



# INDUSTRIAL EPOXY FLOOR COATING

# APPLICATION INSTRUCTIONS PAGE 1

**Since we cannot control the preparation, mixture, moisture, climate conditions, and application method of the product, NO WARRANTY is offered. Should you have any questions please contact our Customer Service Department at 800-345-5789 or email [info@griotsgarage.com](mailto:info@griotsgarage.com).**

Thank you for selecting this quality Griot's product. Griot's Garage Industrial Epoxy Floor Coating is a water-based epoxy coating that will provide years of having fun in your garage!

**PLEASE NOTE:** Testing for an existing curing compound, sealer, or moisture in the concrete and proper preparation prior to coating are essential to ensure a durable, long-lasting finish. The prep process is very important and must be followed thoroughly. Please read and understand all instructions before starting this project.

## RECOMMENDED TOOLS AND MATERIALS

- Industrial Epoxy Floor Coating
- Paint mixer drill attachment
- Drill
- Paint roller handle
- 1/2" nap mohair rollers
- Paint roller extension pole
- 2" paint brush
- Muriatic acid, floor grinding machine or shot blaster
- A friend or neighbor
- Stiff bristled broom or a power floor scrubber/ buffer with a nylo grit style brush
- Extension cord(s)
- Pressure washer
- Plastic watering can
- Painter's tape
- Painter's plastic
- Two 5-gallon mixing buckets
- Floor squeegee
- Nitrile gloves
- Rubber boots
- Wood stir sticks
- Spiked shoes (optional)
- Non-slip additive (optional)

## STEP 1: TESTING FOR EXISTING CURING COMPOUND, CLEAR SEALER, OR MOISTURE

Testing concrete floor for an existing curing compound or sealer can be easily achieved by pouring a small mixture of 50% muriatic acid and water on the concrete. If bubbling or a hissing sound is heard then the concrete is raw and hasn't been sealed. Rinse off acid immediately with plenty of water. If no bubbling or hissing is heard, then a curing compound or sealer is present, and will need to be removed. This can be achieved with a chemical paint stripper, diamond grinder, or with a shot-blaster (step 5A). Hydrostatic pressure is water that is forced up through the concrete by the weight of water in the soil surrounding the foundation. This occurs when the water table is higher than the concrete slab and is increased by rainfall, sprinkler use, broken pipes, runoff from grading,

etc. Testing for hydrostatic pressure is one of the most important steps and allows you to properly determine if your concrete is a good candidate for coating. A simple way to determine if you have moisture migrating up through your concrete floor is to tape all sides of a piece of 1' x 1' plastic to the floor and leave it overnight. This should be done in multiple areas of the garage to get a good indication if moisture is present. If condensation forms on the underside of the plastic you will need to have the floor properly sealed prior to proceeding. Research a suitable moisture sealer or contractor to seal the concrete before continuing to prepare the floor for coating. Failure to properly seal moisture that is in the concrete will prevent a proper bond of the floor coating and it will eventually fail.

## STEP 2: ESTIMATING QUANTITY OF PRODUCTS NEEDED

Estimate the amount of concrete cleaner, muriatic acid and floor coating depending on your square foot-age. When purchasing a concrete cleaner, make sure that it is designed to remove oil and grease stains like our Oil & Grease Cleaner. It is imperative that the cleaner effectively remove all embedded oil and grease as this is crucial to a proper bonding of the floor coating. Please follow the manufacturer's recommended mixing and application instructions. If the concrete is etched with acid, two coats of floor coating are required. If media-blasting or diamond grinding is used to etch the concrete, three coats of floor coating are required. When you receive your floor coating check the batch code on the side of the container as the color may vary slightly from batch to batch. If you have more than one batch code, mix them in one large bucket or "box" them together so that the color will be consistent.

