

GUIDE SPECIFICATIONS

SECTION 17190 – PENETRATING SEALERS / WATER REPELLENTS

DESIGN REQUIREMENTS: ENDUR-O-SEAL POLY TOP SEAL CSx-20 (ST-20) is a specifically formulated polysiloxane/ Teflon® system that protects concrete floors, driveways and other structures against damage due to water penetration and staining due to oils, grease and a variety of solvents. Poly Top Seal CSx-20 provides long lasting protection against efflorescence (salt or lime leaching), staining due to atmospheric carbons, mold, mildew, metal, salts, chloride penetration, corrosion, most acids, acid rain, caustics, dampness, and other water related damage. Stops ground water migration. For complete product information call Endur-O-Seal USA, Inc. at (281) 356-5117 or fax (281) 356-9332.

PART 1.GENERAL

1.01 SUMMARY

- A. Penetrating Sealers / water repellents

1.02 SUBMITTALS

- A. Follow section 01340
- B. Submit Endur-O-Seal product data and application instructions

1.03 QUALITY ASSURANCE/CONTROL

- A. Follow section 01400
- B. Applicator: Company specializing in applying coatings, waterproofing/repellents with five (5) years minimum experience and approved by manufacturer required. Consult local distributor or Endur-O-Seal for recommendations.

1.04

- A. Field samples should be applied prior to general execution of work to determine visual and physical or chemical effect of sealer. Prepare substrates and apply Poly Top Seal CSx-20 to a 100 square foot area. Apply to locations indicated by architect/designer/engineer. Notify architect/ designer/engineer seven (7) days prior to application of field sample.
- B. Test area samples may remain as part of general work.
- C. Sample shall indicate that there is no change in appearance and when water is poured on the sample, the water shall bead or run off and not soak in.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Follow section 01610
- B. Deliver products to site with containers unopened and with manufacturer's seal intact.

1.06 PROJECT CONDITIONS

- A. Environmental Requirements: Do not apply Poly Top Seal CSx-20 when the following conditions are present, except with written instructions from manufacturer:
 - 1. Ambient or surface temperature less than 40° F or predicted to fall below 40°F within twenty – four (24) hours prior to or following application.
 - 2. Rain within seventy- two (72) hours prior to application or predicted within twenty- four (24) hours after application.
 - 3. Wet or frozen substrates
 - 4. High winds which could cause excessive over spray.

1.07 SCHEDULING

- A. Apply Poly Top Seal CSx-20 as early as practical to protect substrates during construction.
- B. Poured/ Cast-in-Place Concrete Substrates: Allow to cure seven (7) to ten (10) days before treatment. (Based on 70° F & 60% relative humidity)
- C. Concrete Masonry Substrates: Allow mortar to cure seven (7) days before treatment.

1.08 **WARRANTY**

- A. Provide Manufacturer's limited five (5) year warranty. Failure is indicated by water into the substrate surface, when water is placed on surface.

PART 2 PRODUCTS

2.01 **MANUFACTURERS**

- A. Endur-O-Seal USA, Inc., 12502 Lazywood, Pinehurst, Texas 77362, Tel (281) 356-5117 or (281) 356-9332 fax.

2.02 **MATERIALS**

Water based membrane-forming polysiloxane penetrating sealer; this system is non-flammable, non-hazardous and non-toxic.

1. Maximum VOC content; 0.27 lbs/gallon, complies with all applicable regulations regarding VOC's.
2. Do not dilute or modify CSx-2O, apply as supplied.

2.03 **EQUIPMENT**

- A. Spray Equipment: 40-70 psi airless, pressure pot or Hudson pump up type. Tip should be fan pattern and of the size typically used for lacquer. Keep equipment and hoses clean and free of foreign contaminants which could obstruct equipment or be deposited on surfaces to be treated.
- B. Brush, Roller.

