

CEILCOTE® 680 PRIMER/SATURANT

Clear epoxy for use on concrete and steel

DESCRIPTION:

Ceilcote 680 Primer/Saturant is a low viscosity, 100% solids epoxy compound based on a unique adduct curing technology. This technology results in tolerance for surface moisture, cure at temperatures to 35°F (2°C) and ability to cure in the presence of moisture.

USES:

Ceilcote 680 Primer/Saturant can be used on concrete or steel for the following applications:

Primer For Epoxy Floor Toppings, Linings, Coatings, and Grout

The 680 Primer/Saturant is tolerant to a wide variety of field conditions. When applied to concrete, the surface is upgraded to give high tensile bond strength to the system being used. When applied to properly prepared steel surfaces, 680 forms an excellent bond and inhibits corrosion until Linings, Coating or Grout materials can be applied.

Blinder

Use 680 Primer/Saturant in compounds for filling air voids and bug holes in concrete walls.

Specification

Shall be a 100% solids polyamine-cured epoxy.

PROPERTIES:

Generic Type—Amine-cured Liquid Epoxy

Color—Clear Amber

Solids Content—100%

Weight/Gallon: 680 Liquid—9.5 lbs. (1139 gr./liter)

Hardener No. 9—8.3 lbs. (996 gr./liter)

T-471 Thinner—6.7 lbs. (800 gr./liter)

Flash Point: (Pensky-Martens Closed Cup)

680 Liquid—204°F (95.4°C)

Hardener No. 9—228°F (109°C)

T-471 Thinner—Less than 42°F (5.5°C)

Tensile Strength*—1900-2300 psi (13-15.8 MPa)

Tensile Modulus*—100,000-120,000 psi
(Tangent)—(689-826.8 MPa)

Tensile Elongation*—20-30%

Bond Strength, Tensile

Steel—2500 psi (17 MPa)

Steel, tested @ 180°F—2360 psi (16 MPa)

Steel, 680 cured under water—1420 psi (9.8 MPa)

Concrete—Stronger than concrete

Shear Strength Steel—2400-2800 psi
(16.5-19.3 MPa)

APPLICATION PROPERTIES:

Surface Preparation

Steel:

Abrasive blast to "White Metal" in accordance with Steel Structures Painting Council Specification SP-5-89 or NACE No. 1, using clean dry abrasive to obtain a minimum 3.0 mil profile. Surface must be dry and free of foreign matter.

Concrete:

Abrasive blasting or scarification to remove laitance and surface contaminants is required. Concrete must be thoroughly cured, free of oils, curing solutions or mold release agents, dust and must be dry at time of application. Refer to ASTM D-4263.

Coverage—Concrete

First coat—150-200 ft²/gallon

Recoat—250-325 ft²/gallon

Coverage may vary depending on density of concrete.

Coverage—Steel

250-325 ft²/gallon

Application Equipment

Use brush or short nap roller.

Mixing Ratio

3 volumes 680 Liquid to 1 volume Hardener No. 9.

Handling Properties (approximate time)

	Working Time	Recoat Time	To Sustain Traffic
30°F	8 hrs	20 hrs	36 hrs
45°F	2 hrs	9 hrs	24 hrs
70°F	45 min	5 hrs	12 hrs
90°F	25 min	3 hrs	8 hrs

Acceleration of Cure

680 cures slowly at lower temperatures. For speeding the cure, order 4 oz. LTC Accelerator.

*ASTM C 307 Modified

Clean Up

Use Solvent T471, T410, methyl ethyl ketone or lacquer thinner. Observe fire and health precautions with solvents.

ORDERING INFORMATION:

	Volume	Package	Weight
1 Gal Unit	3 qts	1-2 gal pail 680 Liquid	7lbs
	1 qt	1-1 qt can No. 9 Hardener	2 lbs
4 Gal Unit	3 gal	1-5 gal pail 680 Liquid	27 lbs
	1 gal	1-1 gal can No. 9 Hardener	8 lbs

STORAGE:

Store in a warm place in winter so material will handle and cure better. In summer store in a cool place so the working life will be longer. It is best to store material between 65 and 75°F.

SAFETY:

WARNING—Vapor may be harmful. Contains epoxy resins and amine catalyst. May cause skin sensitivity or other allergic responses. Keep away from heat, sparks or open flame. In enclosed areas or where ventilation is poor use an approved air mask and utilize adequate safety precautions to prevent fire or explosion. In case of skin contact, wash with soap and water. For eyes, flush immediately (seconds count) with water for 15 minutes and CALL A PHYSICIAN. If swallowed, CALL A PHYSICIAN IMMEDIATELY.

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