## STEP 3: MASKING THE PERIMETER OF THE GARAGE

Tape off the perimeter of the garage with painter's tape along the bottom of the wall. Then use painter's plastic to cover at least two feet above the garage floor. This will keep the water and muriatic acid off of doors and sheetrock.

## STEP 4: CLEANING THE CONCRETE

This step is crucial prior to acid-etching the floor. If you are shot-blasting or diamond grinding the floor, proceed to step 5a. All foreign material (oil, grease, brake fluid, tar, paint,



# INDUSTRIAL EPOXY FLOOR COATING

# APPLICATION INSTRUCTIONS PAGE 2

etc...) has to be removed prior to acid-etching to ensure a good mechanical bond to the concrete. Failure to do so will result in the coating sticking to the roller cover and not to the floor while applying. This is why the preparation of the floor is vital to ensure years of durability. Oil and Grease Cleaner is available through Griot's Garage and comparable products are also readily available in your local hardware store. Sweep or vacuum prior to cleaning and follow the manufacturer's recommended instructions. Rinse thoroughly with a pressure washer following cleaning.

## STEP 5: ETCHING THE CONCRETE

### a. Etching the concrete by shot-blasting or diamond grinding

Concrete should be shot-blasted, diamond ground or acid-etched to properly open the "pores" of the concrete, allowing the coating to properly bond. Shot-blasting and diamond grinding are the most effective methods to prepare a garage floor. The proper equipment for these methods can be rented, or a local contractor can provide these services. These methods will require an additional coat of coating (three coats instead of two coats) to fill-in the open pores and texture left behind by this more aggressive preparation method. See step 5B. below for another etching option.

### b. Etching the concrete by acid etching with muriatic acid

Acid-etching with muriatic acid is the most user-friendly option and will require two people to properly etch the floor. A floor scrubbing machine with a nylo grit brush is an extremely effective and efficient method or you can use a stiff bristled broom, although it will be more labor intensive. (Reminder: Acid etching is performed once "Step 4 - Cleaning the Concrete" is completed.)

1. Pressure wash the floor to remove any dust or debris prior to acid-etching.
2. Mix muriatic acid in a 5 gallon bucket following manufacturer's dilution rate with water.
3. Pour diluted solution into a plastic watering can and start from the back of your garage working forward in small sections (this is where it is beneficial to have a friend or neighbor helping).
4. Once acid is poured onto the first small section, work into the concrete with a floor scrubbing machine or stiff bristled broom.
5. Allow the acid to sit on the surface for 5-10 minutes. You will notice a mild foaming action while the acid is working. While this section is being etched you can move to your next section. Note: Do not allow the acid solution to dry on the concrete. Apply more acid or use a small amount of water to keep the surface wet at all times.

6. Once the 5-10 minutes have passed completely rinse that first section with light water pressure from a hose.
7. Continue this process until the entire floor is properly etched. Be sure to keep the entire floor surface wet until the entire floor is etched.
8. Once the entire floor is etched, pressure wash the whole floor at least two times to completely and thoroughly remove any acid, working from the back of the garage to the front. Note: Neutralizing the acid is not recommended after acid-etching as it will cause the floor coating to not adhere to the concrete.
9. Once the floor is completely cleaned by pressure washing, use a floor squeegee to remove any standing water. The concrete can be damp, but should not be wet when it is time to start applying the coating.

## STEP 6: MIXING THE EPOXY FLOOR COATING

The floor coating once properly mixed is comprised of three components. Part A is the uncatalyzed coating, Part B is the catalyst (or hardener) and water (or reducer). Mix only in the amounts that can be used in a 2-3 hour period as the coating will start to thicken and not roll out as well. In very hot weather (above 100°F) it is recommended to mix smaller batches.

