

## APPLICATION GUIDE: HI BUILD EPOXY SUPERIOR LONG LASTING TWO COMPONENT EPOXY AQUATIC COATING



### 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 it provides unsurpassed stain, chemical, and abrasion resistance. Packaged in an easy-to-use 1:1 mix ratio, Hi Build Epoxy rolls easily and builds up to 200 microns 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:*
  - Ramuc Clean and Prep Solution™. An environmentally safe product that cleans, etches and neutralises in lieu of the three-step process and a 250 bar power washer.
- b. *Condensation Test Materials:*
  - Several 600mm x 600mm square pieces of transparent plastic
  - Masking tape
- c. *Abrasion Supplies to Create Medium Grade Sandpaper Finish*
  - #80 grit sandpaper, power sander, sanding blocks, wire brush
  - Mohair or lambskin roller used for solvent based paints (no thicker than 10mm nap)  
NOTE: DO NOT USE A ROLLER WITH CARDBOARD CORE
  - Paint brush for detailing
  - 15 litre bucket for boxing (intermixing) paint
  - Mechanical mixer; a paddle attachment for a power drill
  - Carboline Thinner #10 for thinning paint if airless spraying and/or cleaning-up tools and spills
- d. *Joint or Crack Filler:*
  - Hydraulic cement or Dymonic 100 polyurethane sealant. Do not use silicone-based products as paint adhesion will be adversely affected. Dymonic 100 must be top coated before being submerged in chemically treated water. Live cracks need to be assessed for movement prior to coating.

### **3. General Surface Preparation**

Plaster or concrete surfaces should be tested for integrity and soundness. Ramuc coatings are not a repair for weak surfaces. Any minor repairs, such as patching with hydraulic cement or filling of cracks, should be done and allowed to cure prior to surface prep. Follow the manufacturer's recommendations.

Previously painted epoxy or bare fiberglass surfaces need to be abraded with a 60-80 grit sandpaper to create surface profile; especially if 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 Ramuc Clean and Prep Solution following the directions carefully.

CONDENSATION TEST – After all cleaning is completed, allow the pool surface to dry. Average drying times vary regionally and are dependent upon the porosity of the surface. It is recommended to wait 5 dry sunny days before performing a condensation test.

- Tape 600mm x 600mm pieces of transparent plastic to areas in the deep end wall, floor and several other areas of the pool.
- Wait about 4 hours to determine if condensation is 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. Repeat as needed until no condensation forms. This will ensure 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 20°C and above. Allow to stand 45 minutes at temperature below 20°C 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 10 litre kit is used at a time box several kits together.

### **5. Application**

Using no thicker than a 3/8' nap mohair or lambskin roller, apply the recommended coverage rate. Ideal air and surface temperatures for application are between 10°C to 32°C. Overnight curing temperatures must be at least 10°C or the paint will not cure correctly, causing an "oily" feel to the top of the paint. Do NOT paint if rain is imminent. New concrete or plaster surfaces must be cured a minimum of 28 days prior to painting.

## 6. Cure Rates

Outdoor pool: 5-7 dry days with temperatures above 10°C

Indoor pool: 10-14 days with adequate ventilation and temperatures above 10°C

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

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. No primer required.

## 7. Coverage

6.2m<sup>2</sup>/L. Note: This is a theoretical coverage rate & coverage in practice as well as on different surfaces will differ. Please consult with a Ramuc expert on coverages to be expected in practice.

- Minimum dry film per coat: 125 microns dry (160 microns wet)
- Maximum dry film per coat: 200 microns dry (256 microns wet)
- Pot life – use life: 3 hours (@ 20°C and 50% relative humidity)
- Clean-up: Carboline Thinner #10
- Finish: Satin

## 8. Technical Data

Weight/Litre: 1.5L mixed

Solids by weight: 87% ± 2% mixed

Solids by volume: 78% ± 2% mixed

V.O.C.: Does not exceed 340 g/l

## 9. Spray Information

Airless: 2000 - 2300 p.s.i Tip

Size: .015 - .019

## 10. 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 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%) solutions of muriatic acid. Acid will remove iron stains without damaging the paint film.
- Wipe affected areas with Carboline Thinner #10.
- 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 5-7 dry, sunny days and/or 10-14 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 (before filling pool):

- Scrub off blisters; wipe lightly with Carboline Thinner #10. Apply a coat of Hi Build Epoxy to blend in for uniformity if needed.
- All surfaces to be painted must be dry prior to painting with Hi Build Epoxy.
- Paint must cure for 5-7 dry days on an outdoor pool and 10-14 days on an indoor pool.