THE EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD • Cleveland, OH 44110
(216) 531-9222 • (800) 321-7628 • FAX (216) 531-9596
www.euclidchemical.com

◆ENG.SPECS ◆CATALOG INDEX
◆MSDS ◆SECTION INDEX
◆FRENCH ◆PRINT
◆SPANISH ◆EXIT CATALOG

VERTICOAT SUPREME

◆ ◆ ◆ ◆ ◆ ◆

ONE PART, MODIFIED OVERHEAD REPAIR

VERTICOAT SUPREME is a one component, microsilica and latex modified, nonsag repair mortar. This cement based product is designed for trowel applied vertical and overhead repairs requiring high performance.

PRIMARY APPLICATIONS

- Resurfacing damaged or deteriorated concrete
- Vertical and overhead repairs
- Parking and bridge structures
- Parapet walls
- Marine structures
- Tunnels and dams
- Above and below grade applications

FEATURES / BENEFITS

- One component for easy mixing and handling
- Excellent freeze/thaw resistance for difficult climates
- Low permeability helps protect rebar from corrosion
- High bond strength provides excellent adhesion
- Normal setting times increase workability and reduce waste
- Microsilica and latex modified for high in place performance

SPECIFICATIONS / COMPLIANCES

- VERTICOAT SUPREME attains a bond strength meeting the requirements of ASTM C 1059-86, Type II systems

PACKAGING / YIELD

VERTICOAT SUPREME is packaged in 50 lb (22.7 kg) moisture resistant bags. Yield is 0.48 ft^3 (0.014 m^3) per bag when mixed with 2.75 qt (2.6 liter) of water.

COVERAGE

VERTICOAT SUPREME will cover approximately 11.5 ft^2 (1.1 m^2) when placed at an average depth of 1/2" (13 mm). VERTICOAT SUPREME may be placed at thicknesses ranging from 1/4 to 2" (6 mm to 50 mm) per lift.

TECHNICAL INFORMATION

Typical Engineering Data

Compressive Strength
ASTM C 109 modified, 2" (50 mm) cubes

1 day	2,500 psi (17.2 MPa)
3 days	4,000 psi (27.6 MPa)
7 days	5,500 psi (37.9 MPa)
28 days	6,200 psi (42.7 MPa)
56 days	6,700 psi (46.2 MPa)
6 months	7,200 psi (49.6 MPa)

Bond Strength (shear) ASTM C 882 (modified)
Bond Coat

1 day	1,000 psi (6.9 MPa)
3 days	1,500 psi (10.3 MPa)
7 days	1,900 psi (13.1 MPa)
28 days	2,100 psi (14.5 MPa)
56 days	2,700 psi (18.6 MPa)

Direct Tensile Bond Strength

1 day	175 psi (1.2 MPa)
7 days	250 psi (1.7 MPa)
28 days	310 psi (2.1 MPa)

Flexural Strength ASTM C 348

1 day	400 psi (2.8 MPa)
3 days	500 psi (3.4 MPa)
28 days	650 psi (4.5 MPa)
56 days	800 psi (5.5 MPa)

Linear Shrinkage ASTM C-157
50% R. H. @ 73°F (23°C)

3 days	>0.01%
7 days	>0.01%
14 days	-0.02%
28days	-0.04%
56days	-0.05%

Sulfate Resistance ASTM C-1012

28days	+0.005%
56days	+0.009%

Chloride Permeability ASTM C-1202

7days	1,000 coulombs
28days	900 coulombs
56days	700 coulombs

Freeze/Thaw Resistance, ASTM C-666
Procedure A @ 500 cycles
Relative Durability Modulus.....100%
Working Time: 30 minutes
Set Times 70°F (21°C) ASTM C-266
Initial Set: 1 hour
Final Set: 2 1/2 hours
Unit Weight: 115 lb/ft^3 (1836 kg/m^3)

Appearance

VERTICOAT SUPREME is a free flowing powder designed to be mixed with water. After mixing and placing, the color may initially appear darker than the surrounding concrete. While this color will lighten up substantially as the VERTICOAT SUPREME cures and dries out, the repair may always appear somewhat darker than the surrounding concrete.

The final finish can be any texture consistent with that expected from concrete and should match the surrounding concrete.

DIRECTIONS FOR USE

Surface Preparation-The concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a bushhammer, sandblaster or jackhammer which will give a surface profile of a minimum 1/8" (3 mm) and expose the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing. **The concrete surface must be dampened prior to application of the bond coat.**

Exposed Reinforcement Steel-Exposed rebar may be treated with an anti-corrosion coating such as CORR-BOND or EUCO #452 LV epoxy. Remove all loose rust and scaling, preferably by sandblasting to white metal prior to coating the rebar.

Bonding-After the surface has been prepared and predampened, all areas must be primed with CORR-BOND or with a bond coat of VERTICOAT SUPREME. Produce a bond coat of this product by mixing the material as indicated below and then add an additional 1 to 1.5 pint (0.5-0.75 liter) of water to the mix. Brush the bond coat on to the prepared and predampened concrete. Apply VERTICOAT SUPREME before the bond coat has dried.

Mixing-Product is normally mixed with a drill and "jiffy" type mixer. Use a paddle type mortar mixer for large placements. All materials should be in the proper temperature range of 60^{O}F (16^{O}C) - 90^{O}F (32^{O}C). Note: Do not mix more material than can be placed within 20 minutes.

Add the appropriate amount of water for the batch size [2.5-3.0 qt (2.4-2.8 liter)/bag] and then add the dry product. Mix 3-5 minutes. The mixed product should be quickly transported to the repair area and placed immediately.

Placement- Product should be placed in lifts 1/4 to 2" (6 to 50 mm) thickness. Trowel into place and allow to stiffen before the next lift. If additional lifts will be placed after the product has hardened, cross hatch the surface of the previous lift to provide for a secure bond for the next lift.

Finishing-Finish the repair material to the desired texture and/or to match the surrounding concrete. Do not add additional water to the surface during the finishing operation. If additional liquid is required, use EUCOBAR finishing aid.

Curing & Sealing-Proper curing procedures are important to ensure the durability and quality of the repair. To prevent drying surface cracking, cure VERTICOAT SUPREME with a high solids curing compound, such as SUPER AQUA-CURE VOX or SUPER DIAMOND CLEAR VOX. Note: Do not use a solvent based curing compound on this product. In hot, windy or direct sunlight situations, apply a second coat of curing compound after the initial coat is dry.

If a curing compound is not desired, cover with polyethylene sheeting for a minimum of three (3) days.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

Shelf life is 2 years in original, unopened package.

PRECAUTIONS / LIMITATIONS

- Do not allow repairs to freeze until the material has reached a minimum of 1000 psi (7 MPa) compressive strength [approximately 3 days at 40^{O}F (4^{O}C)].
- In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices.
- Use only potable water for mixing.
- Minimum application thickness 1/4" (6 mm).
- Minimum surface and ambient temperature 45^{O}F (7^{O}C) and rising at time of application.
- For optimum results, condition material to 65-85^{O}F (18-29^{O}C).

Registered Company

Form Verticoat Supreme-8.00