



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 ft³ (0.012 m³)
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 cycles0 20 cycles0 30 cycles0 50 cycles0

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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".

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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