



# SILATEC MSM MICROSILICA MORTAR

## MANUFACTURER

A.W. Cook Cement Products  
242 Amy Industrial Lane  
Hoschton, GA. 30548  
Phone (706) 654-3677  
Fax (706) 654-3662

## DESCRIPTION

MICROSILICA MORTAR is a blend of Portland cement, graded silica sand, fibers and silica fume. The mortar may be hand or spray applied. A nominal thickness of 1/4" up to 2". Thicker applications can be achieved by applying in successive lifts. Uses include repairing concrete walls, ceilings, lining brick or concrete manholes and lift stations and horizontal pipe repair. Microsilica Mortar provides an extremely dense matrix and will accept coatings at earlier ages than typical Portland cement repair products. This product contains a migrating corrosion inhibitor.

## SURFACE PREPARATION

Remove all loose concrete, brick or mortar from affected area by mechanical means. Surfaces shall be free of paints, oils, dirt, dust, curing compounds, sealers, form release agents or any material that would prevent mortar from coming into contact with the open pores of the concrete. Create a minimum surface profile for the system specified in accordance with the methods described in ICRI No. 03732 to achieve profile CSP-3 to CSP-9. Shot blasting, sandblasting, chipping and high pressure water blasting are all excellent surface preparation methods. Dampen area to achieve a saturated, surface dry condition (SSD). Leaving no puddles.

## MIXING & APPLICATION

NOTE: [The material will flash set if contaminated with calcium aluminate cement.] Make sure all equipment for mixing, pumping, etc. are free from any calcium aluminate cement or products that contain calcium aluminate cement. Begin by adding 1 gallon clean water to mixing vessel and then add 1 bag (60#) Microsilica Mortar. Adjust water as needed (up to 1.25 gallons) to provide proper consistency for placing by hand or pump sprayer. Apply in successive

lifts to desired thickness. Use brush, float or trowel to achieve desired texture.

## CURING

Damp curing or use of a curing compound, that complies with ASTM C-309, may be necessary to prevent rapid drying of mortar. Curing compounds may need to be removed prior to coating. Replace manhole cover as soon as troweling is finished.

## LIMITATIONS

Ambient and surface temperatures must be 38° F and rising during application. Protect from rain until initial set has been achieved. To avoid flash setting, Do Not contaminate Silatec MSM with Cemtec Hydraulic cement, Rapid Cure Vertical or Silatec CAM.

Minimum thickness: ¼ inch

Maximum thickness: 4 inches in successive applications

## STORAGE & HANDLING

**Shelf life:** 12 months in the original unopened container.

**Storage:** Store in a dry area away from direct sunlight. The product should be conditioned to between 40° F and 95° F before use.

## PRECAUTIONS

Contains Portland cement-avoid eye contact or prolonged contact with skin, Wash thoroughly after handling. In case of eye contact, flush with water for at least 15 minutes. Consult a physician immediately. Keep out of reach of children. Contains free silica- DO NOT breathe dust. May cause delayed lung injury. Follow OSHA safety and health standards for crystalline silica (quartz). See material safety data sheet for detailed information.

**Spills:** Collect in appropriate container. Uncured material may be removed with water.

**Disposal:** Dispose of in accordance with local, state or federal regulations.

## PACKAGING

60 lb. / 27 kg multiwall bags.



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## TECHNICAL DATA

### COMPRESSIVE STRENGTH

ASTM C-109

24 Hr. 4310 PSI  
7 Day 6000 PSI  
28 Day 10000 PSI

### SHRINKAGE

ASTM 596

28 Day (0.001)

### BOND STRENGTH

ASTM C-882 (modified)

28 Day 2500 PSI

### FLEXURAL STRENGTH

ASTM C-293

24 Hour 720 PSI  
7 Day 850 PSI  
28 Day 1695 PSI

### SPLITTING TENSILE

ASTM C-496

24 Hour 420 PSI  
28 Days 805 PSI

### CHLORIDE PERMEABILITY

ASTM C-1202

28 Day 205 Coulombs

### MODULUS OF ELASTICITY

ASTM 469-02

24 Hour 3,433,333  
28 Day 4,533,333

### FREEZE/THAW

ASTM C-666

300 cycles – No Damage

Unit Weight 128.3 PCF