ARMOR GARAGE
Manufacturers of High Performance Industrial Coatings

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ARMORGARAGE MILITARY-INDUSTRIAL

EPOXY FLOOR SYSTEM — APPLICATION INSTRUCTIONS

RESOURCES **Technical Data Sheet (TDS):** Download PDF **Safety Data Sheet (SDS):** Download PDF

SYSTEM OVERVIEW

The Military-Industrial System (MIS) is a three-layer, roll-on epoxy floor coating system consisting of a penetrating primer, a 100% solids high-build epoxy base coat, and a military-grade polyurethane topcoat. Application is straightforward when these instructions are followed carefully.

Layer	Product	Mix Ratio	Coverage	Recoat Window
1. Primer	ARM144X (or ARM015X Low VOC)	1:1 by volume	250–270 sf/gal	4–6 hrs
2. Epoxy	ARM707X 100% Solids	2:1 (A:B) by volume	175–185 sf/gal	8–12 hrs
3. Topcoat	ARM356X Military Grade	Single component	400–500 sf/gal	—

STEP 1 — SURFACE PREPARATION

1A. Wash the Floor

Power washing is preferred. Floor must be clean of ALL dirt, oil, and grease stains before etching. Liquid Tide scrubbed in with straight muriatic acid is effective for removing oil stains. Epoxy will not adhere properly to oil, grease, or other stained areas.

1B. Acid Etching

Mix the etch solution at a **3:1 water-to-acid ratio**. One gallon of mixed etch solution covers approximately 400 sf. Mix one batch per person etching. Disperse the mixed solution evenly over the **wet** floor and scrub in with a stiff-bristle shop broom.

Let stand for 3–5 minutes. **Do not allow the etch solution to dry on the floor.** Rinse thoroughly with fresh water. Work in sections, rinsing each section onto a non-etched area when possible. Once comfortable with the process, you can increase section size as long as the solution does not dry before rinsing.

IMPORTANT: Rinse off ALL acid solution completely. Failure to thoroughly rinse the etch solution can result in improper curing and bonding of the epoxy, which is not covered under warranty.

1C. Second Etch (if needed)

For new concrete or very dirty floors, apply a second etching using a **2:1 muriatic acid solution** to ensure the floor is clean and the pores are fully opened. For previously coated floors, if the surface does not have a slightly grainy feel after the first etch, re-etch or use a floor buffer with a black pad to scuff the surface.

If the previous coating is peeling or flaking, remove it completely by grinding or chemical means before proceeding. Order the Bonding Primer in lieu of standard Primer when coating over a previous coating. Let Bonding Primer cure for a full 24 hours before applying epoxy.

1D. Neutralize & Test

Sprinkle TSP powder evenly over the wet floor (1 lb per 1,000 sf), brush in, and rinse thoroughly. This neutralizes any acid residue.

1E. Readiness Test

The properly prepared floor should feel like an emery board when you rub your hand over it. Sprinkle water on the surface — if water beads up, re-etch or buff with a black pad until the water absorbs.

1F. Drying Time

Let the floor dry for a **minimum of 24 hours** (48 hours is best). It can take 48+ hours depending on temperature and humidity. The floor must be completely dry before applying primer. **Minimum slab temperature for proper curing is 60°F at all times.**

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STEP 2 — LAYER 1: PRIMER APPLICATION (ARM144X)

The primer is color-coded and labeled **PRIMER**. It uses a **1:1 mix ratio** (Part A : Part B by volume). Do not confuse with the epoxy, which uses a 2:1 ratio.

2A. Mixing

Stir each can separately, then combine Part A and Part B. Mix thoroughly for 3 minutes on medium speed using the supplied mixer. **Mix only 1 gallon of combined material at a time.** If multiple people are rolling, mix 1 gallon per person and split into separate pails.

