**ARMOR GARAGE INC.**
*Manufacturers of High Performance Industrial Coatings*

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# Industrial Epoxy Flake Floor

## Installation & Preparation Guide

This guide walks you step-by-step through the installation of your ArmorGarage Industrial Epoxy Flake Floor system. This is a 3-layer industrial system consisting of a primer, 100% solids pigmented epoxy base coat with decorative flakes, and a military grade clear topcoat. Proper surface preparation and following these instructions carefully are critical to a long-lasting, professional-looking floor.

**KEEP THIS GUIDE NEAR YOU WHILE YOU WORK.**
The application process is very straightforward. Should you have any questions at any time, please contact us via phone during business hours at **866-532-3979** or via email after hours and weekends at **support@armorgarage.com**. Help is always available!

**Always read this entire guide before using any materials.**
**Please check all materials received against the packing list to ensure you received everything.**

## 1. BEFORE YOU START

**You will need:**

- 9" roller frame and extension pole
- Stiff bristle shop broom
- Measuring containers for epoxy mixing
- Squeegee (supplied), rollers (supplied), small brush (supplied)
- Pressure washer (recommended) or garden hose with nozzle
- Xylene or mineral spirits for cleanup. Do not let epoxy dry on anything it is not supposed to. After curing, removal can only be done via mechanical means.

**Temperature & Conditions:**

- Apply between 55–95°F. Relative humidity must be 85% or less.
- Store materials indoors above 60°F the night before use.
- Concrete slab temperature must be at least 55°F at time of application.
- It is acceptable if temperatures drop below 55°F at night after the coating has been applied and cured for 8 hours. Too low of a slab temperature can cause the curing process to stop.

**Moisture Check:**

If moisture is suspected, tightly tape a 2’ x 2’ or larger piece of plastic to the slab and leave it for 24 hours. If condensation forms underneath, contact ArmorGarage before proceeding.

## 2. SURFACE PREPARATION (MOST IMPORTANT STEP)

### Step 1 – Clean & Remove Loose Material

Remove everything from the floor. Scrape or grind off any loose paint, drywall compound, glue, old mastics, fiberglass fibers, or raised areas. Sweep and vacuum thoroughly. Pressure wash if possible.

## Step 2 – Degrease

Use a quality concrete degreaser on oil spots, tire marks, and greasy areas. Scrub vigorously with a stiff broom. Rinse thoroughly and repeat in stubborn areas until water no longer beads or shows an oily sheen. You can use Liquid Tide detergent or Dawn Dish detergent scrubbed in with Muriatic acid to remove oil & grease stains. You may have to repeat depending on how deep the stain is.

## Step 3 – Crack Repair (If Needed)

Repair cracks with ArmorGarage crack & joint repair compound for large cracks and holes, or Instant Crack Repair for smaller cracks, divots, and holes according to product directions. Apply the crack & joint compound before etching or grinding and let fully harden overnight. Apply the instant crack repair after the floor has been prepped. You can apply the primer or epoxy right over the instant compound without having to wait for it to cure.

## Step 4 – Etching

Etching opens the pores of the concrete so the epoxy can bond properly. This can be done with the supplied etching powder or muriatic acid where required. Work in small sections (about 250 sq ft):

- Wet the section of floor with clean water.
- Mix 1 lb etching powder to 3 gallons of water or 1 gallon of muriatic acid to 3 gallons of water and mix thoroughly.
- Apply etching solution evenly over wet area and scrub with a stiff broom until it foams.
- Let it work for 5–6 minutes.
- Rinse to keep floor wet — do not let floor dry but do not over-rinse to cause runoff. To be safe, wet down driveway or any vegetation the etch solution will come in contact with.
- Repeat if concrete does not change appearance or if water still beads. If concrete is new or was power troweled smooth, you MUST etch twice. If diamond grinding, you don't have to etch.
- If etching twice, lightly rinse off first etching and repeat the process. Neutralize as per below after the second etching.
- Neutralize the etch with the supplied TSP powder — sprinkle over floor evenly at 1 lb/1000 SF, lightly scrub in, then rinse again thoroughly.

