

ENGRAVE-A-CRETE, INC.

Technical Data Sheet (TDS)

CONCRETE RESURRECTION Liquid Nebula

**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

Made of millions of suspended reflective pigments, Liquid Nebula powder mixes into epoxy to give both residential and commercial spaces the high-end, ultra-modern look so popular today. Use a single color for elegance, or blend colors for a breathtaking effect.

Liquid Nebula offers infinite design possibilities based on color choice and application techniques. The result is a durable, glossy surface with the breathtaking depth of color found only in the cosmos.

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

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

3 Gallon Kit: 400-800 sq ft for Base 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 48" x 48" 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.

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.

Base Coat

While not required, a black or dark primer coat is the most popular choice since it enhances the reflectivity of Liquid Nebula Metallic pigments. (See application recommendations for application instructions)

Mixing Instructions

Base Coat: When mixing a base coat or Liquid Nebula Metallic pigments epoxy add the appropriate 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”). 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.

Liquid Nebula Metallic Coat: When possible, blend the Liquid Nebula Metallic pigment into the part A component of CR-531 Inside Epoxy 24 hours prior to job start. This soaking time will allow the full wetting of the pigments with the Part A resin, thus minimizing the appearance of clumped pigment and “comet tail” effects during epoxy movement. If unable to do that, when mixing the Liquid Nebula Metallic pigments shake the container of Liquid Nebula Metallic Pigment and empty the entire container into the resin (part “A”) 3 gallon kit of Concrete Resurrection Inside Epoxy. Be sure to get all of the pigment into the liquid and not onto the sides of the container. Once mixed completely add the hardener (part “B”). 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.

Multiple colors can be applied for additional effects – be sure to not overwork or you will not see the two distinct colors.

WARNING Use only Concrete Resurrection epoxy pigments.

Application Recommendations

BASE COAT: The base coat for Liquid Nebula 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!

LIQUID NEBULA METALLIC: . Spiked shoes are recommended throughout application. Pour contents out in a long trail for application. Liquid Nebula Metallic Epoxy can be spread with Notched squeegee or gauge (wider squeegee is recommended), Spread product evenly over area. Flatten the poured out trail into place, as it self-levels. Back roll with a 3/8” roller or mohair roller or smooth using a Magic Trowel, speed squeegee or loop roller. (rollers should be premium quality with phenolic core and 18” wide is recommended for larger areas)

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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 - 7 days
Application temperature.....	55-90 degrees F

Thinning -- Do not thin.

Finish Coat and 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. Follow abrading with vacuuming and wipe down with a micro-fiber cloth with denatured alcohol or acetone. For superior protection, you may choose to apply a top coat of Concrete Resurrection Polyaspartic.

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.

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 curing 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. Engrave-A-Crete, inc. 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. Engrave-A-Crete, Inc. or its sales agents will not be responsible for injury incurred in a slip and fall accident.