PART 3 EXECUTION

3.01 **INSTALLATION**

- A. Confirm that the substrates have been prepared properly, and weather conditions are suitable for application. Notify architect/designer/engineer in writing of unsatisfactory substrates and conditions. Do not continue until conditions have been corrected in a manner acceptable to applicator.

3.02 **PREPARATION**

- A. Clean substrates: Remove dirt, oil, wax, curing compounds, efflorescence, coatings, and other graffiti matter. Use methods compatible with substrates and required appearance including, as applicable
 1. Sweeping and compressed air blasting
 2. Water blasting
 3. Sandblasting: Follow with an air and/or water blast to remove loose particulate.
 4. Detergent scrubbing. Rinse with water and allow to dry.
 5. Chemical cleaners which are residual free and do not interfere with penetrating sealer/repellent. Rinse with water and allow to dry.

If you have questions or concerns, consult Endur-O-Seal USA, Inc. @ (281) 356-5117 for information or recommendations.

Always protect glass and non-porous materials. Poly Top Seal CSx-2O will not harm plants, asphalt, glass, metal or aluminum. Some plastics, such as polystyrene will be damaged by CSx-2O. PTS CSx-2O is compatible with most joint sealants; specific joint sealants should be investigated for adhesion to treated surfaces. Contact Endur-O-Seal for assistance.

- a. Protect against over spray onto glass surfaces, plants, plastic, asphaltic surfaces, painted and polystyrene insulation surfaces.
- b. Protect surfaces against oil/grease/fuel drips caused by cleaning equipment and other contamination of surfaces that are to be tested.

B. JOINT SEALANTS - NOTICE!

1. If necessary, install joint sealants as specified in other sections and allow to cure before application of Poly Top Seal CSx-2O
2. If joint sealants are installed after application of Poly Top Seal CSx-2O, 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 Poly Top Seal CSx-2O.

3.03 APPLICATION

A. General:

1. Properly cleaned and dry area to be treated, if unsure as to the best procedure, contact Endur-O-Seal or substrate manufacturer.
2. The temperature of the substrate should be 40°F – 120 (4.4 C - 49° C)
3. The area to be treated should have relative moisture content of less than 10%.
4. The PTS CSx-2O should be thoroughly mixed prior to application.
5. Apply a thorough wetting coat in accordance with rates specified below, but **DO NOT PUDDLE SEALER ON FLOOR SURFACES.**
6. If applying by spray, motion should be side to side and followed by a crosshatch up and down motion. **A second damp application is sometimes applied.**
7. On horizontal applications, remove any excess after fifteen (15) minutes from initial application (use clean mop or cotton cloth).
8. Treated areas should be kept moisture free for 8-12 hours after application.
9. *****Always test a sample area prior to application***, **4' X 4'** recommended**
10. Some porous concrete may require two (2) applications

- B. If work is stopped prior to completion, clearly mark location and resume work without any gap in coverage.

C. COVERAGE:

1. Vertical Surfaces:

Precast:	250 (minimum)/ 400 (maximum) sq. ft./Gal.
Poured in-place:	400 (minimum)/ 450 (maximum) sq. ft./Gal.
CMU (Smooth):	250 (minimum)/ 350 (maximum) sq. ft./Gal.
CMU (Split Face):	200 (minimum)/ 275 (maximum) sq. ft./Gal.

2. Horizontal Surfaces:

Poured in-place:	300 (minimum)/ 400 (maximum) sq. ft./Gal.
Compressed paver:	100 (minimum)/ 200 (maximum) sq. ft./Gal.

3.04 CLEANING

- A. Clean over spray 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.

3.05 PROTECTION

- A. Do not permit traffic on treated surfaces until Poly Top Seal CSx-2O has completely penetrated and the substrate is fully dry.
- B. Treated areas should be kept moisture free for 8-12 hrs. after application.
- C. Always utilize proper industrial hygiene practices. Adequate ventilation should be provided during application and observe manufacturer's safety instructions. Read MSDS and labels before using.

END OF SECTION