# **EUCOSHOT SUPREME**

# **LATEX MODIFIED SHOTCRETE**



#### **PACKAGING**

50 lb (22.7 kg) bag Code: 105S 50

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

Code: 105S 99

### **APPROXIMATE YIELD**

**50 lb (22.7 kg) unit:** 0.42 ft³ (0.012 m³) per unit when mixed with 2 to 2.4 qt (1.9 to 2.3 L) of potable water. Yield will vary according to the amount of water added during the shotcreting operation.

# MINIMUM/MAXIMUM APPLICATION THICKNESS

Typically 1/2 to 6 inches (1.2 to 15 cm) per lift

## **CLEAN UP**

Clean tools and equipment with water before the material hardens.

#### **SHELF LIFE**

1 year in original, unopened package

# **DESCRIPTION**

EUCOSHOT SUPREME is a latex modified, one component, shotcrete material. 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 SUPREME 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
- Rehabilitation Projects

#### **APPEARANCE**

EUCOSHOT SUPREME 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 3,250 psi (22 MPa) 3 days 3,700 psi (25 MPa) 7 days 5,350 psi (37 MPa) 28 days 8,500 psi (57 MPa)
ASTM C348M	Flexural Strength	1 day 635 psi (4.4 MPa) 7 days 900 psi (6.2 MPa) 28 days 1,300 psi (9.0 MPa)
ASTM C882M	Shear Bond Strength	3 days 2,200 psi (15 MPa) 7 days 2,650 psi (18 MPa) 14 days 2,900 psi (20 MPa) 28 days 3,100 psi (21 MPa)
Germann Test	Direct Tensile Bond	14 days 380 psi (2.6 MPa) 28 days 435 psi (3.0 MPa)
<b>ASTM C157</b> 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
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

#### **DIRECTIONS FOR USE**

**Dry Shotcrete/Gunite:** Set up dry process equipment in an area convenient to the placement site. Add EUCOSHOT SUPREME 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 SUPREME 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" (12 to 150 mm). If placement at a depth greater than 6" (150 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 SUPREME to water in the mixer drum (35 gallons [130 L] of water per 3,300 lb [1,500 kg] bulk bag of EUCOSHOT LR), mix for 2 minutes and add remaining water (up to 5 gal [20 L]). EUCON 37 can be used to reduce the amount of water required.

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

#### PRECAUTIONS/LIMITATIONS

- Do not use EUCOSHOT SUPREME on a negative side water pressure application.
- Do not allow applied shotcrete to freeze until the material has reached a minimum of 1,000 psi (7 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 (5 °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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