



THE EUCLID CHEMICAL COMPANY

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

CONCRETE-TOP SUPREME

◆ ◆ ◆ ◆ ◆ ONE PART, MODIFIED DECK REPAIR

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CONCRETE-TOP SUPREME is a latex and microsilica modified cementitious mortar designed for use as a concrete repair mortar at thicknesses of 3/8"-2" (10 mm-50 mm). This product is a one part formula which incorporates powder latex technology. It provides excellent durability under freeze-thaw cycling as well as reducing ingress by water and de-icing salts. CONCRETE-TOP SUPREME offers normal set times and a mid range slump for easy workability.

PRIMARY APPLICATIONS

- Parking decks • Floors
- Docks • Marine structures
- Curbs and gutters • Ramps
- Pavements & walkways • Joints

FEATURES/BENEFITS

- Provides a strong, wear resistant topping
- Excellent durability under freeze/thaw cycling
- Resists penetration of water and de-icing salts for good substrate protection
- Excellent bond to properly prepared sound concrete
- Easy to use one part system
- Suitable for both indoor and outdoor use
- High slump formula for easy handling
- Consistent working time in cold & hot weather

SPECIFICATIONS / COMPLIANCES

- CONCRETE-TOP SUPREME meets or exceeds the bond strength requirements of ASTM C-1059-86, Type II

PACKAGING / YIELD

CONCRETE-TOP SUPREME is packaged in 50 lb (22.7 kg) moisture resistant bags. When mixed with 2.6 quarts (2.4 liter) of water, yield is 0.42 ft³/bag (0.012 m³). Typical water requirement is 2.5 - 3.0 quart (2.4 - 2.8 liter)/bag. A unit of material may be extended with 15 lb (6.8 kg) of 3/8" (9.5 mm) pea gravel. This will yield 0.55 ft³ (0.016 m³) and may be used for overlay placements that exceed 2" (50 mm) in depth. Product strength may be reduced 10-15% with aggregate extension.

TECHNICAL INFORMATION

Engineering Data **

Compressive Strength

ASTM C-109, 2" (50 mm) cubes	
12 hours	1,000 psi (6.9 MPa)
18 hours	3,200 psi (22.0 MPa)
1 day	4,000 psi (27.6 MPa)
3 days	5,600 psi (38.6 MPa)
7 days	7,600 psi (52.4 MPa)
28 days	10,200 psi (70.3 MPa)
56 days	11,000 psi (75.8 MPa)

Flexural Strength ASTM C-348

1 day	750 psi (5.2 MPa)
3 days	850 psi (5.9 MPa)
28 days	1,200 psi (8.3 MPa)
56 days	1,250 psi (8.6 MPa)

Linear Shrinkage ASTM C-157

50% R. H. @ 73°F (23°C)

3 days	-0.02%
7 days	-0.04%
14 days	-0.07%
28 days	-0.07%
56 days	-0.08%

Bond Strength ASTM C-882 (modified)

1 day	1,200 psi (8.3 MPa)
7 days	2,300 psi (15.8 MPa)
28 days	2,500 psi (17.2 MPa)

Sulfate Resistance ASTM C-1012

7 days	+0.020%
28 days	+0.028%
56 days	+0.028%

Chloride Permeability ASTM C-1202

7 days	4,000 coulombs
28 days	1,300 coulombs
56 days	900 coulombs

Freeze/Thaw Resistance

ASTM C-666 Procedure A

500 Cycles: 100% relative dynamic modulus

Working Time: 30 minutes

Initial Set: 1 hour

Final Set: 2 1/2 hours

Unit Weight: 135 lb/ft³ (2160 kg/m³)

** Actual performance may vary depending upon water content.

Appearance

CONCRETE-TOP SUPREME is a free flowing powder as packaged. After mixing and placing, the color may initially appear darker than the surrounding concrete. The color will lighten up substantially as the CONCRETE-TOP SUPREME cures.

This product is designed for finishing with a float or broom appearance. A steel trowel finish may be applied but timing of the final trowel is critical.

DIRECTIONS FOR USE

Surface Preparation-New concrete must be a minimum of 28 days old if an epoxy adhesive will be used to bond the topping. If a product bond coat is used, the concrete must be a minimum of 3 days old.

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 scabber, bushhammer, shotblaster, scarifier or hydroblaster 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 (pressure washing, etc.)

The concrete surface must be dampened prior to application of a product 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, prime all areas with either a bond coat of CONCRETE-TOP SUPREME, a bond coat of cement and SBR LATEX, or an epoxy bonding agent such as CORR-BOND or EUCO #452 Epoxy.

Bond Coat-For a bond coat of CONCRETE-TOP SUPREME, mix the product as instructed below but add an additional pint (0.5 liter) of water per bag. Broom the bond coat on to the prepared and predampened concrete. Apply the CONCRETE-TOP SUPREME before the bond coat has dried.

Epoxy Primer-Use EUCO #352 (LV or MV) epoxy adhesive for exterior repairs. Use EUCO #452 (LV or MV) epoxy adhesive for interior repairs.

Note: For extended working time, epoxy type bond strengths, and/or corrosion protection of reinforcing steel, use CORR-BOND cement/epoxy compound as a bonding agent and a protective coating for rebar. **Follow surface preparation, mixing and placement instructions on the respective bonding agent's product technical data sheet.**

Mixing-Small quantities of CONCRETE-TOP SUPREME may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for large jobs. All material should be in the proper temperature range of 40°F (4°C) - 100°F (38°C). Add the appropriate amount of

water [2.5-3.0 qt.(2.4-2.9 liter)/bag] for the batch size and then add the dry product. Mix for 3-5 minutes.

Placement-Discharge material from mixer and place on to floor. For patching, spread with a trowel, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete.

On large areas, use screed strips with vibratory screeding to level.

Finishing-Finish the repair material to the desired texture. Do not add additional water to the surface during the finishing operation. If additional liquid is required, use EUCOBAR finishing aid. For a hard, flat troweled surface, delay finishing until the product is near final set (approx. 3 hours) to reduce the risk of blistering during troweling.

Curing and Sealing-Proper curing procedures are important to ensure the durability and quality of the repair. To prevent surface cracking, cure the floor 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.

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

NOTE: Always re-establish floor and slab joints when using this product as an overlay

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.
- In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices.
- Use only potable water for mixing.
- Do not use material at temperatures below 45°F (7°C).
- No heavy traffic until the product has cured.
- Mixing partial bags may yield variable results, always mix full units.
- Store product in a dry place.
- Always re-establish floor and slab joints when using this product as an overlay.

Form Concrete-Top Supreme-7.99

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