Properly etched concrete should resemble new concrete and feel slightly rough to the touch. Water should soak in quickly instead of beading on the surface.

## Step 5 – Drying

Allow the floor to dry for at least 24 hours, preferably 48 hours. Use fans and ventilation if needed. The slab must be completely dry before applying epoxy.

## 3. APPLYING THE PRIMER

The Industrial Epoxy Flake Floor system includes a primer as a standard component. The primer ensures maximum adhesion and prevents outgassing on porous substrates.

- Mix Part A & Part B in a **1:1 ratio**.
- You can pour onto the floor in a bead or use a roller pan. Roll out like regular paint.
- We recommend mixing half gallon of A with half gallon of B. Use the bucket the epoxy came in for mixing.
- You can reuse the bucket for the epoxy after the primer has hardened in it.
- When done with the mixer, spin at high speed inside bucket to remove excess primer so mixer can be reused for epoxy.
- Primer should be dry in **5–6 hours** and should not leave a fingerprint when you press your thumb into it.

**DO NOT LET MORE THAN 24 HOURS PASS BETWEEN PRIMER AND EPOXY.**

## 4. MIXING THE EPOXY

**IMPORTANT: NEVER MIX THE ENTIRE KIT AT ONCE. Always mix in small, manageable batches. Do not mix in direct sunlight. DO NOT LEAVE MIXED EPOXY IN THE BUCKET. THIS IS REAL MILITARY GRADE EPOXY THAT WILL TURN TO CONCRETE IN 10 MINUTES IF YOU DO.**

**Batch Preparation:**

- If using multiple full kits, first combine all Part A components together in a clean container for color uniformity.
- We recommend mixing 80 oz Part A to 40 oz Part B for each person rolling.
- Stir Part A and Part B separately, scraping sides and bottom.
- Mix epoxy in a **2 Parts A : 1 Part B** ratio by volume in the mixing bucket that contained the Part A & B epoxy.
- Mix with a drill and supplied mixing wand for a full **2.5 minutes**, scraping sides and bottom as you go.
- Working time is approximately **30 minutes at 75°F** (less time at higher temperatures).

## 5. APPLYING THE EPOXY BASE COAT

**General Application Pattern:**

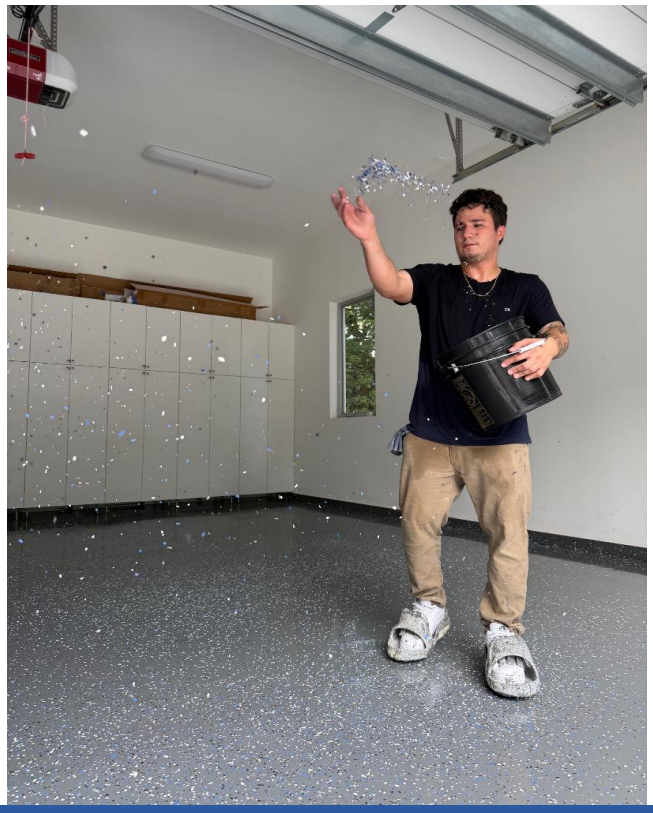
- Start at the farthest corner and work toward the exit.
- Pour mixed epoxy in a straight bead from left to right across the floor section.
- Use the supplied magic squeegee to pull the epoxy evenly across the surface until no material remains under the blade.
- Back-roll the epoxy with the supplied roller to further spread out the epoxy and even out the finish.
- Maintain a wet edge at all times to avoid lap marks.
- Use a brush and small batch of epoxy to cut in along walls, edges, and around obstacles.

