Strong-Seal®
SYSTEMS



STRONG-SEAL®
HIGH PERFORMANCE MIX

RESISTANT REHABILITATION
OF CONCRETE AND MASONRY STRUCTURES

ULTIMATE CORROSION RESISTANCE
Engineered with pure fused calcium aluminate, delivers superior MIC protection and unmatched durability in corrosive environments.

UNRIVALED LONGEVITY
Unlike ordinary cements, Strong-Seal® High Performance Mix resists corrosion and weight loss, providing superior long-term protection for infrastructure integrity.

NEXT-LEVEL MICROBIAL DEFENSE
Proven to inhibit bacteria and control biosulfuric acid, this product outperforms ordinary cements by regulating pH and stopping MIC in sewers. With compressive strength over 7,000 PSI in 28 days, it ensures durable structural support for concrete and masonry.

TOP-TIER STRUCTURAL RESTORATION
Beyond corrosion protection, this high-performance mix stops infiltration and restores the structural strength of manholes, pipelines, and wastewater facilities, making it the go-to solution for critical infrastructure repair.



Part Number	Description
STRS-PP	Strong-Seal Profile Plus Cementitious Liner I 60 lb. Bag

Fernco Inc.
INFRASTRUCTURE

UNITED STATES
(877) 450-3701
www.fernco.com

CANADA
(519) 332-6711
www.fernco.ca

PRODUCT DESCRIPTION

High Performance Mix (HPM) provides a system for the rehabilitation of concrete or masonry structures to stop inflow, infiltration, exfiltration, and restore structural integrity where there is evidence of severe hydrogen sulfide (biogenic) corrosion. HPM is a 100% pure-fused calcium aluminate cement product blended with alkaline-resistant fiberglass reinforcement and performance enhancing admixtures used to form a structural monolithic liner covering all interior substrate surfaces. HPM is specifically formulated for applications with a pH of 1.0 or higher.

PERFORMANCE SPECIFICATIONS

Compressive Strength (ASTM C109)	Flexural Strength (ASTM C293)
>9,000 psi | 28 Days	>1,500 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)**
>2,000 psi | 28 Days	0% | 28 Days @ 90% RH
Wet Unit Weight (ASTM C138)	**Packaging**
145 ± 5 lb/ft^3	60 lb bag / 40 bags per pallet

Yield per Bucket
0.49 ft^3 / 11.6 ft^2 @ ½" thick

TYPICAL STRUCTURES

HPM provides vertical, horizontal, and overhead repairs to a variety of concrete andmasonry structures including:

- 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 loose and protruding brick, mortar, and concrete using a mason's hammer, chisel and/or scraper. 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 rapidsetting patching product per manufacturer's recommendations.

MIXING

Use 1.0 to 1.3 gallons of water per bag of product. Add the required amount of water to the mixer first, followed by product. Mix until consistency allows for application of up to one inch thick without material "sagging" on a vertical surface. Use the minimum amount of water to achieve desired consistency. Follow all other manufacturer's recommendations.

Discharge mixed material into hopper and prepare another batch in such a manner as to allow continuous application without interruption until complete.

APPLICATION

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; however, minimum total thickness shall not be less than ½ inch.

Trowel the surface to a relatively smooth finish being careful not to over trowel. Apply a wet brush finish to the troweled surface. Follow manufacturer's recommendations when more than 24 hours have elapsed between applications.

After vertical and overhead application, apply material to bench or floor so that a gradual slope is produced from the walls to the invert or center of the floor. Provide a ½ inch minimum thickness at the invert or center of the floor. Round the wall/bench/floor intersection to a uniform radius the full length of the intersection. Trowel and brush finish as detailed above.

CURING

Take care to minimize exposure of applied material to sunlight and air movement. Cover the structure if application of additional passes is to be longer than 15 minutes. Do not expose to sunlight or air movement for longer than 15 minutes before covering or closing access. Shade the structure in hot and arid climates during application. Keep the applied material damp for the first 72 hours if the humidity level is below 70%. An ASTM C309 curing compound may be used in lieu of keeping material damp.

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.