and high-rise buildings, which are difficult to penetrate with other types of sealers. It is suitable for use on all types of concrete and other alkaline mineral substrates.

Properties

Appearance	Creamy liquid
Color	White to yellowish
Specific Gravity	0.9
Flash Point	165 ^{O}F / 74 ^{O}C
pH, approx.	7
Solids Content, %	80%
VOC	323 g/l

Higher Viscosity = Deeper Penetration = High Durability
It may seem counter-intuitive, but SILAN-TREAT 88C's ***high viscosity actually helps it penetrate better than common silanes because the treatment is held in place long enough to fully penetrate even the densest concretes.***

SILAN-TREAT 88C has been designed for use on above grade exterior surfaces and is characterized by the following properties:

- ☐ Excellent penetration
- ☐ High alkali resistance
- ☐ Highly permeable to water vapor
- ☐ Excellent water repellency
- ☐ Effective Resistance to Chloride Ion Penetration
- ☐ Effective Resistance to Salt Scaling

Application

SILAN-TREAT 88C is generally used at a solids level of 80%, as supplied. It can be applied by spraying, rolling, brushing or dipping. Normally one applications is sufficient. During application precaution should be taken to protect the surrounding area from overspray and run-off of the sealer. Prevent contact with bituminous materials.

SILAN-TREAT 88C must be applied to uniformly surface-dry substrates only, with no damp patches. Do not apply when humidity exceeds 95% or when rain is forecast within 4 hours. Should rain occur unexpectedly during application, stop work and cover all uncured surfaces with impermeable tarps.

Existing, weathered concrete surfaces should be cleaned prior to treatment. Consult your Edison Coatings technical representative for guidance on preferred cleaning methods.

New Concrete & Patches

As a standard procedure, fresh concrete should be allowed to cure for 14-28 days before applying the silane solution.

It may be applied as soon as 7 days after application of ***Custom System 45 and System 44-Series*** patches, and just 24 hours after application of ***Thin Fill 55.***

Coverage

The actual amount of material that is used for each application is dependent on the absorptive capacity of the substrate. As a net result, it is recommended that preliminary tests be carried out to find out the actual amount of material needed and to test for effectiveness. ***SILAN-TREAT 88C should be applied at a coverage rate of between 125 and 185 square ft./gallon.***

Limitations

Do not use on brick, terra cotta, sandstone or other non-alkaline building surfaces.

Performance

The following test data has been developed for ***SILAN-TREAT 88C.*** This data is not intended for use as specifications.

TEST	DESCRIPTION	COVERAGE RATE	RESULT
Alberta Spec B388; BT001 Type 1B	Vapor Transmission	184 sq ft/gal	70.0%
	Waterproofing after Abrasion	184	90.2%
	Alkali Resistance	184	87.2%
NCHRP 244 Series II	Reduction in Water Absorption	370	1 day: 82% 5 day: 81% 21 day: 79%
		184	1 day: 83% 5 day: 81% 21 day: 77%
	Reduction in Chloride Ion Content	184	1 day: 79% 5 day: 83% 21 day: 86%
Series IV	Accelerated Weathering - Resistance to UV Light Reduction in Soluble Chloride	184	95% Reduction No Discolora-tion
ASTM E514	Water Penetration	184	89% Reduction
ASTM E96	Water Vapor Transmission	184	Up: 2.6 perms vs. 3.5 for Control; Down 2.4 perms vs. 3.3 for control
AASHTO T-259 & T-260	Resistance to Chloride Ion Penetration	184	74%, 52%, 0% reduction at each depth
ASTM E303	Skid Resistance	184	BPN = 92 (dry), 83 (wet) Control = 83 dry, 87 wet
ASTM F609	Slip Resistance	370	f=0.8
ASTM C672	Salt Scaling Resistance	370	Control: 40 Treated: 70-80 cycles

Safety and Handling

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet.

Storage and Shelf-Life

Under normal warehouse conditions in airtight containers ***SILAN-TREAT 88*** can be stored for about nine (9) months. The material should be stored below 85^{O}F and protected from air contact or atmospheric humidity.

FOR COMMERCIAL AND INDUSTRIAL USE ONLY

Published: 03/2015

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