The Strong Company, Inc.
Strong-Seal® Sealant

INTENT: To provide a flexible seal to prevent infiltration of water through the joint between the manhole cover frame and the chimney of the manhole.

Strong-Seal® Sealant is a 100% solids, zero VOC polyurea material specifically formulated to prevent infiltration between the manhole cover frame and manhole chimney. Strong-Seal Sealant remains flexible after set to withstand traffic loading, is impervious to commonly encountered chemicals and shall have the following minimum properties:

A. Abrasion resistance
   ASTM D4060
   1000 cycles CS-17 5mg loss
B. Adhesion
   ASTM D4541
   > 350 psi
C. Durometer hardness
   ASTM D2240
   Shore D-50
D. Tear strength
   ASTM D624
   525 psi
E. Tensile elongation
   ASTM D638
   530%
F. Tensile strength
   ASTM D638
   >2400 psi
G. Temperature service range
   -20°F to 250°F
H. Freeze/thaw
   ASTM C666
   100 cycles, no visible damage

SURFACE PREPARATION
The cast iron ring will be brought to a near-white metal surface using sand blasting or wire brushing. All active leaks will be stopped and all cracks wider than 1/8” will be patched with a quick-setting repair material such as Strong-Seal QSR. The chimney riser portion of the manhole will be prepared as follows:

New Portland concrete manholes—allow to cure a minimum of 28 days. All surface laitance, curing compounds, form release agents, oils, grease or salts must be removed and a minimum surface profile of 3 mils provided. Structures made of quick-setting, high-strength cement or concrete with latex or curing compounds must be successfully tested with Strong-Seal Sealant for compatibility.

Rehabilitated manholes—cementitious lining material must cure a minimum of 72 hours before application. Epoxy, polyurethane, polyurea and other non-cementitious lining materials must be allowed to set to “hard to the touch”, and then abraded with 40-grit sandpaper to a minimum of 3 mils surface profile.

APPLICATION
Strong-Seal Sealant cartridges must be shaken per package instructions before insertion in the spray application equipment. Install the static mixer tube and attach air supply. Spray Sealant in even coats approximately 40 mils thick until the specified thickness is obtained. Thickness can be determined with a thickness gauge. Sealant to be sprayed 2” up onto the cast iron ring assembly and 4” down onto the manhole chimney riser. The static mixer assembly should be removed immediately after spraying and the cartridge ports covered to preserve the shelf life of the remaining material in the cartridges.

WEATHER
Strong-Seal Sealant can be applied under the following conditions: material temperature in the cartridges 60°F to 120°F; surface temperature -20°F to 120°F; ambient air temperature -20°F to 120°F.

PRODUCT TESTING
Bond or vacuum testing should not be performed for 24 hours to allow the material reach full strength.

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