# EXOTIC METALS
## METALLIC EPOXY



**DESCRIPTION:** **Proline's Exotic Metals** is a three-dimensional metallic epoxy system designed to create elegant, beautiful and unique seamless floors. Exotic Metals is a 100% solids, two component, epoxy formulation with high strength and excellent impact resistance. Unlike stains which require craftsman like skills to get a repeatable finish, Exotic Metals is designed to be an easy to install product that can offer very similar results each time it is applied. Always do a sample of the color selected and have it approved before starting a job.

**TYPICAL USES:** Ideal for residential and commercial use including, living rooms, kitchens, bathrooms, retail stores, office spaces, lobby areas, tattoo parlors, barber shops, hair salons, restaurants, clothing stores, casinos and showroom floors.

**FEATURES & BENEFITS:**

- ▶ Self-Leveling
- ▶ Low Odor
- ▶ Wide color selection
- ▶ No VOCs (Solvent Free)
- ▶ High Gloss Appearance
- ▶ Environmentally Friendly
- ▶ Excellent Bond Strength
- ▶ 100% Solids
- ▶ Excellent Chemical Resistance

**CHEMICAL PROPERTIES*:**

| | |
|---|---|
| Solids by Volume | 100% Solids |
| Volatile Organic Compounds | 0 lbs/gal (0 g/l) |
| Mix Ratio, parts per volume | 2A Resin : 1B Hardener |
| Pot Life | 15-20 minutes |
| Recoat | 12 – 24 hours |
| Tack Free @ 70 | 5 hrs (warmer temps accelerate dry time) |
| Walk on time (light Foot Traffic) | 12 – 15 hrs |
| Coverage rate per gallon | 50 sq.ft. |
| Recommended application temperature | ≥40°F (4°C) [cures faster in warmer temps, cure time is longer in cooler temperatures] |
| Odor | Low |
| Flash point | Resin 400 F, Hardener 210 F |
| Shelf Life | 12 months |

| TYPICAL PHYSICAL PROPERTIES*: | TEST | RESULT |
|---|---|---|
| Adhesion – concrete | ASTM D-903 | 300 psi |
| Hardness (Shore D) | ASTM D-2240 | 82 |
| Tensile Strength (psi) | ASTM D-412 | 7,500 |
| Flexural Modulus (psi) | ASTM D-790 | 11,900 |
| Elongation (%) | ASTM D412 | 4 |
| Compressive Strength (psi min) | ASTM D-695 | 10,000 |

**MOISTURE VAPOR TESTING:** All concrete floors not poured over a proper moisture barrier, are subject to possible moisture vapor transmission or hydrostatic pressure problems, which can cause a coating system to blister or fail. Before applying a coating system over a concrete floor which is on-grade or below grade, the customer should be informed of this potential problem and given the option to have a qualified moisture testing company perform calcium chloride test to give the proper recommendations. Proline's Vapor Block Epoxy can be used as a primer to bring down moisture pressure. Proline does not warranty against moisture problem failures.

**SURFACE PREPARATION:** The surface must be clean and sound, free from oil, dirt, waxes and any other contaminants that may interfere with bonding. Some surface preparation methods include shot blasting and scrubbing with detergent or acid washing, neutralizing and rinsing. Shot blasting is recommended for commercial or industrial jobs. For best results apply Exotic Metals over a dry, primed surface. Important – Before applying Exotic Metals always blow the entire surface to be coated, including around all the edges, corners and under walls to be sure no loose debris will come out during the Exotic Metals application. Loose debris hidden under drywall can become imbedded in the Exotic Metals if not removed ahead of time.

**CRACK REPAIR:** Repair all cracks, holes, pits, spalls etc… with Proline's Rapid Repair Crack and Spall Filler. Please refer to the Rapid Repair and Crack Repair Technical Data Sheets for detailed instructions.

**MIXING INSTRUCTIONS:** Before starting your project, mix Exotic Metals Pigment with all Part A Resin pails that will be used during the application. Blend the metallic pigment and the Part A Resin using a low speed drill motor and mixing paddle for 3-4 minutes until evenly dispersed. Scrape the sides and bottom of the pail during the process. For 1.5 gal kits, mix entire contents of a small pigment container with 1 gallon Exotic Metals Epoxy Part A Resin. For 3 gal kits, mix entire contents of a large pigment container with 2 gallons Exotic Metals Part A Resin. Once all Part A's have been pigmented proceed to the next step. The mixing ratio for Exotic Metals is 2A:1B. Mix 2 parts pigmented A Resin to 1 part B Hardener using a low speed drill motor and mixing paddle for 3 – 5 minutes. Scrape the sides and bottom of the mixing container during the process.

**Note:** High humidity and/or low temperatures can cause haziness and blushing in the coating.

**SYSTEM INSTRUCTIONS:**

**IMPORTANT**: **Store all two-component products between 70º - 75º F (21º - 24º C) at least 24 hours prior to mixing. Colder materials will be thicker and harder to work with. Warmer materials will have a shorter pot life and shorter application window. Material that has been sitting in the sun or in a hot environment for too long can set up and harden quickly once mixed together.**

**Primer coat –** Apply a colored base coat of Proline's Vapor Block Epoxy Color or Epoxy 100 Color. This primer coat will seal off the concrete to help prevent out gassing as well as provide a complimentary base color for the Exotic Metals colors. Allow the primer to cure for 12 – 15 hours or until dry enough to walk on. If more than 24 hours passes before applying Exotic Metals over the primer coat sand the primer with 80 – 100 grit sandpaper on an orbital sander to scratch the epoxy. Then clean off the dust and wipe off the surface with acetone. Please refer to the Vapor Block Epoxy or Epoxy 100 Technical Data Sheet for detailed mixing and application instructions.

