

ENGRAVE-A-CRETE, INC.

Technical Data Sheet (TDS)

CONCRETE RESURRECTION CR-531 Inside Epoxy (100% Solids Clear Epoxy)

****This product may only be used on fully cured concrete. Allow a minimum of 28-45 days of cure time (or until a pH reading of 10.5 or less is achieved) after the concrete is poured to allow ample time for the concrete to completely hydrate. It is recommended that a calcium chloride (or similar) moisture test be completed on any floor prior to Inside Epoxy application.**

Product

CONCRETE RESURRECTION CR-531 Inside Epoxy is a two component 100% solids, cyclo-aliphatic amine epoxy system with excellent durability including abrasion resistance, chemical resistance and hot tire pickup. It can be utilized as a low, medium or high build coating. CR-531 Inside Epoxy also has the unique capability to be tinted to a variety of colors using the Concrete Resurrection line of epoxy pigments. Whether used as a clear sealer, Liquid Nebula Metallic Floor, colored backfill for cuts, solid color floors, or as an epoxy chip floor system, Inside Epoxy does it all!

Coverage *(varies based on concrete surface porosity and amount of material applied)*

¾ Gallon Kit: 100-200 sq ft for Clear Coat
 50-75 sq ft for Metallic Coating

3 Gallon Kit: 400-800 sq ft for Clear Coat
 200-300 sq ft for Metallic Coating

Surface Preparation

A fine to medium shot blasting or the use of a diamond grinding machine to obtain a surface profile of a CSP - 3 to a CSP - 5 is suggested for ultimate adhesion.

A test should be made to determine that the concrete is dry; this can be done by placing a 4 x 4 plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate should be ready to coat. More advanced moisture testing kits should be used on floors with suspected moisture problems.

Apply coating to a clean surface that is completely dry and free of oil, dirt, grime, wax, detergent or any incompatible paint or coating. RAC Stained concrete must be neutralized, thoroughly cleaned, and dry prior to sealing. WRC Stained concrete must be completely dry prior to sealing.

Concrete must be completely dry prior to sealer application. It is strongly recommended that a surface probe moisture meter be utilized to verify the surface is dry. After visually determining the concrete is dry, test a minimum of 10 different areas of the concrete with the moisture meter. Pay special attention to cracks, control joints, and slab edges.

Mixing Instructions - Clear

Open the one gallon can of 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 paint 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.

Mixing Instructions – Pigmented

When a pigmented epoxy is desired add the desired amount of pigment into the resin (part “A”) and mix completely using a paint mixer on a low speed drill. When desired color is achieved follow the directions above for adding and mixing in the hardener (part ”B”).

WARNING Use only Concrete Resurrection epoxy pigments.

Application Recommendations

CONCRETE RESURRECTION CR-531 Inside Epoxy can be applied at a rate of 3 to 8 mils thick, using a roller, squeegee or trowel within the usable pot life time frame, as well as the recommended temperature and relative humidity guidelines listed in the Technical Information section. If concrete conditions or aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. If the material becomes thick while applying and sticking to the application tools , stop applying and discard the mixed material. At this point it has reached the end of the usable pot life. While applying keep a wet edge to prevent streaking. It is recommended to work in sections usually using control joints as dividers to ensure proper application results. Do not allow to Puddle!

Abrasion Resistance.....	28.1 mg loss
(Tabler Index, ASTM 4060-81, CS-17 Abrasion Wheel, 1000 gram load)	
Gloss 60°°°	90-95
Flexibility (1/8” Mandrel).....	Pass
Hardness - Shore D.....	82
Compressive Strength @ Yield (psi).....	11,200
Tensile Strength (ASTM D638).....	6200
Elongation.....	7%
Solids % Weight (Federal Spec. TTP-141B).....	100%
Mix Ratio (a/b volume).....	2 to 1
** 19.33# part A (2.0 gallon approximate) to 8.66# part B (1 gallons approximate)	
Viscosity.....	400-600 cps
Pot Life.....	20 - 30 minutes
Dry Time-Set to Touch (50% R.H. @ 72° F).....	6 - 8 hours
Dry Time-Recoat (50% R.H. @ 72° F).....	10 - 16 hours
Dry Time-Light Traffic (50% R.H. @ 72° F).....	14 - 18 hours
Dry Time-Full Cure (heavy traffic) (50% R.H. @ 72° F).....	2 - 7days
Application temperature.....	55-90 degrees F

Product is FDA compliant in a continuous cleanable film.

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 to ensure adequate inner coat adhesion.

Please Note: Applying CR-531 Inside Acrylic outside of the suggested parameters may result in job failure. It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application. Coverage rates may vary for all coatings and substrates depending on porosity, density, texture etc.

Clean Up

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

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Storage and Shelf Life

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

Butanol.....C	10% Sodium Hydroxide.....E
Xylene.....C	50% Sodium Hydroxide.....D
1,1,1 trichloroethane....B	10% Sulfuric Acid.....C
Methanol >>.....A	70% Sulfuric Acid>>.....A
Gasoline.....C	5% Acetic Acid.....B
Skydrol B-4.....B	10% HCl (aq).....C
Ethylene Alcohol.....C	
MEK.....A	

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion.

•• A chemical exposure test should always be performed prior to application resistance to ensure satisfactory results are obtainable.

Limitations

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 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 drying 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 organic vapor respirator to protect against methyl amine 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 minutes 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 now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Concrete Stain & Supply, LLC recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor 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.

Epoxy Chip Floors

When an "Epoxy Chip" floor is desired there are multiple methods to apply product.

Some of the design factors to consider before application is color of pigment in the epoxy and chip color.

Technique 1: (1-2 person team)

Roll or squeegee the epoxy across the width of the job and approximately 5' deep. Then broadcast the epoxy chips onto the wet epoxy approximately 4' deep. This will allow you to roll the next section of epoxy into the first area without picking up chips on your roller cover. Continue to repeat this process until complete coverage is obtained

Technique 2: (3-5 person team)

Coat the entire surface to be treated with the desired color of epoxy. Wearing epoxy spikes or golf spikes, walk carefully onto the floor and broadcast the entire surface with epoxy chips.

Final Coat:

After the epoxy has become tack free (typically 6-10 hours) a coat of clear Inside Epoxy should be applied to the top surface in order to protect the epoxy chips. If additional protection is desired, a top coat of Inside Urethane may be applied over the Inside Epoxy (allow 12 hours of cure time and mechanically abrade the Inside Epoxy prior to the Inside Urethane application).

Tips

Spikes:

Wearing spikes (epoxy spikes or golf shoes) will allow you to walk out over the epoxy to broadcast chips or fix any issues. ***WARNING*** Walking on wet epoxy with spikes is like walking on ice. Move slowly and carefully.

Broadcasting Chips:

Prior to your first job practice broadcasting chips onto "dry" concrete to test your technique. It is best to throw a small handful of chips up into the air and let them scatter as they fall down. This technique helps to avoid "clumps" of chips on the floor.