



Application Guide:

Hi-Build Epoxy Pool Paint

1. Overview

Ramuc Hi-Build Epoxy offers the longest lasting protection for concrete, plaster, gunite, and fiberglass swimming pools, slides and spas. With its hard, tough, durable finish, epoxy provides unsurpassed stain, chemical, and abrasion resistance. Packaged in an easy-to-use 1-to-1 mix ratio, Hi-Build Epoxy rolls easily and builds up to 8 mils dry per coat rendering “smoothing” qualities on rough surfaces. Epoxies are the coating of choice for indoor pools, spas, and whirlpools. All epoxy films will chalk (break down from the UV rays of the sun and water chemistry) over time. This is a natural degradation or “cleansing” of the top surface of the epoxy film. For compatibility purposes, the existing paint on previously painted surfaces of a pool or spa should be determined before painting. Aged plaster should be checked for integrity. Check for hollow or weak/crumbling plaster by using a ball-peen hammer or any other comparable method. Perform repairs to the plaster before painting.

2. Supplies Needed

a. Cleaning Products:

Clean and Prep Solution by Ramuc, an environmentally safe product that cleans, etches and neutralizes in place of the three-step process and a 3500 psi. power-washer.

Or use the traditional 3 step cleaning method-
Tri-sodium phosphate (TSP)
Muriatic or sulfamic acid solution
High-pressure (3500 psi.) power washer

b. Condensation test material:

Several two-foot square pieces of transparent plastic
Duct tape

c. Painting supplies:

- Abrasion supplies to create a medium grade sandpaper finish
- Sandpaper #80 grit, power sander, sanding blocks, wire brush

- No thicker than 3/8" nap mohair or lambskin roller used for solvent based paints.
- DO NOT use a cardboard cored roller.
- Paint brush for detailing
- 5-gallon bucket for boxing (intermixing) paint
- Mechanical mixer; a paddle attachment to a power drill
- Ramuc Thinner or xylene for thinning paint if airless spraying, and cleaning-up tools and spills

d. Joint or crack filler:

Hydraulic cement or Vulkem 116 polyurethane sealant or any other submersible polyurethane sealant. Do not use silicone-based products, as paint adhesion will be adversely affected. Vulkem 116 must be top coated before being submersed in chemically treated water.

3. General Surface Preparation

Plaster, concrete, or gunite surfaces should be tested for integrity and soundness. Pool paint is not a Band-Aid for weak surfaces. Should any minor repairs need to be made, such as hydraulic cement patch or crack joint filling, do them at this time. Follow the manufacturer's recommendations.

Previously painted epoxy or bare fiberglass surfaces need to be abraded with 60 – 80 grit sandpaper to create surface profile, especially is the surface is exceptionally hard. Power wash the surface to remove loose paint and dirt. Care needs to be taken when recoating epoxy surfaces to remove all tightly adhering residual chalk.

Prepare the surface thoroughly with **Clean and Prep Solution** by Ramuc, following the directions carefully. *This product takes the place of the TSP/ACID/TSP three-step process described as follows:*

Scrub the entire pool surface with a soap/tri-sodium phosphate (TSP) solution to remove all dirt, oils, and chalk. All surfaces should then be acid etched with a 15-20% solution of muriatic or sulfamic acid to remove mineral deposits and to achieve a medium sandpaper grade finish on bare concrete or plaster surfaces. Neutralize/rinse with TSP and water.

CONDENSATION TEST - After all cleaning is completed, allow the pool surface to dry. Average dry times vary regionally and are dependent upon the porosity of the surface. It is recommended to wait 5 dry days and then perform a condensation test to determine surface dryness.

- Tape 2' x 2' pieces of transparent plastic to areas in the deep end wall, floor and several other areas on the pool.
- Wait about 4 hours to determine if condensation as formed underneath the plastic.
- If condensation is evident, the surface is not dry enough to paint.
- Remove the plastic and wait 24 hours to perform the test again and continue until no condensation forms. This ensures the surface is dry enough to apply paint.

4. Mixing

Hi-Build Epoxy is self-priming; no other type of primer is recommended or should be used.

