POLY TOP SEAL CSx-20

PENETRATING CONCRETE SEALER

OIL, GREASE AND SOLVENT RESISTANT PENETRATING SEALER FOR CONCRETE

MANUFACTURER

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PRODUCT DESCRIPTION

Poly Top Seal CSx-20 is a unique waterborne, non-flammable polysiloxane/Teflon penetrating sealer. It is specifically engineered for the treatment of parking decks, bulk storage facilities, truck and rail shops, maintenance areas, veterinary clinics, animal kennels or area's that must have easy ice removal. **CSx-20** will protect against moisture intrusion as well as oils, chlorines, grease and a variety of acids and solvents (not MEK), efflorescence, staining due to atmospheric carbons, mold, mildew, metal, salts, corrosion. **CSx-20** is a penetrating system that is not susceptible to UV degradation.

TECHNOLOGY

The **CSx-20** system utilizes unique a chemistry of polysiloxanes coupled with proprietary technologies to provide high performance products that are environmentally safe. **CSx-20** is a highly reactive, cross-linked polysiloxane, Teflon formulation that is capable of penetration rates ¼" to ¾" into the concrete. Broom finished surfaces may attain 1 ½". The formula attaches itself to the substrate particles by electrochemical means. During the curing process the system reacts with certain elements in the concrete to form a sub-surface vapor permeable elastomeric membrane. The membrane allows the treated matter to breathe normally while impeding contaminants from spreading, wetting and ground moisture absorption through capillary channeling. **CSx-20** may increase the slip coefficient when applied on smooth steel trowel finished surfaces.

AREAS TO BE TREATED

Broom finished concrete, concrete block, ponds, fountains, pools, and split face block. **Exclusions:** Bricks, masonry, tile, natural stones, limestone, painted concrete, SMOOTH concrete, exposed aggregate, and pavers.

PRIMARY BENEFITS

- Long-term performance.
- Vapor permeable.
- UV resistant.
- Oil, grease and solvent resistant.
- Very cost effective versus urethanes and epoxies.
- Prevents the water absorption/retention required for the growth of fungi or algae.
- Prevents adhesion of dirt and organic pollutants.
- Very low VOCs/non-toxic/non-hazardous.
- Provides protection in extreme temperatures between -50°F and +225°F (-45.6°C and +107.2°C).

TECHNICAL DATA

V.O.C. Content: <0.27 lbs./gal

Flashpoint: >+212°F (+100°C)

Penetration: 0.18–0.44"

U.V. Resistance: Pass (QUV 7500 Hrs)

Breathability: 96.6% (ASTM D1653)

Water Leakage: 99.4% (ASTM E 514)

Chloride Absorption: 98.3% (NCHRP 244)

Simulated Wind Driven Rain: Pass (FS TTP 0035)

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SURFACE PREPARATION

The material to be treated should be dry and free of non-integral dust, dirt, oil, wax, curing compounds, mildew, algae, alkali salts, efflorescence, coatings, and other graffiti matter. If being applied to an existing structure, the substrate should be thoroughly washed to remove all efflorescence, dirt, mildew, and fungi. Allow adequate time for drying prior to application.

- The area to be treated should have relative moisture content of less than 15%.
- The temperature of the substrate should be 40°F to 120°F (4.4°C to 48.9°C)

Clean Substrates: Use methods compatible with substrates and required appearance including, as applicable.

- Sweeping and compressed air blasting.
- Water blasting.
- Sandblasting, follow with an air and/or water blast to remove loose particulate.
- Detergent scrubbing. Rinse with water and allow to dry.
- Chemical cleaners that are residual free and do not interfere with penetrating sealer/repellent. Rinse with water and allow substrate to dry.
  - Protect against over spray onto glass surfaces, plants, plastic, asphaltic surfaces, painted and polystyrene insulation surfaces.
  - Protect surfaces against oil/grease/fuel drips caused by cleaning equipment and other contamination of surfaces that are to be tested prior to use.

Joint Sealants:

1. If necessary, install joint sealants as specified in other sections and allow to cure before application of water repellent.
2. If joint sealants are installed after application of **CSx-20**, verify adhesion of joint sealant to treated surfaces, prior to execution of work. If required, protect joint sealant adhesion surfaces against over spray.
3. Install asphaltic joint sealant after application of **CSx-20**.

Field Sample: Apply prior to general execution of work to determine visual and physical or chemical effect of sealer.

