

DESCRIPTION

HCM-25 is a single component, polymer modified, cementitious mortar designed for resurfacing and structural repair as a standalone product or in conjunction with ECS Coatings line of primers and specialty coatings.

Reasonable variations can occur due to atmospheric and job site conditions.

Conforms to Modified ASTM C 928 R2

Freeze/Thaw Resistance ASTM C 666 Method "B"

After 300 cycles 1% loss due to slight scaling; no spalling

Average Scaling Resistance (ASTM C 672-98)

No. of cycles Rating Condition of surface

25 0 No scaling visible

Shear Bond Strength ASTM C 882

1 day 1,035 psi (7.1 MPa)

7 days 1,650 psi (11.4 MPa)

Flexural Strength ASTM C 348

1 day 1,142 psi (7.9 MPa)

28 days 1,180 psi (8.1 MPa)

PREPARATION

Adjoining surfaces must be sound, clean, free of loose or damaged concrete, dust, dirt and other contaminants that will interfere with bond. Completely expose and clean all reinforcing steel, ensuring a minimum clearance of 3/4" (19 mm) behind reinforcing steel. Perform reinforcing steel preparation in accordance with ICRI Technical Guidelines No. 03730. Abrade concrete to obtain a rough surface promoting adhesion. The area should be saturated surface dry (SSD) with no standing water on the surface.

MIXING

HCM-25 requires 4 to 5 quarts (3.8 to 4.7 L) of water per 50 lbs. (22.7 kg) of powder. Mix only the amount of material that can be placed in 20 minutes. Pour the required amount of potable water into a clean mixing container, then add the measured amount of HCM-25 while continuing to mix and blend thoroughly for 1-2 minutes to a lump free putty like consistency.

APPLICATION

Immediately apply the fresh mortar into the entire surface, forcing HCM-25 firmly into the previously

HCM-25 FEATURES

- Fast setting, low slump repair mortar that can be trowelled, shaped and shaved after taking an initial set
- Easy shaping and molding
- One component incorporating water activated polymer system
- Integrated corrosion inhibitor
- Can be applied overhead and vertically
- Apply from 1/4" to 1" in thickness
- Tenacious bond to substrates
- Normal working time of 25 minutes

USES

- Used interior or exterior, above or below grade, on vertical, overhead and horizontal surfaces
- Suited for patching distressed horizontal, vertical and overhead surfaces including precast products, concrete pipe, and other water and wastewater infrastructure
- Used to fill honeycombs, spalls or irregularities

WORKING TIME

20 minutes at 70° F (21° C)

Set Time ASTM C 191 @ 70° F (21° C)

Initial set Approx. 30 min.

Final set Approx. 60 min.

PHYSICAL PROPERTIES (1:1 BY VOL)

Compressive Strength ASTM C 928

3 hours 3,000 psi (20.7 MPa)

1 day 4,000 psi (27.6 MPa)

7 days 5,000 psi (34.5 MPa)

28 days 5,500 psi (37.9 MPa)

prepared area insuring full contact with all bonding surfaces. Slightly overfill the area. After initial set, using a trowel, finish HCM-25 to the desired final profile. In deeper areas, additional lifts can be made after each previous lift has reached initial set. Score and roughen the original lift layer to improve bond between applications.

CLEAN UP

Use water to clean all tools immediately after use.

BEST PERFORMANCE

- Do not bridge moving cracks, control or expansion joints
- Protect from conditions that cause early water loss: such as wind, sunlight, heat, etc.
- The minimum applications thickness is 1/4" (6 mm)
- Do not overwork, re-temper, over water or add Admixtures

COLOR

Medium Gray (only)

CURING

Cure in accordance with American Concrete Institute procedure number 308. Protect from high temperature, high wind, low humidity, and direct sun causing rapid drying. Do not apply to frozen or frost covered areas. The minimum ambient and surface temperatures should be 40° F (4° C) at time of application. Hot weather and conditions above 80° F (27° C) will reduce working time and accelerate set, while cold temperatures below 60° F (16° C) will have a retarding effect.

COVERAGE

One 50 lb. (22.7 kg) bag yields approximately 0.48 ft.3 (0.01 m³)

PACKAGING

50 lbs. (22.7 kg) moisture resistant bag

STORAGE

Always keep in a cool dry place unexposed to sunlight.

SHELF LIFE

One year when stored properly in original unopened container.

WARNING

This product contains Portland cement and silica sand. Avoid contact with eyes and skin. Do not take internally. Crystalline silica sand may cause serious lung problems. Avoid breathing dust and wear a respirator in dusty areas. Contact with wet unhardened concrete, mortar, cement or cement mixtures can cause skin irritation, severe chemical burns or serious eye damage. Wear waterproof gloves, a fully buttoned long-sleeved shirt, full-length trousers and tight fitting safety goggles. If you have to stand in wet product, wear waterproof boots high enough to keep product from getting inside. If working on hands and knees, wear kneepads. Indirect contact through clothing can be as serious as direct contact. Promptly, rinse out wet product from clothing.

KEEP OUT OF THE REACH OF CHILDREN AND ANIMALS.

This product contains a chemical known to the state of California to cause cancer. Consult Material Safety Data Sheet for further information.

FIRST AID

Eye Contact: Flood eyes with water for at least 15 minutes and consult a physician immediately.

DO NOT RUB EYES.

Skin Contact: Wash exposed skin area with soap and water. Consult a physician if irritation persists.

Inhalation: Remove to fresh air.

Ingestion: Immediately consult a physician.

For additional information, call ECS Coatings at 941-993-5923 or CHEMTREC at 800-424-9300 or 703-527-3887 outside of the USA. Refer to Material Safety Data Sheet (MSDS) for further information

ENVIRONMENTAL ADVISORY:

Uncured or crushed cured cement is an environmental hazard, which may adversely affect fish and wildlife. Dispose of construction debris containing cement, including empty bags, at a permitted municipal disposal firm. Do not use crushed concrete as a fill near an aquatic habitat.

LIMITED WARRANTY

ECS Coatings warrants that this product will be free from defects in material and workmanship, and will conform to specifications set forth in ECS Coatings product literature at the time of purchase. This warranty lasts for one (1) year when used as a stand alone product from the date of purchase. Any implied warranty of merchantability or fitness for a particular purpose is limited to the duration of this express warranty. This warranty applies only if the product is stored, used, applied and maintained in strict accordance with ECS Coatings specifications and instructions. The sole and exclusive remedy under this warranty shall be replacement of the defective product or refund of the purchase price, at ECS Coatings option. CONSEQUENTIAL, SPECIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY.