HORIZONTAL REPAIR

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CONCRETE-TOP SUPREME

SINGLE COMPONENT CEMENTITIOUS TOPPING & REPAIR MORTAR

EUCLID CHEMICAL

PACKAGING

50 lb (22.7 kg) bag
Code: 160C 50

APPROXIMATE YIELD

50 lb (22.7 kg) unit: 0.40 ft³ (0.011 m³) per unit when mixed with 2.5 qt (2.4 L) of potable water.

Extended: 0.47 ft³ (0.013 m³) per unit when extended with 15 lbs (6.8 kg) of pea gravel. See full extending instructions under "Directions for Use".

MINIMUM/MAXIMUM APPLICATION THICKNESS

Neat: 3/8 to 2 inches (1 to 5 cm)
Extended: 1 to 6 inches (2.5 to 15 cm)

CLEAN UP

Clean tools and equipment with water before the material hardens.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS AND COMPLIANCES

- Canadian Food Inspection Agency, MTQ, MTO

DESCRIPTION

CONCRETE-TOP SUPREME is a latex and microsilica modified, cementitious mortar designed for use as a concrete repair mortar at thicknesses of 3/8 to 2 inches (9.5 to 50 mm). This product is a single-component formula which incorporates a powder latex technology, providing protection from corrosion and excellent durability under freeze-thaw cycles as well as reducing ingress by water and de-icing salts.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Provides a strong, wear resistant overlay
- Contains an integral corrosion inhibitor
- Excellent bond to properly prepared sound concrete
- Compatible with galvanic anodes
- Suitable for both interior and exterior use
- Formulated for easy placement

PRIMARY APPLICATIONS

- Parking decks
- Pavements
- Warehouse floors
- Light industrial floors
- Shoulder repairs
- Ramps
- Walkways

COMMON METHODS

- Typically finished by trowel, broom, or float

PHYSICAL PROPERTIES

Single component
Mixes with 2.0 to 3.0 quarts (1.9 to 2.8 L) of potable water per 50 lb (22.7 kg) bag/pail

Working Time:	30 minutes
Initial Set:	1 hour
Final Set:	3 hours
Unit Weight:	140 lb/ft³ (2243 kg/m³)

Physical properties based on measurements at 70 °F in laboratory conditions.

The following coverage rates are approximations based on yield of a 50 lb unit mixed at standard consistency.

Application Thickness (inches)	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2
Coverage Area per Unit (ft²)	12.8	9.6	7.7	6.4	4.8	3.8	3.2	2.7	2.4

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 . . . . . 4,000 psi (27.6 MPa) 7 days . . . . . 7,000 psi (48.3 MPa) 28 days . . . . . 9,000 psi (62.1 MPa) 56 days . . . . . 9,500 psi (65.5 MPa)
ASTM C348	Flexural Strength	7 days . . . . . 1,200 psi (8.3 MPa) 28 days . . . . . 1,250 psi (8.6 MPa)
ASTM C157*	Linear Shrinkage	14 days . . . . . -0.10% 56 days . . . . . -0.13%
ASTM C1202	Chloride Permeability	28 days . . . . . .1,200 coulombs
ASTM C666 Procedure A	Freeze/Thaw Resistance	300 cycles . . . 92% relative dynamic modulus

*Based on initial length @ 24 hours; 50% RH @ 23 °C (73 °F)

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DIRECTIONS FOR USE

Surface Preparation: Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Mechanically abrade the surface to achieve a surface profile equal to CSP 5-7 in accordance with ICRI Guideline 310.2. Properly clean profiled area.

Priming and Bonding (Saw Cut and Chipped Out Repairs): Thoroughly clean any exposed reinforcing steel and apply DURALPREP A.C. to the concrete and the reinforcing steel within the repair area. Refer to the DURALPREP A.C. technical data sheet for full instructions. Alternatively, application of EUCOWELD 2.0 to a dry substrate or a scrub coat of [PRODUCT NAME] to the SSD concrete substrate may be used for bonding.

Priming & Bonding (Horizontal Toppings): For the best adhesion to concrete, use EUCOFLOOR EPOXY PRIMER seeded with sand as the bonding coat. Refer to the EUCOFLOOR EPOXY PRIMER technical data sheet for full instructions. Alternatively, application of EUCOWELD 2.0 to a dry substrate or a scrub coat of CONCRETE-TOP SUPREME to the saturated surface dry (SSD) concrete surface may be used for bonding. The topping material must be placed on the scrub coat before the scrub coat dries out.

Mixing: One 50 lb (22.7 kg) unit requires 2 to 3 qt (1.9 to 2.8 L) of potable water. All materials should be in the proper temperature range of 60 to 90 °F (15 to 32 °C). Single 50 lb (22.7 kg) units may be mixed with a drill and "jiffy" mixer. A paddle type mortar mixer may be used for large jobs. Add the appropriate amount of potable water to a clean mixing vessel, then gradually add the dry product. Do not add additional water or admixtures. Mix for 3 to 5 minutes. Do not retemper.

Extending Instructions (Optional): When extended, CONCRETE-TOP SUPREME may be applied in lifts of up to 6" (15 cm). One 50 lb (22.7 kg) unit may be extended by adding 15 lb (6.8 kg) of clean, SSD, 3/8" (9.5 mm) rounded pea gravel (#8, ASTM C33) to the mix. The pea gravel must be dense and non-absorptive per ASTM C127 and non-reactive (ASR) per ASTM C227, C289 and C1260.

Placement: Ambient and surface temperatures should be at least 45 °F (7 °C). Working time at 72 °F (22 °C) is approximately 30 minutes. To make repairs, spread with a float, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. When used as an overlay, use screed strips with a vibratory screed to level. Do not use CONCRETE-TOP SUPREME for repairs less than 3/8" (9.5 mm) deep. If placing thicker than 2" (5 cm), material should be extended or placed in multiple lifts. If multiple lifts are to be applied, score the previous lift after placing to provide a suitable surface for mechanically bonding subsequent lifts.

Finishing: This product is designed to be finished with a float or broom texture. A steel trowel finish may be applied but timing of the final trowel is critical. For a hard, flat troweled surface, delay finishing until the product is near final set to reduce the risk of blistering during troweling. Do not add water to the surface during the finishing operation. When placing under hot and windy conditions, the use of EUCOBAR evaporation retarder is recommended to prevent the loss of surface moisture. Always re-establish floor and slab joints when using this product as an overlay.

Curing and Sealing: Proper curing procedures are important to ensure the durability and quality of the repair. To mitigate surface cracking, cure the material with a high solids curing compound, such as SUPER AQUACURE VOX or SUPER DIAMOND CLEAR VOX. If a curing compound is not desired, cover with quality plastic sheeting for a minimum of 3 days. Do not use a solvent based curing compound on this product.

PRECAUTIONS/LIMITATIONS

- Store in a dry place.
- Always mix full units.
- Do not use material at temperatures below 45 °F (7 °C) or above 100 °F (38 °C).
- Do not allow repairs to freeze until the material has reached a minimum of 1,000 psi (7 MPa) compressive strength.
- Do not use DURALPREP A.C. as a bonding agent for toppings and overlays done with CONCRETE-TOP SUPREME.
- When necessary, follow the recommendations in ACI 305R "Guide to Hot Weather Concreting" or ACI 306R "Guide to Cold Weather Concreting".
- Do not use a solvent based curing compound on this product.
- In all cases, consult the Safety Data Sheet before use.

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