Spec Cote 100 CR

Chemical Resistance Novolac Epoxy Coating

TECHNICAL DATA SHEET

DESCRIPTION
Spec Cote 100 CR is a 96% solids, two-component Novolac Epoxy offering a high degree of chemical and abrasion resistance to protect and seal concrete floors.

USE
Spec Cote 100 CR combines excellent chemical and wear resistance with a tough semi-gloss appearance for a seamless monolithic flooring surface. Spec Cote 100 CR can be used for concrete floors, chemical troughs, drains, tanks, spill areas, secondary containment, and other compatible materials for interior applications where harsh chemical splash and spillage routinely occur.

FEATURES
- Excellent chemical resistance to a wide range of harsh chemicals
- Excellent durability and adhesion to most substrates
- High abrasion resistance
- Tough impact resistant coating
- V.O.C. compliant /low odor
- High tensile & bond strength
- High-build capabilities
- Semi-gloss appearance

PROPERTIES
Mix Ratio: 2:1 by volume

Viscosity (mixed): 2,200-2,700 cps (color dependant)

Pot Life: 25-35 minutes (1.5 gal) @ 70°F. (21°C)

Tack Free Time (dry to touch): 5-7 hours @ 70°F. (21°C)

Recoat or Topcoat: 5-10 hours @ 70°F. (21°C)

Light Foot Traffic: 18 hours @ 70°F. (21°C)

Final Cure: 7 days @ 70°F. (21°C)

Gloss: 40 @ 60 degrees (Erichsen gloss meter)

Tensile Strength (ASTM D-638): 6,600 psi min. (45.5 MPa)

Flexural Strength (ASTM D-790): 9,680 psi (66.74 MPa)

Elongation: 4.7%

Abrasin Resistance: Taber CS-17 Wheel 1000 gm load @ 500 cycles = 20 mg loss

Hardness Shore D Scale: 88

Adhesion Bond Strength: 425 psi (2.93MPa) measured with Elcometer Adhesion Tester (concrete failed, no delamination of coating)

Gardner Variable Impactor: 50 inch-pounds direct impact (passed)

Heat Deflection Temperature (HDT) ASTM D 648: 115.5° F. (46.39°C)

VOC
Spec Cote 100 CR has a VOC content of 48 g/L. Compliant with all VOC regulations including Federal EPA, OTC, LADCO, SCAQMD & CARB.

Estimating Guide
An application rate of 90-100 ft² /gal. (2.2- 2.45 m²/L) will result in an 18- 16 mil (45 -41µm) thick coating respectively over the Spec Cote WB primer. Actual coverage rates will vary depending on concrete porosity, surface profile and other job site conditions.

Packaging

Color	3 Gallon 11.35 liters	15 Gallon 56.78 liters
Lt Gray	308901	308904
Med Gray	308902	308905
Tile Red	308903	308906

COLOR
Standard Colors: Light Gray, Medium Gray Standard Non-stock Colors: Tile Red

Customer responsible for up to 10% overrun.

STORAGE
Spec Cote 100 CR should be stored in a dry temperature controlled environment between 60°F to 90°F (15.6°C to 32.2°C). Shelf life is one year if cans are unopened and undamaged. Low storage temperatures or significant temperature fluctuations may cause product to crystallize.

APPLICATION

Surface Preparation:
Concrete floor should be sound clean and dry and free of oil, dirt, grease, paint, laitance, and the typical membrane forming curing compounds. The concrete should be at least 28 days old. Floors should be mechanically prepared i.e., shotblast, sandblast, to result in an International Concrete Repair Institute (ICRI) Concrete Surface Profile (CSP) of between CSP # 1-2, or the texture of medium grit sandpaper to ensure proper adhesion. If oils or grease are present chemical degreasers should be used to thoroughly degrease concrete before shotblasting.

Mixing:
Stir each component separately before mixing them together. Pour two parts of the stirred Part A resin into an appropriately sized mixing container then add one part of the stirred Part B and mix thoroughly for three minutes with a low speed (< 400 rpm) drill equipped with a mixing paddle or “Jiffy Mixer”. Mix until completely streak free and uniform in color and consistency. Avoid entrapping, or introducing air into the mix.

