

CEILCOTE® 830 COROCRETE®

High grade epoxy novolac, trowel-applied flooring

DESCRIPTION:

The CEILCOTE® 830 COROCRETE® Flooring is a heavy duty, epoxy novolac flooring system that is designed to resist attack by aggressive chemicals such as concentrated sulfuric acid, and to withstand mechanical abuse.

CEILCOTE 830 COROCRETE Flooring is a 1/8" to 1/4" thick floor topping which is designed for either hand or power troweling. The finished surface is tight and non-porous, eliminating the need for topcoating.

Unique novolac technology permits the extended working time of the CEILCOTE 830 COROCRETE System, making this product user friendly, resulting in easier application and less waste.

TYPICAL USES:

- The protection of concrete against the attack of corrosive chemicals.
- Areas subjected to severe spillage, including:
 - Process areas.
 - Tank farms.
 - Flooring and pump pads.
 - Secondary containment areas.
 - Drum storage.

ADVANTAGES:

- Superior resistance to 98% Sulfuric Acid.
- Extended working time.
- Tough, durable system.
- Moisture tolerant cure.
- Seamless surface.
- Low odor.
- 100% solids.

COLORS:

Available in Gray, Tile Red

PHYSICAL PROPERTIES:

Generic Type

Epoxy Novolac

Volatile Organic Compounds (VOC)

0 lbs/gallon

Compressive Strength

ASTM C 579-82 9,000 to 10,000 psi (62 to 69 MPa)

Flexural Strength

ASTM C 580-85 4,000 to 5,000 psi (28 to 35 MPa)

Flexural Modulus

ASTM C 580-85 2.6 x 10⁶ psi (18 GPa)

Linear Shrinkage

ASTM C 531-85 4 x 10⁻⁴ in/in (cm/cm)

Taber Abrasion

ASTM D 4060-84 52 mg

Coefficient of Thermal Expansion

ASTM C 531-85 13 x 10⁻⁶ in/in/°F (23 x 10⁻⁶ cm/cm/°C)

Bond Strength to Concrete

ASTM D 4541, failure in concrete 450 psi (3.10 MPa)

Thin Film Blush

None

Flash Point

(Seta Flash)

- Liquid >200°F (93°C)
- Hardener >208°F (97°C)

Frequent or Severe Spills

150°F (66°C)

Occasional Splash/Spill

200°F (93°C)

Shelf Life

Shelf life for material is one year minimum, if kept tightly sealed.

COVERAGE:

Estimated:

- 70 to 80 ft²/unit (6.5 to 7.4 m²/unit) @ 1/4"
- 140 to 160 ft²/unit (13 to 15 m²/unit) @ 1/8"

MIXING RATIO:

1.6:1, Part A to Part B (by volume)

(Use CEILCOTE 810 COROCRETE Resin and CEILCOTE #12 Hardener.)

PACKAGING:

Available in US measured units.

CEILCOTE 830 COROCRETE 2.6 gal unit consists of:

- CEILCOTE 810 COROCRETE Resin
16.2 lbs. in a 3.5 gal pail
- CEILCOTE #12 Hardener
8.7 lbs. in a 1 gal pail
Type S-15 Powder
50 lb. (22.73 kg) bags
(Use 4 bags per 2.6 gal. unit)

HANDLING PROPERTIES:

(Approximate Time)	50°F (10°C)	73°F (23°C)	90°F (32°C)
Working Time	100 min	45 min	25 min
Time to Traffic*	48 hrs	24 hrs	16 hrs

* For concentrated sulfuric acid exposure information, consult Master Builders.

LIMITATION:

Do not apply CEILCOTE 830 COROCRETE material when the surface temperature is below 50°F (10°C) or above 110°F (43°C).

APPLICATION:

The following is abbreviated application information. Install only in accordance with complete instructions found in the current, published Master Builders Installation Procedure #3.143I.

SURFACE PREPARATION:

Abrasive blasting or scarification to remove laitance and surface contaminants is recommended. Concrete must be thoroughly cured, free of oils, curing solutions or mold release agents, dust and must be dry at time of application. Use plastic sheet method to ensure concrete is moisture free (ASTM D 4263). If moisture is detected, re-test until dry.

Primer:

Wet prime with CEILCOTE 810 COROCRETE resin and #12 Hardener just prior to application of CEILCOTE 830 COROCRETE flooring system.

On old, dry, porous concrete, a separate coat of CEILCOTE 680 Primer shall be used. If the system is to be spark tested use CEILCOTE 680C Primer.

When dry priming mix CEILCOTE 680 (Conductive) Primer resin with CEILCOTE #9 Hardener at 3:1 ratio (3.5:1 ratio if using Conductive Primer). Stir well. Apply to prepared concrete surfaces, at approximately 2 to 5 wet mils (WFT), using a nylon or natural bristle brush or paint roller. **DO NOT PUDDLE THE PRIMER.** Broadcast 20 to 50 mesh (range) sand sparingly into wet primer to enhance grip of flooring. Allow to cure.

Placement:

Mix resin and hardener for at least two minutes. Slowly add aggregate and mix only long enough to completely wet out the aggregate (about 4 minutes). "Fluff spread" evenly over the floor and close (finish) with a finishing trowel, lightly lubricated with mineral spirits, or power trowel. Plastic blade protection is recommended for power trowel applications. 1/4" (6.35 mm) screed bars are recommended for uniform thickness.

CLEAN UP:

Use Toluene, Xylene, T-410 or lacquer thinner.

SAFETY:

- Store in cool, dry area 50°F to 90°F (10°C to 32°C) away from direct sunlight, flame or other hazards.
- CEILCOTE 830 COROCRETE contains epoxy resins and polyamine catalyst. The product's components have been formulated to optimize physical characteristics such as filling capacity, abrasion, moisture and chemical resistance while minimizing hazardous physical and health factors encountered during application. A concerted effort is made to be aware of the latest chemical toxicological information and to apply this knowledge in a responsible manner to insure product safety.
- During application of CEILCOTE 830 COROCRETE materials, always wear gloves and appropriate work clothing to minimize contact. Ventilation is required with special consideration for enclosed or confined areas. Air movement must be designed to insure turnover at all locations in work area and adjacent areas to avoid buildup of heavy vapors. Use caution when handling flammable liquids, eliminate sources of ignition from work area, and containers with residues.
- Observe safe storage practices by separating resins from hardeners, by keeping solvents in a cool area free of sources of ignitions.
- Product Material Safety Data Sheets (MSDS) are available and should be consulted when handling products. These products are for industrial and professional use only. Application directions must be followed.

MAINTENANCE:

Periodically inspect the applied material and repair localized areas as needed. Consult your Master Builders representative for additional information.

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