



MS Gunnite

High Strength, Microsilica Reinforced Gunnite

DESCRIPTION

MS Gunnite is a one component, dry process shotcreting repair mortar designed of Portland cements, fine aggregates, microsilicas and proprietary admixtures. **MS Gunnite** provides maximum strength, high density, low rebound and low sag properties for interior or exterior machine-applied concrete restoration and repairs. Also available with poly fibers.

USES

MS Gunnite is ideal for use on:

- Rock stabilization projects
- Pool construction
- Parking decks
- Tunnels
- Dam repair
- Retaining walls
- Bridge structures
- Water treatment plants
- Piers and docks

BENEFITS

- Durable: Provides long lasting repairs
- Vertical and overhead applications
- Resistant: Withstands freeze/thaw cycles
- Impermeable: Improved resistance to chloride intrusion
- Performance: Reduced rebound allows for thicker layers in one lift
- Quality: Reduces sagging and slouching
- Non-corrosive, non-metallic
- Consistent: Strict Quality Control testing and standards

SURFACE PREPARATION

All surfaces in contact with **MS Gunnite** shall be free of dirt, oil, grease, laitance and other contaminants that may act as bondbreakers. All unsound concrete should be removed to ensure a good bond. ACI recommends that the area to be patched should be saturated for 24 hours before placement. Remove any standing water. Surface should be saturated, surface dry (SSD). Always apply a test patch. Maintain contact areas between 45°F (7°C) and 90°F (32°C) prior to repair and during initial curing period.

MIXING

MS Gunnite is designed to be used with dry process equipment and should be mixed directly at the gun. Adjust water at the nozzle for required consistency.

PHYSICAL PROPERTIES

Compressive Strength (ASTM C-109*)

SET	1 DAY	3 DAYS	7 DAYS	28 DAYS
A NORMAL	1,800 psi (12.40 MPa)	2,500 psi (17.23 MPa)	3,100 psi (21.36 MPa)	5,200 psi (35.83 MPa)

Rate of Set (ASTM C-266*)

INITIAL	FINAL
1:30	3:05

Bond Strength (ASTM C-882*)

AGE	PSI
7 DAYS	1,105
28 DAYS	1,705

*Notes: 100% of bond rupture was observed in the dummy sections of the specimen and are not at the point of bond interface.

Flexural Strength (ASTM C-78*)

AGE	BOND STRENGTH
7 DAYS	750 psi (5.17 MPa)
28 DAYS	1,300 psi (8.96 MPa)

(This test reflects a "wet process" mixture. Field results may vary due to a "dry process" application.)

*Notes: 73°F (22.8°C) 55% humidity
A = 4.0 qts

Packaging: 50 lb (22.7 kg) bag, 63 bags per pallet



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PLACING

MS Gunnite should be placed using established procedures according to ACI 506 "Recommended Practices for Shotcreting." Be sure not to over water. Material is best applied at an angle of 90° from a distance of 2'-6' from the area of application. **MS Gunnite** can be effectively applied at depths of 1/2" - 6" in one lift. If multiple lifts are necessary, score surface to a rough texture and apply second lift after first lift has hardened.

FINISHING & CURING

Follow standard ACI curing practices. Exposed surfaces should be cured with a membrane forming curing compound such as **US SPEC Maxcure Resin Clear, Hydrasheen 15%** or **Hydrasheen 30%**.

STORAGE

Normal cement storage and handling practices should be observed. Store material in an interior, cool, dry place. Shelf life is one year in original, unopened container.

LIMITATIONS

In addition to limitations already mentioned, please note the following. Do not apply when temperature is below 40°F (4°C) or when the temperature is expected to fall below 40°F within 48 hours. Do not apply over surfaces that are frozen or contain frost. Do not apply over any active faults or cracks in the substrate without addressing any movement that may occur. Allow concrete to fully cure for 28 days before use of this product. All repairs should have a minimum depth of 1/2". Normal conditions working time is 20 minutes. Setting time will speed up in hot weather and slow in cold weather. For hot and cold weather applications, contact your US SPEC manufacturer's representative.

REGULATORY

Read and follow application information, precautions and Material Safety Data Information.

Right-to-know

This product contains Portland Cement (CAS#65997-15-1) and Crystalline Silica (CAS# 14808-60-7)

HMIS

Health 1, Fire 0, Reactivity 0

Prop 65

Warning! This product contains Crystalline Silica, a chemical known to the State of California to cause cancer or reproductive toxicity.

VOC Content

0 g/L

CAUTION

EYE AND SKIN IRRITANT

Contains Portland Cement (CAS# 65997-15-1) and Crystalline Silica (CAS# 14808-60-7). Do not allow contact with eyes or skin. Avoid breathing dust - silica may cause serious lung problems. There is limited evidence silica is a carcinogen. The use of gloves, goggles, dust masks and other protective clothing is recommended. If cement or sand particles get into eyes, rinse immediately with clean water and seek prompt medical attention.

TECHNICAL SERVICE

US MIX Co.

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Web Site: www.usspec.com

NOTICE OF LIMITED WARRANTY US MIX Co. (manufacturer) warrants to buyer that this product at the time and place of shipment is of good quality and conforms to the manufacturer's specifications in force on the date of manufacture when used in accordance with the instructions hereon. Manufacturer cannot warrant or guarantee any particular method of use, application or performance of the product under any particular condition. This limited warranty cannot be extended or amended by manufacturer's sales people, distributors or representatives or by any sales information, specifications of anyone other than the manufacturer. Liability under this warranty is expressly limited to refund of the purchase price.

LIMITATION OF WARRANTIES AND LIABILITY Buyer assumes all risks associated with the use of this product. Manufacturer expressly disclaims all warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose and all other warranties otherwise arising by operation of the law, course of dealing, custom, trade or otherwise. Buyer's exclusive remedy if this product is proven to be defective is limited to refund of purchase price by the manufacturer. Refund shall only be available if the buyer notifies manufacturer in writing within thirty days following discovery of any defect. Written notice shall be forwarded to US MIX Co. at 112 South Santa Fe Drive, Denver, Colorado 80223. No claim can be made twelve months after purchase of the product. Twelve months after the purchase manufacturer's duties with respect to the product and limited warranty shall be presumed to have been satisfied. Manufacturer in no event is liable for consequential damages.

Yield: 50 lbs (22.7 kg) will fill approximately 0.43 ft³ (0.012 m³) when 4.0 qts mixing water is used.