



INSTALLATION INSTRUCTIONS CS-98

SURFACE PREPARATION

Before applying a ConSeal primer or coating, ensure the concrete is devoid of dust, dirt, oils, grease, form release agents, curing compounds, laitance, and debris. Do not apply ConSeal primers or coatings over an existing coating without contacting ConSeal's technical team. Conduct a thorough inspection of the surface's integrity. Static hairline cracks should be sealed with a cementitious paste or with an epoxy injection in accordance with ASTM C881. Remove sharp edges or concrete splatter. Start the coating application process **ONLY AFTER** the surface is verified to be clean, sound, and sufficiently dry per the primer or coating requirements. If necessary, patch or repair damaged areas, honeycombing, exposed rebar, etc. Testing shall be done in advance to assure compatibility of coating with the patching materials.

Concrete can be prepared using vacuum cleaning, air blasting, and water cleaning as described in ASTM D4258. Detergent water cleaning and steam cleaning as described in ASTM D4258 may be used to remove oils and grease from the concrete surface. To remove loose concrete, laitance, and to expose surface voids, dry adhesive blasting, wet adhesive blasting, vacuum-assisted abrasive blasting, and centrifugal shot blasting as described in ASTM D4259 may be used. High pressure water jetting as described in ASTM D4259 may also be used.

Acid etching as described in ASTM D4260 may be used to remove laitance and weak concrete. All acidic materials shall be removed from the concrete and the pH of the concrete shall be tested to assure the acid has been neutralized. Some sealers or primers may prohibit the use of acid etching. Hydrochloric acid, such as muriatic acid, is not to be used where metal (e.g., rebar) is exposed.

NOTE: When using a coating for the first time, it is advisable to coat a small test patch on a representative section of concrete and verify adhesion before proceeding to large scale coating projects.

TESTING OF A COATING SYSTEM

All concrete has unique variations. Concrete coating systems should be tested on the concrete intended for use along with adhesion performance testing as described in ASTM D7234. For further testing use ACI 302.2 as a guide.

For testing, a simple method that can be used in the field is ASTM D3359, Test Method A. An 'X' is cut into the coating with a sharp knife. Then, 1" (25 mm) wide pressure sensitive tape is placed along the center of the cut that was made, pressed firmly into place, and removed by a quick pull. Check for a loss of coating, especially at the intersection of the 'X'.

PRIMING

ConSeal CS-98 epoxy coating does not require a surface primer.

**DO NOT USE PETROLEUM SOLVENTS SUCH AS MINERAL SPIRITS OR XYLENE FOR SURFACE PREPARATION.
DO NOT THIN OR DILUTE ANY CONSEAL PRIMERS OR COATINGS BEFORE USE.**

STORAGE

DO NOT FREEZE! Always keep the containers sealed when they are not being used. Ensure that unopened containers are safeguarded against water, heat, and direct sunlight. It is important to store these original, sealed containers in an environment that is both cool and dry, ideally within a temperature range of 40°F to 90°F. If a spill occurs, contain it using an inert absorbent material, like sand, vermiculite, or kitty litter. Then, dispose of the waste responsibly, following all relevant local, state, and federal environmental regulations. Be aware that storing the product at temperatures above 100°F can decrease its shelf life. Once opened, pails should be used within six months for optimal quality.

CLEAN UP

Mechanical scraping will be necessary for cured product. Water based coatings that are still wet can be removed with warm, soapy water. All other coatings to be cleaned with denatured alcohol, MEK, or Acetone.

LIMITATIONS

- In areas where prolonged chemical exposure is anticipated, contact Concrete Sealants, Inc. for recommendations.
- Do not apply at temperatures below 40°F (4°C).
- Do not use on surfaces with an existing coating unless the coating is completely removed or otherwise advised by Concrete Sealants, Inc. technical staff.

KEEP ALL PRIMERS AND COATINGS OUT OF REACH OF CHILDREN

REFER TO CONCRETE SEALANTS SAFETY DATA SHEETS FOR ADDITIONAL INFORMATION

ENVIRONMENTAL CONDITIONS

The age of the concrete shall be as specified by the coating being used. The moisture content of the concrete shall not exceed the measure specified by the coating being used. The moisture test shall be completed after cleaning and drying, but before the application of the coating¹. Coatings shall be applied when the air temperature is within 20°F of the high temperature of the day. The relative humidity of the coating environment shall not exceed 80% at any time during application or curing for waterborne coating and waterborne primer products. If coating indoors, maintain a temperature range within 20°F during the application and curing of the coating. Additionally, the air temperature and the temperature of the concrete to be coated shall be a minimum of 5°F above the dew point temperature and rising.

ALL COATINGS SHALL NOT BE APPLIED TO FROZEN CONCRETE WITH A CORE TEMPERATURE BELOW 32°F.

APPLICATION INSTRUCTIONS

CS-98 APPLICATION:

Surface Preparation: No primer is required for **ConSeal's CS-98 High-Build, Ultra-Performance Epoxy Coating**.

CS-98 must be applied to clean, structurally sound, dry concrete or metal surfaces that are free of contaminants that may inhibit bonding, including dust, dirt, grease, form release agents, laitance, and debris.

For Concrete: The surface must be dry and allowed to reach the surrounding air temperature prior to application. Lightly abrade the surface using a wire brush, concrete sanding brick, or coarse grit sandpaper to produce a slightly roughened profile. Remove all dust and debris using a vacuum or damp rag.

Bugholes on the interior of a sewer manhole shall be filled using a suitable material such as Rubcrete by ALP or an equivalent product. Exterior bugholes larger than 3/8 in. (8 mm) in diameter, or exceeding 50 bugholes per square inch, shall be filled prior to coating.

Mixing and Handling: Stir both Part A and Part B components thoroughly in their separate containers before use. For proper performance, CS-98 must be mechanically mixed using a powered drill and paddle mixer. Hand mixing is not recommended, as it will not adequately blend the components.

Once mixed individually, gradually combine the entirety of Part A into Part B at a 2:1 mix ratio by weight, stirring continuously until a uniform mixture is achieved. Promptly transfer the mixed coating into a paint tray to prevent excessive heat buildup, which may occur if the material is left in the mixing container and can present a burn hazard.

Pot life when distributed into a paint tray is 30 Minutes at 77°F. Always mix in a well ventilated area and avoid inhaling fumes from Part B immediately after opening.

Application: Apply CS-98 using a brush or roller at a recommended thickness of 30 mils wet. The ideal application temperature range is between 40°F and 120°F. CS-98 may also be applied using professional, plural component spray equipment; contact ConSeal for additional details.

Curing and Recoat: The coating will typically cure within 4 to 6 hours, with cure time decreasing at higher ambient temperatures. CS-98 will not cure effectively at temperatures below 40°F. If an additional coat is required, lightly abrade the cured surface prior to reapplication to ensure proper adhesion.

DISCLAIMER: This publication is to assist users to understand the proper use of ConSeal's products. Contact ConSeal's technical staff for installation instructions that meet your specific requirement. Concrete Sealants, Inc. does not warranty any improper use of its products.