1. Prepare substrates and apply **CSx-20** to a 100 square foot area. Apply to locations indicated by architect/designer/engineer. Notify architect/designer/engineer seven days prior to application of field sample.
2. Test area samples may remain as part of general work.
3. Sample shall indicate that there is no change appearance and when water is poured on the sample, the water shall bead or run off and not soak in.

EQUIPMENT

Spray Equipment: 60 psi or below airless, and/or Hudson pump up type. Tip should be fan pattern. Keep equipment and hoses clean and free of foreign contaminants that could obstruct equipment or be deposited on surfaces to be treated.

PROJECT CONDITIONS

Environmental Requirements: Do not apply when the following conditions are present, except with written instructions from manufacturer:

- Ambient or surface temperature less than 40°F (4.4°C) or predicted to fall below 40°F (4.4°C) within 24 hours prior to or following application.
- Rain within 72 hours prior to application or predicted within 24 hours after application.
- Wet or frozen substrates.
- High winds which could cause excessive over spray.
- Apply **CSx-20** as early as practical to protect substrates during construction. Do not apply to walls until wall cap is finalized.
- Allow joint mortar to cure seven days before treatment. (Based on 70°F (21.1°C) and 60% relative humidity).

METHOD OF APPLICATION

Apply in a two wet-on-wet application.

1. Attach ⅜" mixing tool to your power drill.
2. Remove cap on the top of the pail and insert mixing tool.
3. Fill pump-sprayer with mixed sealer.
4. Spray onto the surface maintaining a wet film-**CAUTION–DO NOT OVER SATURATE.** Spray motions should be side-to-side and followed by a crosshatch up and down motion.
5. While the surface is still damp, apply a second application within 15 to 20 minutes.
6. Avoid pooling or excessive rundown. Sweep away any puddles 15 minutes after initial application.

ENDUR-O-SEAL™

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PRODUCT BULLETIN

POLY TOP SEAL CSx-20

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COVERAGE

Apply in accordance with the rates stated below or per architectural guide specifications. The following are approximate and may vary due to porosity of material to be treated. Do not dilute or modify, apply as supplied. Mix well before using. Some split face block may require several applications.

Vertical Surfaces:

Precast: 250–400 sq. ft./gal.
Poured-in-place: 350–450 sq. ft./gal.
CMU (smooth): 250–300 sq. ft./gal.
CMU (Split face): 200–275 sq. ft./gal.

Horizontal Surfaces:

Poured in-place: 300–400 sq. ft./gal.
Compressed paver: 100–200 sq. ft./gal.

PACKING AND STORAGE

Available in five gallon pails. Storage should be maintained in sealed containers between 40°F and 100°F (4.4°C and 37.8°C) and out of direct sunlight. Product is specially mixed to order with low shelf-life expectancy and should be used within 6 to 12 months post order.

CLEANING

Clean overspray on glass or metallic surfaces before evaporation of water. Wipe dry with clean, dry-cloth. If material has cured use a 50/50 mix of denatured alcohol and water and rub with a clean cloth.

PROTECTION

- Do not permit traffic on treated surfaces until completely penetrated and the substrate is fully dry.
- Treated areas should be kept moisture free for 8 to 12 hours after application.
- **Always utilize proper industrial hygiene practices.**
- Adequate ventilation should be provided during application and observe manufacturer's safety instructions. Read SDS and labels before using.

CONTENTS

SILANES/SILOXANES MIXTURE: 2-74% (approx. weight %)

Methyl Alcohol 64-17-5: <5% (approx. weight %)

N,N-Dimethyltetradecanamine: <2% (approx. weight %)

Hydroxylamine, O-decyl-: <1% (approx. weight %)

WARRANTY

The information and recommendations made herein are based on research and that of others and are believed to be accurate. No Guarantee of test accuracy is made due to the considerable number of variables which can affect field application and performance of products including but not limited to surface conditions, job conditions. Users and purchasers are encouraged to determine the suitability of this product for particular purposes. EOS SYSTEMS warrants this product to conform to stated specifications and be free of defects at time of shipment. The company makes no other warranties either express or implied.

CUSTOMER/TECHNICAL SERVICE

SYSTEMS provides a variety of technical services regarding the function and use of product. If you have any questions please contact your sales representative for further information 800-259-8855.

SAFETY INFORMATION

Please refer to Safety Data Sheet.

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