Mechanically mix each component then mechanically mix combined components in the ratio of 1:1 by volume. Mixing with a stir stick is not recommended. Once mixed material must be allowed to stand for at least 20 minutes at 65° F and above. Allow to stand 45 minutes at temperature of 50 to 65°F to ensure chemical reaction before using. If material is used too soon after mixing or if pool is filled too soon after application yellowing or loss of gloss can occur. If more than one-gallon kit is used at a time mix several gallons together.

5. Application

Use no thicker than a 3/8" nap roller used for solvent based paints. DO NOT use rollers with cardboard cores. Apply at the recommended coverage rate. Ideal air temperatures for application are between 50° and 90° F. Surface temperature should be at least 50° F, no more than 90° F. Overnight curing temperatures must be at least 50° F or the paint will not cure properly causing an "oily" feel to the top of the paint. Do not paint when rain is imminent. New concrete and plaster surfaces must be cured a minimum of 28 days prior to painting

6. Cure Rates

Outdoor pool: 5-7 dry days

Indoor pool: 10-14 days with adequate ventilation

If rain occurs during the curing process, allow an extra day of dry time for each day of rain. Rain, moisture, or excessive humidity can cause blistering, color blushing, and the finish could be altered.

Dry time to touch: 6-8 hours

To recoat: 16-72 hours. If second coat is applied beyond 72 hours, the first coat must be abraded/sanded prior to applying second coat.

Primer: All Ramuc paints are self-priming

Fill outdoor pools after at least 5 dry, sunny accumulative days

Fill indoor pools after at least 10 days with proper ventilation

7. Coverage

150-200 square foot per mixed KIT on bare, sandblasted, or rough surfaces.

300-350 square foot per mixed KIT on recoats.

(Actual coverage will vary and is dependent upon the texture and profile of the surface.)

Minimum dry film per coat: 5 mils dry (7.5 mils wet)

Maximum dry film per coat: 8 mils dry (12.5 mils wet)

Pot life – use life: 3 hours (@ 70°F and 50% relative humidity)

Clean-up: Ramuc Thinner or xylene

Finish: Satin

8. Technical Data / Spray Information

Weight/gallon: 12# mixed
Solids by weight: 80% ± 2% mixed
Solids by volume: 66% ± 2% mixed
V.O.C.: Does not exceed 340 g/l
Airless – 2000-2300 psi: Tip Size: .015-.019

9. Special Situations

Blushing-Fading-Chalking

The Cause:

- The pool is filled too soon (see cure rates) before the paint is completely cured, causing a blush over the surface which looks like fading or chalking.
- Super-chlorinated water may cause a bleached-out look.
- The shock of calcium hypochlorite can cause a white, bleached look to the paint film, leaving a whitish deposit.
- A chalky substance can be created by over treating the water with shock, bromine, ozone and ionization, possibly causing the paint to break down. We suggest a natural polymer product or clarifier that can reduce the chalking problem.
- Iron in the water from rust in the filter system may leave deposits and stain the film.
- All epoxies will chalk to some degree (a very tight chalk)due to exposure to UV rays of the sun.
- **Follow manufacturer's recommendations for proper water chemistry.**

The Solution:

- Scrub surface using a solution of soap and water. This will remove surface dirt and deposits.
- Wipe with a weak (2-3%) solution of muriatic acid. Acid will remove iron stains without damaging the paint film.
- Solvent wipe affected areas with Ramuc Thinner or xylene
- Check your pool water chemistry daily or weekly for calcium hardness, total alkalinity, and balanced pH.
- Extremely corrosive water can ultimately cause deterioration or breakdown of a paint film over a period of years.
- Be sure the newly painted outdoor pool surface dries at least five dry, sunny days and/or 10 days for an indoor pool before filling.

Blistering

The Cause:

- Using a nap roller thicker than 3/8" nap draws air into paint film.
- Applying paint too thick.
- Painting on a damp surface.
- Painting in direct sunlight can cause vapor (or heat) blisters.
- Filling the pool before the paint is cured.
- Incompatible paints.

The Solution:

- Scrub off blisters; wipe lightly with RAMUC thinner. Apply a coat of Hi-Build to blend in for uniformity if needed.
- All painted surfaces must be dry prior to painting with Hi-Build.
- Paint must cure for 5 dry, sunny days on an outdoor pool and 10 days on an indoor pool.