Each Industrial Epoxy Flake Floor kit is designed to cover the stated square footage at the proper thickness. If you are running short or have large excess, **STOP** and contact ArmorGarage before continuing.

## 6. APPLYING DECORATIVE FLAKES

- While the epoxy is still wet, broadcast color flakes by tossing them upward and outward, allowing them to fall randomly. See image below.
- Do not throw flakes directly at the floor; this causes clumps and uneven patterns.
- As an alternate method, use a plastic 1-gallon handle jug with 3/8”–1/2” holes drilled in the bottom and use as a shaker jug to evenly disperse the flakes.
- Apply flakes lightly at first and add more as desired.
- Industrial Epoxy Flake Floor is typically applied at medium to heavy coverage (70–95%) depending on desired look.

- Leave a small, un-flaked wet edge along your working line so the next section can blend seamlessly.



## 7. MILITARY GRADE TOPCOAT APPLICATION

The Industrial Epoxy Flake Floor system includes the military grade clear topcoat as standard. This topcoat provides maximum abrasion resistance, chemical resistance, and UV stability.

**Before Topcoating:**

Allow the epoxy base coat to dry until it is dry to the touch and no longer tacky (typically 8–14 hours, depending on temperature and humidity). Lightly scrape any standing or sharp flakes off with a floor scraper or stiff broom and vacuum the floor. Epoxy should be rock hard and not leave a fingerprint when pressed into it.

**Application:**

- Only **one coat** is required when using the military grade topcoat.
- Mix topcoat according to the label directions for 2 minutes.
- Non-skid additive is added at a rate of **one pack per gallon**.
- Always use a roller pan when applying the topcoat.
- Pour into a roller tray and apply with a 3/8” nap roller in thin, even coats.
- Stir frequently during application to keep non-skid additive suspended. Remix when refilling roller pan.

**DO NOT LET MORE THAN 20 HOURS PASS BETWEEN EPOXY AND TOPCOAT.**

## 8. CURING & RETURN TO SERVICE

- Light foot traffic and moving belongings back in is typically allowed after **6–8 hours**.
- Wait **2–3 days** before driving vehicles on the floor, depending on temperature and humidity.
- The coating should feel hard and fully cured within **48–72 hours at 75°F**.
- If the surface remains soft or easily marked after this time, contact ArmorGarage for assistance.

## 9. CLEANING & MAINTENANCE

- Clean the floor with mild soap (non-bleach) and warm water as needed.
- Harsh solvents or strong chemicals should not be needed — everything should rinse right off.
- Do not drag sharp metal objects across the surface.
- For stubborn marks, use a soft scrub pad and mild cleaner like Simple Green. This should rarely be needed.
- If you happen to scratch the floor, scratches can easily be removed by applying a light coat of the topcoat. Contact us for a small touch-up kit.

## 10. TECHNICAL SUPPORT

ArmorGarage Industrial Epoxy Flake Floor systems are designed for easy application by first-time users. If you have any questions at any stage of your project, please contact us before proceeding.

**Email (urgent install help):** support@armorgarage.com (after hours and weekends)

**Phone:** 866-532-3979 (Mon–Fri, 9:00 AM – 5:30 PM EST)

**Thank you for choosing ArmorGarage.** You now have the finest industrial epoxy flooring available. Your new epoxy floor will provide many years of service and a long-lasting, showroom-quality appearance.

See the ‘Need To Know’ section on our website for additional helpful information and application videos. If unsure about anything, please contact us at any time.