Trowel Down Epoxy Mortar Topping:
Apply a neat base coat of Spec Coat WB to prime the surface at 230-320ft² /gal. (5.63-7.84 m²/L). Mix the Spec Cote 100 CR to a mortar consistency by first mixing the preblended A & B components to an uniform consistency

and color, then slowly adding 150 to 180 lbs. (68.0-81.6 kg) of clean, dry, well graded, dust free silica sand per 3 gallon (11.3L) unit of Spec Cote 100 CR and blend until the sand is thoroughly wet-out and dispersed. Apply the mortar uniformly to the still tacky primed surface with a trowel. Slightly wetting the trowel surface with xylene may aid in finishing.

Priming:

Prior to applying the Spec Cote 100 CR, a single coat of Spec Cote WB should be applied as a primer in accord with the directions of that products respective technical data sheet. Wait until the Spec Cote WB has dried to the touch before applying the Spec Cote 100 CR. Do not exceed 16 hours between coats of primer and Spec Cote 100 CR.

Placement:

Surface, ambient and material temperature is recommended between 60°F (15.6°C) and 95°F (35°C.) with a relative humidity below 90%. To maximize the working time of the mixed epoxy, immediately pour the mixed material onto the floor to be coated. A notched trowel or squeegee can be used to uniformly spread the epoxy on the surface. Immediately back roll with a 1/4 - 3/8 inch phenolic core roller to even out the surface. Avoid over-rolling or over-working the material. Two coats are recommended for optimum performance. The second coat can be applied when the first coat is completely dry and tack free, but must be applied within 16 hours to achieve adequate adhesion and bond between coats to avoid additional surface preparation. Before recoating or top coating, check for the presence of epoxy blush (a whitish, greasy film or de-glossing). If a blush is present, remove by standard detergent and water cleaning prior to top coating. Applications on porous concrete surfaces may result in small bubbles forming in the prime coat. This is due to air within the concrete being displaced by the coating, commonly referred to as out-gassing. If this occurs, use an air-release roller prior to the coating becoming tack free, or buff the base coat with screen wire or an abrasive pad prior to application of the second coat.
To provide a skid resistant surface, a base coat of Spec Cote 100 CR should be applied and clean dry aggregate (silica sand) broadcast on the tacky base coat to the desired texture finish. Once the base coat has cured, broom away any loose aggregate and apply a thin topcoat of Spec Cote 100 CR to encapsulate and seal the aggregate.

CLEAN UP

All tools and equipment should be cleaned before the material gels or hardens. Use solvents such as Xylene (Xylol), when necessary.

LIMITATIONS

FOR PROFESSIONAL USE ONLY

New concrete must be at least 28 days old.
Do not apply over moving joints or cracks due to the potential for reflective cracking
Colors or clarity may be affected by high humidity, low temperatures or chemical exposure.
Moisture Vapor Emission Rate should be no more than 3lbs. according to ASTM F 1869.
Concrete must be above the ambient dew point temperature.
Spec Cote 100 CR is a vapor barrier and should not be applied to surfaces exhibiting moisture vapor transmission.
Do not use for on-grade concrete slabs unless a vapor barrier was used and the slab will not be subjected to freeze/thaw cycles.
Exposure to sunlight or other UV sources such as sodium vapor lighting can lead to discoloration of the coating. Clear aliphatic urethane topcoats such as Spec Cote Urethane reduce the UV color change effects.
Colors may vary slightly from batch to batch, therefore try to use product from the same batch for an entire project.
Restrict the use of the floor to light traffic and non-harsh chemicals until coating has reached full cure.

PRECAUTIONS

READ SDS PRIOR TO USING PRODUCT

- Component A – Irritant
- Component B – Corrosive
- Product is a strong sensitizer
- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield)
- Keep out of the reach of children
- Do not take internally
- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed.
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements
- Cured epoxy resins are innocuous

MANUFACTURER

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