1. Pre-mix Part A before adding Part B. Mix Part A for at least one minute with a stir stick making sure to scrape the bottom and sides of the container mixing any settled pigment to ensure uniform color.
2. Add Part B to Part A using a stir stick to remove all of Part B from the sides and bottom of the container as the hardener is very thick and sticky.
3. Mix Part A and B on low speed with a paint power mixer attached to a drill. Add a half or a full quart of water using the empty quart container from Part B per gallon of coating mixed. An acid etched floor typically should be reduced with a quart of water for the coating to penetrate deeper into the pores. If the floor is media blasted or grinded, a half quart of water will be sufficient. The addition of water also helps the coating flow and spread easier as the coating is very thick before water is added.

## STEP 7: ADDING AN ANTI-SLIP FINISH (OPTIONAL)

If you would like to add an anti-slip finish you can purchase an additive that is found in the paint department from your local hard-ware store. This additive should be added to the first coat of floor coating and after STEP 6-3: Follow the manufacturer's recommendation for proper mixing ratio per gallon of coating. When adding this additive it is very important to stir the coating every time before adding coating to the roller.

08.26.2021



# INDUSTRIAL EPOXY FLOOR COATING

# APPLICATION INSTRUCTIONS PAGE 3

## STEP 8: APPLYING THE COATING (FIRST COAT)

1. Paint the perimeter of the garage floor with a 2" paint brush.
2. Begin rolling the floor coating starting in the back corner of the garage working left to right and then towards the front of the garage.
3. Work in sections approximately 4' wide by 4' deep rolling in one direction (left to right) and then another (front to back) to ensure uniform coverage.
4. Once the floor is completely coated, lower the garage door about a foot above the coated floor. Use painter's tape and plastic to prohibit any dust, leaves, or animals from walking on the freshly coated floor while it cures overnight.

## STEP 9: APPLYING THE FINAL COAT

Allow the first coat to dry for 12-24 hours before applying the second coat. The first coat should be dry to the touch and not leave any footprints when walked on. If it does, allow to dry longer until you are not leaving footprints. This can take up to 48 hours if the conditions are very damp or cool. You can also use spiked shoes to walk on a floor that is still dry to the touch yet leaves foot-prints. This is especially helpful when putting more than two coats on a floor as the second coat may not be cured enough to walk on without leaving footprints. Do not let the coating cure longer than 72 hours between coats of coating; if it does, the surface should be lightly sanded and any dust vacuumed up before recoating. While applying the final coat, work quickly and do not attempt to roll over material that has begun to set-up or cure as a change in color will result. Allow the final coat to dry for at least 18-24 hours before foot traffic and at least 7 days before storing cars or moving heavy objects back onto the floor.

## STEP 10: CLEAN-UP

Because the floor coating is water-based, clean-up is simple with warm water and soap. If coating has dried, use mineral spirits to help clean brushes, rollers and paint trays.

## USAGE SPECIFICATIONS QUICK REFERENCE

- Required minimum air and concrete temperature of 50°F
- coating mixing ratio when acid etched (coating : Hardener : Water) = 4 parts A : 1 part B : and 1 part Water
- Coating mixing ratio when media blasted or diamond ground (Coating : Hardener : Water) = 4 parts A : 1 part B : and 1/2 part Water
- Required reduction percentage with water = (15 - 20%)
- Surface preparation = Media-blasted, diamond grinder or muriatic acid etched
- Minimum new concrete slab cure time = 7 days
- Coverage with two coats = 100-175 sq. ft.
- Coverage with three coats = 67-117 sq. ft.
- Working time once part A and B are mixed (@77°F) = 2 - 3 hours
- Time until coating is dry to touch\* (@77°F) = 2 hours
- Time until coating is ready for next coat\* (@77°F) = 12 - 18 hours
- Time until coating is lightly cured\* (foot traffic) = 18 - 24 hours
- Time until coating is fully cured\* (heavy cabinets, machinery, vehicles, etc) = 7 - 10 days

Higher temperatures and lower humidity will accelerate cure times. Lower temperatures and high humidity will lengthen cure time.



*Have fun in your garage!*

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