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**Manhole
 SurePlug**
 Regular Set
 Slow Set
 Fast Set

Description

Manhole SurePlug is a fast setting, non-shrinking, hydraulic cement compound, formulated to stop leaks in all types of concrete or masonry surfaces; and is particularly designed to instantly stop the flow of running water. Manhole SurePlug requires the addition of only potable water before plugging and sealing cracks. Manhole SurePlug is also available in three set times: Fast Set, Regular Set, and Slow Set.

Uses

Manhole SurePlug is used to plug all cracks and openings in concrete, masonry walls, dams, manholes, wells, tanks and stops water seepage at the junction of walls and floors. It is effective even under hydrostatic pressure. It is also used for anchoring bolts, hand railings, repairing cracks in concrete floors, and utility structures.

Physical Properties @ 75°F

Color	Concrete Gray	
Compressive Strength (ASTM C-109)	6 hours	400 psi
	1 day	2,000 psi
	7 days	3,500 psi
	28 days	6,000 psi
Flexural Strength (ASTM C-78)	28 days	1,200 psi
	28 days	800 psi
Tensile Strength (ASTM C-496)	28 days	800 psi
Gillmore Needle Set Time		
Slow	3-5 minutes	
Regular	1-2 minutes	
Fast	20-40 seconds	

Packaging/Yield

10 lb. plastic pail - .09 ft³ (157 in³)
 50 lb. plastic pail -.45 ft³ (778 in³)

Directions

Surface Preparation

All cracks or openings should be carefully prepared by cleaning out foreign matter, and cutting out loose materials. Also the crack must be opened to a minimum width of 1" at the surface. Wherever possible, square out the crack to the extent of making it larger at the base. Cracks should not be left in a sharp V form, particularly where water under hydrostatic pressure is to be dammed off. If possible, chip the crack into the form of an inverted V. Mix Manhole SurePlug with clean water to the consistency of putty, using only enough Manhole SurePlug that can be placed in 15 seconds. Mixing time should not take more than 1/2 minute.

After filling a crack or hole, the plug should be kept damp to assure complete hydration of the cement. Never re-temper or re-mix Manhole SurePlug. If areas to be patched are holding water under pressure, weep. Never re-temper or re-mix Manhole SurePlug.

If areas to be patched are holding water under pressure, weep holes should be made at the base of the wall to relieve the pressure.

In extremely warm weather use ice water to retard and slow down the set of Manhole SurePlug. When temperatures drop below 40°F, we recommend that all surfaces to be plugged, as well as the Manhole SurePlug, should be warmed to approximately 70°F, to achieve a more normal setting rate and for best results.

Mixing

Gradually add Manhole SurePlug to clean water and mix with a small trowel. Mix material to consistency of putty with no slump. The mix ratio for all Manhole SurePlug versions is 4 parts of Manhole SurePlug to one part of potable water. Another way to view the mix ratio is one quart of potable water mixed with 8.3 lbs. of any Manhole SurePlug product.

Applications

Force material into the crack or hole using maximum pressure and hold until set occurs. When repair areas are under high water pressure, start at the top of the area and work down. Hold Manhole SurePlug in your hand until heat is felt and then force material into crack or void. Do not ever add plasticizers, accelerators, retarders, or any other ingredients besides potable water unless advised by Kaufman Products in writing.

Cracks At Floor And Wall Junctions – Widen and clean cracks to at least 3/4" in width and depth. Force the Manhole SurePlug into the prepared crack with a round tool and smooth out. Prepare a cove at the junction.

Streams Of Running Water - Prepare all cracks properly and, if possible, relieve excess hydrostatic pressure by drilling a relief hole or by chiseling out the crack at its very lowest point. After mixing, immediately place the Manhole SurePlug and force into the hole or crack that is to be sealed. Start filling cracks or holes at the top to close the final opening and to seal off a stream of water. At that moment force it into the hole and exert pressure either with your hand or trowel for a full 5 minutes or longer. In some cases, where the water is extremely cool, it may be necessary to hold the plug in place for a little longer.

Bolt Anchoring - Use a star drill to make a hole 1 inch to 1 1/2" larger in diameter than the anchor bolt. Mix Manhole SurePlug with water, and quickly pour and tamp it into place around the anchor bolt.

Precautions

Manhole SurePlug contains Portland cement. Manhole SurePlug becomes alkaline on contact with water. Care should be exercised to prevent splashing on sensitive skin. This product is intended for industrial use only. *Read Safety Data Sheet before using.*

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment