

Strong-Plug®

Technical Data Sheet

Rev: 04-2018

Product Description

Strong-Plug® provides a system for the stopping and sealing of leaks in concrete or masonry structures prior to the application of Strong-Seal® products. Strong-Plug® is an instant-setting, hand-mixed, hand-applied hydraulic cement product blended with masonry sand and performance enhancing admixtures used to form a waterstop against leaks. Strong-Plug® is specifically formulated to harden immediately upon contact with water and applied as a slurry or dry powder.

Performance Specifications

Compressive Strength: (ASTM C109)

>1,000 psi 1 Hour
>2,500 psi 24 Hours

Freeze/Thaw Resistance: (ASTM C666)

Pass, No Damage 100 Cycles

Sulfate Resistance: (ASTM C267)

No mass loss 15 cycles @ 2000 ppm

Pull-Out Strength: (ASTM C234)

14,000 lb

Final Set:

<1 minute

Packaging:

50 lb pail / 42 pails per pallet

Yield per Pail:

0.45 ft³ / 10.8 ft² @ ½" thick

Typical Structures

Strong-Plug® provides repairs to leaks in a variety of concrete and masonry structures including:

Manholes Tunnels & Pipelines
Tanks & Containment Wastewater Facilities

Equipment

Approved application equipment includes a clean pail or bowl and gloved hands, spoon, or trowel for mixing. 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. Enlarge any small cracks by chipping with a hammer and chisel to facilitate filling the crack with Strong-Plug® slurry or dry pack.

Mixing

Use 3.0 to 4.0 fluid ounces of water per pound of product. Add the required amount of water to the pail/bowl first, followed by product. Mix by hand/spoon/trowel until a slurry consistency is achieved. Only mix near the application site in amounts that can be applied within 1 minute. Use the minimum amount of water to achieve desired consistency. Mixing is not required when applying dry product directly to leak. Follow all other manufacturer's recommendations.

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.

For slurry application: Quickly and firmly apply slurry by hand/trowel to leak. Firmly hold in place until material has set.

For dry application: Quickly and firmly apply powder by hand/trowel to leak. Firmly hold in place to allow infiltrating water to harden material. Keep holding in place until material has set.

Some leaks may require weep holes to localize the infiltration during the application. After application, the weep holes shall be plugged with slurry or powder as described above.

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

Curing

No special curing requirements are needed. Once material has set, Strong-Seal® products can be immediately applied overtop.

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.