



# EUCOSHOT F

## SILICA FUME MODIFIED SHOTCRETE WITH MICRO FIBERS

### PACKAGING

50 lb (22.7 kg) bag

Code: 105F 50

3,300 lb (1,500 kg) bulk bag

Code: 105F 33

### APPROXIMATE YIELD

**50 lb (22.7 kg) unit:** 0.42 ft<sup>3</sup> (0.012 m<sup>3</sup>)  
per unit when mixed with 2 to 2.4  
quarts (1.9 to 2.3 L) of potable water.

### MINIMUM/MAXIMUM APPLICATION THICKNESS

Typically 1/2 to 6 inches (13 to 152 mm)  
per lift

### CLEAN UP

Clean tools and equipment with water  
before the material hardens.

### SHELF LIFE

1 year in original, unopened package

### DESCRIPTION

EUCOSHOT F is a microsilica modified, one component, shotcrete material that incorporates a 1/4" (6 mm) polypropylene micro-fiber. This cement based, modified mortar is designed for use on vertical and overhead surfaces by dry shotcrete (gunite) application or by mixing with water and applying as a wet-mix shotcrete. EUCOSHOT F is specially formulated for interior or exterior uses.

### PRODUCT CHARACTERISTICS

#### FEATURES/BENEFITS

- One component material-ready to use with only the addition of water
- Helps protect rebar and welded wire mesh from corrosion
- Low chloride salt permeability
- Excellent freeze/thaw resistance
- Sulfate resistant
- Low shrinkage properties
- High abrasion resistance

#### PRIMARY APPLICATIONS

- Gunite projects
- Utility structures
- Tunnels
- Mining applications

#### APPEARANCE

EUCOSHOT F is a free flowing powder as packaged. The final finish appearance can be any texture consistent with that expected from sprayed concrete.

## TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Values
ASTM C109 2" (50 mm) cubes	Compressive Strength	1 day . . . . . 3,500 psi (24 MPa) 3 days . . . . . 5,000 psi (34 MPa) 7 days . . . . . 7,000 psi (48 MPa) 28 days . . . . . 9,500 psi (65 MPa)
ASTM C348M	Flexural Strength	1 day . . . . . 550 psi (3.8 MPa) 7 days . . . . . 775 psi (5.3 MPa) 28 days . . . . . 1,100 psi (7.6 MPa)
ASTM C882M	Shear Bond Strength	3 days . . . . . 2,000 psi (14 MPa) 7 days . . . . . 2,500 psi (17 MPa) 14 days . . . . . 2,800 psi (19 MPa) 28 days . . . . . 3,000 psi (21 MPa)
Germann Test	Direct Tensile Bond	14 days . . . . . 350 psi (2.4 MPa) 28 days . . . . . 425 psi (2.9 MPa)
ASTM C157 50% RH	Length Change	2 days . . . . . - 0.003% 7 days . . . . . - 0.003% 14 days . . . . . - 0.007% 21 days . . . . . - 0.025% 28 days . . . . . - 0.033%
ASTM C1202	Rapid Chloride Permeability	7 days . . . . . 4,000 coulombs 14 days . . . . . 1,600 coulombs 21 days . . . . . 975 coulombs 28 days . . . . . 575 coulombs
ASTM C666 Procedure A	Freeze/Thaw Resistance	300 cycles . . . . . > 98% RDM
ASTM C672	Scaling Resistance (Visual Rating)	10 cycles . . . . . 0 20 cycles . . . . . 0 30 cycles . . . . . 0 50 cycles . . . . . 0

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## DIRECTIONS FOR USE

**Dry Shotcrete/Gunite:** Set up dry process equipment in an area convenient to the placement site. Add EUCOSHOT F powder directly to the gun. If dusting is objectionable, material may be pre-dampened prior to adding to gun. Gauge water at the nozzle and adjust to the desired consistency.

**Placing Dry Shotcrete/Gunite:** In general EUCOSHOT F should be applied in accordance with the recommendations of ACI 506R "Guide to Shotcrete". Pay special attention to the angle of the application (i.e. 90°) and distance from the substrate, normally 2 ft (0.6 m) to 6 ft (1.8 m). Typical application depths range from 1/2" to 6" (13 to 152 mm). If placement at a depth greater than 6" (152 mm) is required, cross hatch the surface of the initial layer. After the surface has sufficiently hardened additional layers may be placed.

**Mixing Wet Shotcrete:** Add EUCOSHOT F to water in the mixer drum (35 gallons [132 L] of water per 3,300 lb [1,500 kg] bulk bag of EUCOSHOT F), mix for 2 minutes and add remaining water (up to 5 gal [18.9 L]). EUCON 37 can be used to reduce the amount of water required.

**Placing-Wet Shotcrete:** In general EUCOSHOT F should be applied in accordance with the recommendations of ACI 506R "Guide to Shotcrete".

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## PRECAUTIONS/LIMITATIONS

- Do not allow applied shotcrete to freeze until the material has reached a minimum of 500 psi (3.5 MPa) compressive strength.
- When necessary, follow the recommendations in ACI 305R "Guide to Hot Weather Concreting" or ACI 306R "Guide to Cold Weather Concreting".
- Use only potable water at the nozzle.
- Minimum application thickness is 1/2" (13 mm).
- Minimum surface and ambient temperatures are 40 °F (4 °C) and rising at the time of application.
- For optimum results, condition material to 65 to 85 °F (18 to 29 °C).
- Store product in a dry place.
- In all cases, consult the Safety Data Sheet before use.

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