



GreatSeal

PE-150 Multipurpose Sealant

PART 1: GENERAL

1.01 Description of Work

- A. GreatSeal PE-150 is a high performance interior or exterior joint sealant for use in both moving and non-moving joint applications providing a long lasting weather-tight seal to a variety of building substrates.

1.02 References

- A. ASTM C-920, Type S, Grade NS, Class 25, use NT, T, M, G, A, and O
- B. Fed Specification TT-S- 230-C Type II, Class A
- C. Corps of Engineers CRD-C-541, Type II Class A
- D. Canadian Standards Board CAN 19, 13-M82

1.03 Quality Assurance

- A. Perform Work in strict adherence to STS Coatings's instruction
- B. Maintain one (1) copy of application instructions on job site
- C. Allow access to the Work by the STS Coatings's representative
- D. Components used in this section shall be obtained from a single distributor
- E. With 7 days notice a pre-job conference is to convene prior to commencing the Work
- F. Mock up: as directed by the architect and it may remain as part of the Work

1.04 Product Storage And Handling

- A. Deliver materials to the job site in undamaged and original packaging indicating the name of the manufacturer and the product
- B. Store materials on end and in original packaging and above 40°F. Keep away from all flame or excessive heat

1.05 Job Condition

- A. Work is to be performed only in climatic conditions stipulated by manufacturer which are normally 40°F and rising with a maximum Relative Humidity of 80%. No application in the presence of dew, fog or when rain is forecast within 12 hours.
- B. All preparation work must be complete prior to application of PE-150.

PART 2: PRODUCTS

2.01 Physical Properties

- A. Vehicle Base: 100% solids, solvent-free formulated silyl-terminated polyether.
- B. Elongation @ break, ASTM D-412: >300-400%
- C. Hardness Shore A, ASTM C-661: 30+/-
- D. Tack Free Time, ASTM C-579: 45 minutes
- E. Shear Strength, ASTM D-1002: 150 psi
- F. Slump (sag), ASTM C-697: zero
- G. Shrinkage: none measurable after 14 days
- H. Shelf Life: 1 year under normal conditions
- I. Solvents: none

PART 3: EXECUTION

3.01 Examination

- A. Verify that surfaces and conditions are ready to accept the Work of this section. Follow all manufacturer instructions on acceptability of substrate.

3.02 Preparation

- A. Joint Design
 - 1. All joint installations shall be installed per ASTM and SWI recommendations and guidelines.

2. Joints shall be designed with a depth to width ratio of 1:2 (joint depth one-half the width).
3. It is recommended that the joint shall be no less than 1/4" wide by 1/4" deep (6mmX6mm).
4. The maximum depth of any sealant shall be 1/2" (13mm).
5. Control the depth of the sealant by using a Backer Rod that is 25% larger than the joint opening at its median temperature.
6. In instances where the joint configuration will not permit a backer rod it is recommended that the use of an alternative bond breaker be used.
7. Prevention of three-point adhesion is necessary through the use of a backer rod or bond breaker tape to ensure proper joint movement and a long lasting weatherproof seal.
8. All substrates must be sound, hand dry, clean and free of oil, grease, excess mortar, dust or other contaminants. Starting the work is an acceptance of the substrate.

B. Metal

1. All Metal shall be prepared in a manner to ensure maximum adhesion. It is recommended that coated substrates be tested for adhesion prior to commencing the project. Please contact Technical Services for recommendations and specific application guidelines.
2. Remove all rust, scale and residue by wire brushing to a bright metal.
3. Protective films, coatings and oils shall be removed with an appropriate solvent such as MEK (methyl-ethyl ketone).
4. Certain protective coatings that cannot be removed may require the use of a primer prior to application of the sealant.

C. Concrete

1. Concrete and masonry substrates shall be fully cured and dry prior to the application of the sealant.
2. Remove any contamination by mechanical abrasion or sand blasting.

D. Wood:

1. Wood shall be clean, sound and dry prior to the application of the sealant.
2. Treated wood shall be dry and allowed to weather for 6 months.
3. Coatings and paint shall be removed (or tested for compatibility) to ensure a proper bond.

E. Priming

1. In most instances GreatSeal PE-150 will not require a primer. However, certain applications or substrates may dictate that a primer is used to ensure a long lasting bond and weatherproof seal. It is the responsibility of the users to determine the necessity of a primer.
2. GreatSeal PE-150 recommends that in any instance where prolonged immersion is anticipated that a primer be utilized for best performance.
3. Apply a primer at full strength and allow to dry for approximately 15 minutes (based on 70 degrees F and 50% relative humidity).
4. Apply in such a manner that the primer covers the entire joint face but does not run or puddle onto the backer rod or bond breaker tape.

3.03 Installation

- A. GreatSeal PE-150 is a one component ready to use material that requires no mixing or preparation.
- B. Use a quality caulking gun to ensure ease of application.
- C. Application shall occur only when temperatures are above 40 degrees F and inclement weather is not predicted.
- D. Cut the plastic nozzle at a 45 degree angle in approximately the size of the joint opening.
- E. Begin gunning the material filling the joint from the bottom to the surface ensuring there are no voids or air pockets in the joint.
- F. Dry tooling of the sealant is recommended using a tool to create a strong mechanical bond against the joint faces.

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