**Recommended primer colors**

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|---|---|
| Black | Chrome, Copper, Electric Blue, Emerald, Graphite, Mocha, Orange Flame, Purple Rain, Royal, Sangria, Steel |
| White | Arctic Frost, Pearl, Candy |
| Cool Gray | Aqua |
| Desert Tan | Sunburst |

**Exotic Metals Coat –** Immediately after mixing Exotic Metals, pour the entire bucket in a thin row next to the starting edge and begin spreading using a 1/8" notched squeegee or notched trowel at a coverage rate of 50-60 sq.ft. per gallon. This coverage rate will provide better color design as well as improve durability and impact and wear resistance. (Exotic Metals can be applied thinner at a coverage rate of 100 sq.ft. per gallon, but the material will not self level and the finish will not be as mottled and will be harder to manipulate with air and/or solvent.) As one person is spreading the first batch of material another person should be mixing the next batch. This helps with timing and keeping a wet edge between batches. There are different effects and ways to manipulate the metallic appearance.

**Blowing technique –** Approximately 30 minutes after mixing and spreading, manipulate Exotic Metals with an electric or cordless blower. Hold the blower 4 – 6" directly above the surface. Move it around randomly in a circular motion. The blower will wrinkle up the Exotic Metals and then the material will self level smooth again but will leave a unique design. For a more mottled effect, blow the Exotic Metals again after 50 minutes from the mixing and spreading time. If the material becomes tight and stops moving and wrinkling easily, stop using the blower. At this point the material is in the curing stage it will not self-level and will have a dimpled finish. **Wear spike shoes while walking in the material**

**Solvent technique –** For a more subtle finish with less mottling, 15 – 20 minutes after mixing and spreading Exotic Metals with an 1/8" notched squeegee, spray denatured alcohol over the entire surface. This will slowly move the metallic pigments and erase the squeegee marks. For a spotted or cratered effect, 40-50 minutes after mixing and applying Exotic Metals, drip or spray the denatured alcohol into the air so it comes down in drops. The bigger the droplets, the bigger the craters. Other solvents may work, but denatured alcohol works the best.

**Color blending technique –** Colors can be blended together in various ways. One method is mixing and spreading one color then pouring puddles, ribbons etc… of one or more colors over the top. It is common to use a 3/8" lint free/shed resistant roller to roll over the entire surface and blend these colors together. Another method of blending colors is to pour puddles and ribbons of various colors over the primer and use a magic trowel or flat rubber squeegee to spread and blend the colors together. Following the spreading of the material, use a 3/8" lint free/shed resistant roller to roll over the entire surface and blend these colors together.

100% solids epoxies are very hard and durable, but because of their hardness they scratch and dull over time. In order to keep the metallic finish, it is important to apply a thin topcoat sealer or maintain a sacrificial coat of floor finish or floor wax over the surface.

**Topcoat –** When dry (between 15 - 24 hours) apply a thin coat of Proline's Poly HD Urethane. If more than 24 hours passes before applying Poly HD Urethane over the Exotic Metals epoxy, sand the surface with 80 – 100 grit sandpaper on an orbital sander to scratch the epoxy. Then clean off the dust and wipe off the surface with acetone. Mix Poly HD Urethane 2 parts A resin to 1 part B hardener for 3 minutes. Dilute with 15%-20% xylene (acetone in cities where restrictions apply) and mix for an additional 2 minutes. Apply Poly HD Urethane thin at a coverage rate of 400 – 450 sq.ft. per gallon using a high quality, non-shedding ¼" nap roller. Please refer to the Poly HD Urethane Technical Data Sheet for detailed mixing and application instructions. Where there may be odor restrictions, instead of the Poly HD Urethane, 3-4 thin coats of a Floor Finish or Floor Wax can be applied with a microfiber applicator. Floor Finishes or Waxes must be maintained/re-applied every month or so in order to maintain a protective coat over the surface.

**COLOR OPTIONS:** 16 standard colors. Refer to Exotic Metals color chart.

**HOW SUPPLIED:** Exotic Metals is packaged in 1.5 and 3 gallon kits for convenient use in a 2:1 mixing ratio.

**STORAGE:** 60°F (15°C) – 80ºF (27°C)

**SLIP/FALL PRECAUTIONS:** Proline recommends using slip resistant granules in all outdoor applications where the Poly HD Urethane will be used as a topcoat sealer and on indoor applications that may be exposed to water, oil or other spills that may cause a slippery environment. Aluminum oxide granules #80 grit or courser may be broadcast into the prime coat to achieve the amount of slip resistance desired. It is the end user's responsibility to determine the suitability of a coating for their particular application. Proline nor its sales people will not be responsible for injury incurred in a slip/fall accident.

**NOTES:** Experimentation of colors and application methods is recommended, as the color of the actual product may differ. Test sections must be produced on each concrete surface. Even in a controlled environment, cements, aggregates, water content, and concrete curing methods will contribute to different results. Final color approval should be made with actual material and sealer selection; however, variation of even mock-up samples due to reproduction limitations should be expected.

CAUTION: KEEP OUT OF REACH OF CHILDEN. Before using or handling, read the Safety Data Sheet and Warranty. DO NOT TAKE INTERNALLY. Avoid contact with skin and eyes. Use only with adequate ventilation and use a respirator when exposure levels are above applicable limits.

WARRANTY: This product is not for public use and is intended for use by licensed contractors, experienced and trained in the use of these products. It is warranted to be of uniform quality within manufacturing tolerances. The manufacturer has no control over the use of this product, therefore, no warranty, expressed or implied, is or can be made either as to the affects or as results of such use. In any case, the manufacturer's obligations shall be limited to refunding the purchase price or replacing material proven defective. The end user shall be responsible for determining product's suitability and assumes all risks and liability.