> **LOW VOC STATES:** IL, NJ, MD, VA, NY, CA, RI, KY, MA, ME, NH, VT, CT, OH will receive ARM-015X Low VOC primer at a 4:1 ratio. With the 2-gallon set, pour the small can into the gallon can and mix. With the 5-gallon set, mix 1 gallon at a time.

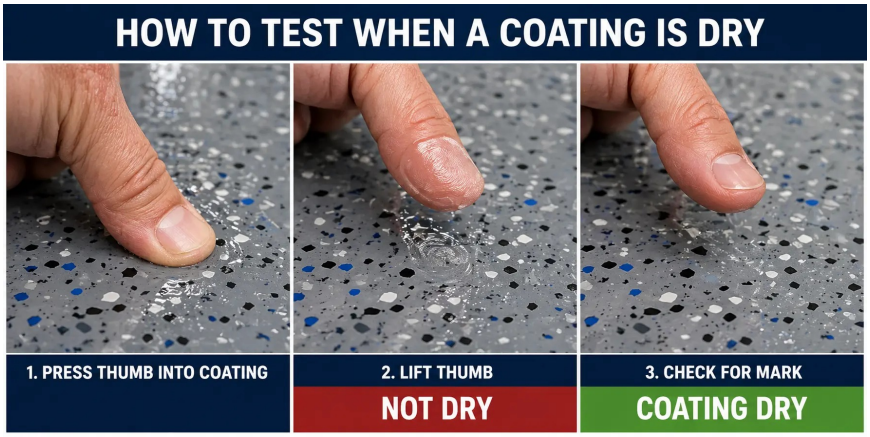
2B. Application

Pour primer into a roller pan and roll on an even, thin coat as you would conventional paint. Apply to the clean, dry, etched floor.

> **TIP:** If you ordered the Instant Crack Repair Kit, fill cracks right before priming — no need to wait for the compound to harden. If you ordered a Crack & Joint Repair or Patch Kit, apply it prior to priming and let it cure overnight.

2C. Dry Time

Let the primer dry to the touch — approximately 4–8 hours. To test, press your thumb into the coating; it should not leave a fingerprint.



Visual reference: How to test when the coating is dry between layers.

STEP 3 — LAYER 2: EPOXY APPLICATION (ARM707X)

> **CRITICAL: Apply epoxy between 10–20 hours of primer application. This is not store-bought epoxy — this is pure Military Grade Epoxy with different curing characteristics than water-based or high-solids products. Follow these instructions exactly.**

3A. Pre-Mix Preparation

Stir each can of epoxy (Part A and Part B) separately with paint stir sticks for 2–3 minutes. If you have multiple sets, mix all Part A cans together first to blend the pigments and ensure even color.

3B. Mixing

Mix at a **2 Parts A : 1 Part B ratio by volume**. Use calibrated containers for accurate measurements. Scrape measuring containers completely into the mixing bucket. Mix combined Part A & Part B for 2–3 minutes with the supplied mixer on medium speed. Move the wand up, down, and around the sides. Epoxy should be uniform in color with no streaks.

If transferring to smaller working pails, mix a second time in the working pail. **Rule of thumb: mix one gallon per person rolling.** When doing larger floors, one person should be in charge of mixing to avoid confusion.

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DO NOT MIX ALL THE EPOXY AT ONCE. This will cause the curing process to speed up and the epoxy to prematurely harden. Premature hardening is not covered under warranty. Mix in multiple batches — approximately 3 batches per 3-gallon set. Be accurate in measurements; otherwise a proper cure may not occur.

3C. Application

Pour the mixed epoxy in a **bead directly onto the floor** (do not leave in bucket and do not use a roller pan; do not pour in a puddle). Use the notched squeegee to spread the epoxy evenly, then roll over with the supplied 1/4" nap rollers to smooth and spread at the edges.

Each batch should be applied within **30–40 minutes** of mixing. Following the batch guidelines above, each batch should take 15–20 minutes to apply, giving plenty of safety margin. As you mix each new batch, it will reactivate the epoxy on the rollers, squeegee, and mixer.

