

CONCRETE STAIN & SUPPLY, LLC

Technical Data Sheet (TDS) CR-540 INSIDE URETHANE

**This product may only be used on fully cured concrete. Allow a minimum of 28-45 days of cure time after the concrete is poured to allow ample time for the concrete to completely hydrate.

Product

CR-540 Inside Urethane is a high solids, two component, water-based aliphatic polyurethane. It provides performance properties equal to conventional solvent based urethanes without the associated health and environmental problems. Inside Urethane is a hard, fast curing coating with good gloss, superior abrasion resistance and is easy to clean. Resistance to yellowing from U.V. light is excellent. Typical areas of application would include clean rooms, hospitals, concrete counter tops and high traffic retail areas. Inside Urethane is also suitable for aircraft hangars, automotive repair facilities and garage floors.

Prior to installing CR-540 Inside Urethane, a primer coat of CR-530 Inside Epoxy must be applied.

Inside Urethane is packaged as a convenient kit. The resin(Part A) is in a short filled one gallon can with a one quart hardener (Part B) "kicker". Simply dump the entire contents of Part B into the Part A can and mix.

Coverage

Coverage rate is 300 - 400 sq ft per gallon (225-300 sq ft per kit). Coverage variations depend on concrete surface porosity and amount of material applied. CR-540 Inside Urethane must be applied as a thin coat, application rate must be kept above 250 square feet per gallon (188 sq ft per kit).

Surface Preparation

Prior to installing CR-540 Inside Urethane, a primer coat of CR-530 Inside Epoxy must be applied. Allow a minimum of 16 hours for CR-530 Inside Epoxy to cure, then mechanically clean and abrade using a floor machine (buffer) with 80 mesh sanding screen prior to application.

Application Tools

Roller and Brush or Airless Sprayer

Mixing Instructions

Open the one gallon can Part A resin and add the entire contents of the one quart Part B hardener. Use a spatula to empty the entire contents of the Part B hardener into the Part A can. It is critical to have an exactly portioned mixture, which has been prepackaged for you to eliminate any guesswork or measuring. After combining the two components use a squirrel cage mixer on a low speed drill for 2 minutes to completely mix the components. Be careful to not whip air into the mixture, and be certain to scrape the sides and bottom of the can to combine all molecules. Incomplete mixing or an off balance mixture will result in a coating that will remain soft forever.

Application Recommendations

CR-540 Inside Urethane can be applied at a rate of 1 to 3 mils thick. CR-540 Inside Urethane must be applied as a thin coat, application rate must be kept above 250 square feet per gallon (188 sq ft per kit).

Cure Rate/ Drying Time

Dry to Touch.....6 hours

Light Traffic.....18 hours

Full Cure.....7 days

Pot Life at 77degrees (F)..... 3 hours

Thinning

Do not thin.

Additional coats

Previously coated surfaces must be mechanically cleaned and abraded using a floor machine (buffer) with 80 mesh sanding screen prior to application.

Clean Up

Discard used consumable items such as roller pans, roller covers, brushes, etc.

Storage and Shelf Life

Do not allow to freeze. Shelf life of unopened product is approximately one year.

Physical Properties

Mixing Ratio, by Volume	2-1
Solids Content, by Weight (Clear)	53%
Solids Content, by Weight (Pigmented)	66%
VOC, grams/liter	100
Pot Life (77 degrees, 1 quart mass).....	3 hours
Pot Life (95 degrees, 1 quart mass).....	50 minutes

Pot Life is reduced by increasing temperature and/or mass.

Dry Times (77 degrees, 30% R.H.)

Dry to Touch	6 hours
Recoat	12 hours
Light Traffic.....	18 hours
Full Cure	7 days

Higher temperatures and lower humidity will accelerate cure times.

Lower temperatures and higher humidity will lengthen cure time.

Performance Properties

Gloss, 60° (clear material).....	88
Pendulum hardness, sec (ASTM D-4336)	175
Tabor Abrasion - 1000 gm. load 1000 cycles, CS 17 wheel.....	39 mg. loss

Chemical And Stain Resistance (ASTM D-1308 24 Hour Immersion)

Urine	no effect
Blood.....	no effect
Betadine	no effect
Whiskey	no effect
Black Ink.....	no effect
Brake Fluid.....	no effect
Gasoline	no effect
Skydrol.....	no effect
Xylene	no effect
MEK.....	no effect
50% Sodium Hydroxide.....	no effect
10% Hydrochloric Acid.....	no effect
10% Sulphuric Acid.....	no effect
10% Acetic Acid.....	no effect

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Limitations

Previously coated surfaces must be mechanically cleaned and abraded using a floor machine (buffer) with 80 mesh sanding screen prior to application.

Application rate must be kept above 250 sq. ft. per gallon to avoid “curing bubbles”.

Do not apply material if the humidity is over 90% and ventilation is poor. Improper cure will result.

Air and substrate temperatures must be minimum 50°F

Do not apply when air or surface temperature exceeds 90 degrees (F) or LAP marking / poor penetration / bubbling may result. Do not apply to bare, wet, or damp concrete, moisture will inhibit penetration of the sealer and cause improper curing, flaking or lifting of the sealer. Do not apply if dew may condense on the surface before the sealer has cured. Allow for extended dry times during cold weather / high humidity.

Moisture Vapor Emissions/Alkalinity Precautions

All interior concrete floors not poured over an effective moisture vapor barrier/inhibitor are subject to possible moisture vapor transmission and related high levels of alkalinity that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions or alkalinity are present before applying any coatings.

Warranty

The Manufacturer and/or the Seller warrants that if any goods supplied prove defective in workmanship or material, that Manufacturer and/or Seller shall replace them or refund the purchase price. This warranty is made in lieu of any and all other warranties expressed or implied. Before application, the User shall determine the suitability of the product for his intended use and User assumes all risks and liabilities whatsoever in connection therewith. Under no circumstances shall the Manufacturer and/or Seller be liable for incidental, consequential or other damages for alleged negligence, breach of warranty, or strict liability arising out of use or handling of this product. The sole liability of Manufacturer and/or Seller for any claims arising out of the use or sale of the product shall be for the User's purchase price. Any claim of defective product must be received in writing within one (1) year from date of shipment.

Safety

Do not breathe vapors. When using in confined or limited ventilation areas, use appropriate respirator to protect against breathing vapors. Avoid contact with skin; wear protective gloves and clothing. Always use eye protection such as goggles, face shield or safety glasses. Read Material Safety Data Sheet before using.

First Aid

Eye Contact: Immediately flush eyes with plenty of water for at least 15 min. while holding eyelids open. Seek medical attention.

Skin Contact: Immediately remove contaminated clothing. Wipe excess from skin and wash with soap and water. Seek medical attention if irritation persists.

Inhalation: Remove person to fresh air and provide oxygen if breathing is difficult. Seek medical attention.

Slip and Fall Precautions

OSHA and the American Disabilities Act (ADA) have standards for slip-resistance on pedestrian surfaces. The coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Concrete Stain & Supply, LLC recommends the use of slip-resistant additives in all sealers or coatings that may be exposed to wet, oily or greasy conditions. It is the installer and end users' responsibility to provide a flooring system that meets current safety standards. Concrete Stain & Supply, LLC or its sales agents will not be responsible for injury incurred in a slip and fall accident.