

PRODUCT DESCRIPTION

Strong-Seal® Geopolymer is a specially-formulated, fiber-reinforced mortar. Strong-Seal® Geopolymer is the sustainable solution for stopping infiltration, restoring structural integrity, and protecting against corrosion in corrugated metal pipe, concrete pipes, culverts, catch basins, storm drains, manholes, and other sanitary and stormwater infrastructure. Strong-Seal® Geopolymer shall meet or exceed industry standards and shall not have any basic ingredient that exceeds EPA maximum allowable limits for heavy metals. This product is specifically formulated for applications with a pH of 1.0 or higher.

PERFORMANCE SPECIFICATIONS

Compressive Strength (ASTM C109)	Flexural Strength (ASTM C293)
>8,000 psi 28 Days	>1,300 psi 28 Days
Tensile Strength (ASTM C496)	Freeze/Thaw Resistance (ASTM C666)
>800 psi 28 Days	Pass, No Damage 300 Cycles
Bond Strength (ASTM C882)	Drying Shrinkage (ASTM C596)
>2,500 psi 28 Days	0% 28 Days @ 90% RH
Wet Unit Weight (ASTM C138)	Packaging
135 ± 5 lb/ft ³	60 - 67 lb bag / 40 bags per pallet
Yield per Bag	
0.57 ft ³ @ ½" thick	

TYPICAL STRUCTURES

Geopolymer provides a system for infrastructure rehabilitation in structures including but not limited to:

- Manholes
- Tanks & Containment
- Tunnels & Pipelines
- Wastewater Facilities

EQUIPMENT

Approved application equipment includes the SprayMate® 35C, SprayMate® 35D, and MiniMate II. If using other equipment, please contact The Strong Company, Inc.

SURFACE PREPARATION

Remove all foreign material and laitance from the substrate using a high pressure water spray (minimum 3000 psi). Remove obstructions from the drain or pipe that prevent the liner from being installed. Fill any large voids with a rapid-setting patching product.

Stop active leaks using an instant-setting, specially formulated product per manufacturer's recommendations. Some leaks may require weep holes to localize the infiltration during the application. After application, the weep holes shall be plugged with the instant-setting product prior to final pass.

When severe infiltration exists, pressure grouting may be required. Follow manufacturer's recommendations when pressure grouting.

Make any bench, invert, floor, or service line repairs at this time using a rapid-setting patching product per manufacturer's recommendations.

MIXING AND APPLICATION

For each bag of product, 0.75 to 1.0 gallons of water shall be used. The required amount of water shall be added to the mixer first, followed by the bag of product. Only enough water shall be used to produce a mix consistency to allow application of liner material up to one inch thick in a single application without material "sagging" on vertical surface and using the approved equipment for mixing and application.

Prepared mix shall be discharged into a hopper and another batch prepared to occur in such a manner as to allow application continuously without interruption until each application is complete.

Confirm substrate is clean and free of all foreign material and is damp without noticeable free water droplets or running water prior to application. Apply material up to one (1) inch thick in one or more passes starting from the bottom; minimum total thickness shall not be less than one (1) inch.

A rotating castor may be used to apply the material. Position the castor in the center of the pipe and retrieve the equipment at a steady rate for the material to be applied at the required thickness.

CURING

Caution will be taken to minimize exposure of applied product to quick surface drying and air movement. In extremely hot and arid climates, these structures should be shaded while reconstruction is in progress and a concrete curing agent that meets ASTM C309 should be used. Contact manufacturer for curing compound recommendations.

Hold times for the final application are as follows: storm run-off and surcharge – 4-6 hours; force main impact – 6-8 hours.

WEATHER

Do not apply if ambient temperature is below 40°F. Do not apply to frozen surfaces or if substrate is expected to freeze within 24 hours after application. Keep the material temperature at time of application below 90°F. Do not allow water temperature to exceed 80°F. Chill with ice if necessary.

ACCEPTANCE

Cast four 2 inch cube specimens each day or for every pallet of material used, whichever occurs first. Properly package, label, and return specimens to the manufacturer for testing in accordance with the owner's or manufacturer's directions for compressive strength per ASTM C109.