Coverage rate: approximately **525–550 sf per 3 gallons** of mixed epoxy.

3D. Cure Before Topcoat

Let the epoxy cure overnight. It should be dry and hard to the touch and not leave a thumbprint before applying the topcoat.

CLEANUP: Use xylene or similar solvent while the epoxy is wet. Once dried, it can only be removed by grinding. Dispose of rollers and other items with epoxy immediately after use — do not set them down on any surface, as they will be permanently bonded if the epoxy dries.

STEP 4 — LAYER 3: TOPCOAT APPLICATION (ARM356X)

Apply topcoat between 8–20 hours after epoxy application. All previous layers should be hard to the touch and leave no fingerprints before applying the next layer. The topcoat can is labeled with a **Red Label: "Military Grade Topcoat."**

4A. Mixing

ARM356X is a single-component product. Simply stir the product in the can with a paint stick. No additional mixing is required.

4B. Application

Use a roller pan to roll the topcoat onto the epoxy like conventional paint. Coverage: **400–500 sf per gallon**. Do not apply at less than 400 sf/gal — too thick a layer can cause curing issues. A thicker layer is unnecessary as this topcoat is extremely hard and durable. Work in a systematic pattern to ensure full coverage of all the epoxy.

4C. Non-Skid Additive (Optional)

If a non-skid surface is desired, mix the UltraWear additive into the can while initially stirring:

Grip Level	Amount	Typical Use
Standard Grip	1 pint per 1.5 gallons	General floor areas
Reduced Grip	1/2 – 3/4 pint per 1.5 gal	Low-traffic areas
Extra Grip	1 full unit per gallon	Entryways, loading docks

Stir the can very frequently during application, as the non-skid additive tends to settle to the bottom. Failure to stir can result in blotches in the topcoat finish.

4D. Cure Times

Traffic Type	Wait Time
Foot Traffic	7–8 hours
Vehicle / Light Forklift Traffic	48 hours
Heavy Forklift Traffic	3 days

CARE & MAINTENANCE

You now have the finest and most durable epoxy floor finish available. Care and maintenance is simple:

• In most cases, a simple garden hose rinse is sufficient to clean the floor.

• For very dirty areas, a mild cleaning agent such as Simple Green is all that should be needed.

• The topcoat resists abrasion, wear, scratching, and staining. Spills — even paint or other sticky substances — should wipe off easily.

• The topcoat is resistant to all vehicle fluids including battery acid.

• Spills of solvents such as carburetor and brake cleaners should be wiped up as soon as possible. These are highly corrosive and may leave a stain if left for an extended period.

LONG-TERM RENEWAL: Depending on the type and amount of traffic, the topcoat may eventually start to show wear. At that point, simply roll on another layer of topcoat to restore the floor to like-new condition. Another layer of epoxy is not required — the epoxy base should last indefinitely. Only recoat the topcoat when the original has been worn through from excessive heavy traffic.

QUICK REFERENCE — APPLICATION SUMMARY

Step	Product	Mix Ratio	Coverage	Wait Before Next Step
1. Prep	Acid Etch + TSP	3:1 water:acid	400 sf/gal etch	24–48 hrs to dry
2. Primer	ARM144X (or ARM015X)	1:1 (A:B)	250–270 sf/gal	4–6 hrs (dry to touch)
3. Epoxy	ARM707X 100% Solids	2:1 (A:B)	175–185 sf/gal	Overnight (hard to touch)
4. Topcoat	ARM356X Military Grade	None (stir only)	400–500 sf/gal	7–8 hrs foot / 48 hrs vehicle

SUPPORT: Questions before, during, or after installation? Call **866-532-3979** | After hours: **support@armorgarage.com** | **www.armorgarage.com**

NOTICE TO BUYER: We warrant that our products are manufactured to strict quality assurance specifications. Such information is not a representation or warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED. Our liability is limited to the net selling price or replacement of our product, at our option. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.