

LUXAPOOL EPOXY POOL COATING APPLICATION GUIDE

MARBLESHEEN POOLS

1. Marblesheen surfaces are prone to extreme variations in surface quality due to raw material variations, application techniques, marblesheen additives and surface deterioration. Inspect the surface carefully for soundness. If the surface is crumbly, soft, or drummy in any area it is suspect and must not be painted over before repairing. Soft, crumbly or drummy areas of marblesheen must be removed and repaired using a standard sand/cement render mixture [generally a sand :cement ratio of between 2:1 > 3:1 is sufficient]. Alternatively use an Epoxy Mortar available at most building supply/hardware stores.

Caution: Painting over unsound marblesheen will result in a coating failure. This is commonly seen as paint flakes dislodging from the surface with marblesheen attached to the underside.

2. Empty the pool and, using a stiff brush or broom, scrub the entire surface with diluted Luxapool Concentrated Wash [mixed at a ratio of 500ml Concentrated Wash to 20 litres of warm water]. This removes contaminants such as sun creams, oils, body fats, greases, etc. Pay particular attention to step areas and corners where oil accumulation may occur. Upon completion, thoroughly rinse the pool with clean water to remove all traces of Luxapool Concentrated Wash. Allow to dry thoroughly. This is critical to the preparation process and must be done thoroughly.

3. Acid etch the entire pool according to directions. Refer Page #2, ACID ETCHING OF MARBLESHEEN AND CEMENT RENDER.

ACID ETCHING OF MARBLESHEEN AND CEMENT RENDER

1. All personnel participating in acid etching must wear protective clothing, rubber gloves, boots and goggles. The etching solution should ALWAYS be mixed in a plastic bucket. Use commercial Hydrochloric or Muriatic Acid. Always add acid to water, NEVER ADD WATER TO ACID. Refer to the table below to identify the acid concentration required for the surface of your pool.

2. Using a plastic watering can, apply the etching solution to the surface, a small area at a time. Immediately scrub the entire surface with a NYLON broom. As soon as the bubbling reaction stops (approximately 5-15 minutes), flush the entire area with fresh water. NEVER ALLOW THE ACID RESIDUE TO DRY ON THE SURFACE. Acid residue can cause paint failure. Proceed to the next section to be treated with the acid-etching solution. The surface, when etched correctly, should have a rough, sandpapery feel to the touch. It is important to concentrate on a small, workable, section at a time. This will ensure that no acid residue is deposited onto the surface.

3. After the entire pool has been etched thoroughly, the surface must be neutralised with a solution of Bicarbonate of Soda and Water (1 kg of Bicarbonate of Soda mixed with 10 litres of warm water). Thoroughly flush the surface with the neutralising solution and then flush liberally with fresh water. It is important to concentrate on a small, workable, section at a time. This will ensure that no bicarbonate of soda is deposited onto the surface.

4. Allow the pool surface to dry prior to any further surface preparation. Sweep or vacuum, any loose residue.

5. Now you are ready to paint your pool.

ACID ETCHING SOLUTION CONCENTRATIONS

<u>SURFACE TYPE</u>	<u>ACID (by Part)</u>	<u>WATER (by Part)</u>
NEW CEMENT RENDER	ONE PART	TWO PARTS
OLD CEMENT RENDER	ONE PART	THREE PARTS
MARBLESHEEN (Sound & Hard)*	CONCENTRATED ACID	NIL
MARBLESHEEN (Sound & Soft)*	ONE PART	ONE PART

PAINTING THE POOL

1. Prior to painting, check the weather forecast. Three consecutive rain free days are ideal for the painting process. Defer painting if rain is expected. The presence of rain during the painting process may discolour the coating or cause paint failure.

2. It is best to apply the paint between 8 am and 11 am. Do not apply later than this time as evening dew can cause water spotting or blooming, which will affect the adhesion of the paint causing failure. Apply only between the temperatures of 10°C and 30°C, but do not paint in direct, mid summer sun. In mid summer paint as early as possible in the day, and then ideally protect the coating from direct sunlight by shading. This is particularly important in the first 3 > 6 hours of cure. Painting outside of this temperature range and shade control can damage the coating.

3. Unless the marblesheen surface is 'tight and well bound' and apply Luxapool Epoxy Primer Sealer as the first coat of the system. Keep the product cool before, and during use as excess heat diminishes working life. Coverage is approximately 25-30m² per 4 ltr kit. Add Part B to a solvent resistant plastic, or metal container of at least 5 litres capacity then add all of Part A. NEVER ALTER THE MIX QUANTITY OR USE PART CANS. Mix thoroughly with a clean, flat stirring stick or the stirrer provided. Allow 5-10 minutes reaction time, remix and then start to apply immediately. Apply by roller as per the instructions for the finishing coats shown below. Refer the technical data sheet for additional details. Allow to cure for 12-24 hrs to reach 'trafficable stage'. Proceed to application of the initial finish coat within 24 hours otherwise sanding of the surface must be undertaken with removal of dust etc before proceeding.

4. Prepare for the finish coat application. Check that batch numbers on all Part A are identical. Make sure that all Part B cans are either all summer or all winter cure activity.. This is to ensure a uniformity of colour on your pool. Record the batch number, found on the lid, side or bottom of every Part A can.

5. Add Part B to Part A base and mix thoroughly with a clean, flat stirring stick or the stirrer provided. Failure to mix the two parts thoroughly will result in the paint not curing properly. Paint that is still wet and tacky after 4-6 hours has not been mixed correctly and it will not cure. Consult Colormaker Industries. Mix only one pack at a time and apply within one hour. Coverage of Luxapool Epoxy Pool Coating is approximately 20-25 m² per 3.5 L pack for a two-coat system. Keep paint cool before and during use as excess heat diminishes workable pot-life. Ensure that Part A and Part B cans are kept cool prior to mixing. Do not adjust mixing ratios of Part A to Part B components. ALWAYS MIX AND USE WHOLE PACKS. NEVER USE PART PACKS.

WARNING: do not add any substances to Luxapool Epoxy Pool Coating as any addition will result in loss of optimum performance. USE ONLY AS INSTRUCTED.

6. Apply by roller. Cut in at the tile line with a brush. Do not apply thin coats of Luxapool Swimming Pool Epoxy Coating as it will wear faster resulting in a patchy coating. When applying allow the painted area to "stand" for approximately 10-15 minutes after application. If small bubbles appear during this "standing" phase they can be eliminated by lightly draping a wet roller (not loaded) over the surface.

It is important to only lightly touch the paint surface. This bursts the bubbles allowing the resulting crater to flow and re-form into a uniform film. Only practice this technique if there are many bubbles on the surface and only within the first 10-15 minutes of painting. The existence of these bubbles is due to entrapment of air within the surface (once painted). The bubbles rise due to expansion from heat. This can be minimised greatly by utilising a protective shade-cloth. The occurrence of these bubbles is also affected by surface type and texture. Avoiding all bubbles is impossible, however minimising their numbers is achievable.⁶ The pool requires a minimum of two coats of Luxapool, and sometimes three, in order to achieve a minimum dry film thickness of 400 microns. Achieving the correct total dry film thickness is critical to long-term durability of the finished coating. An average size pool (10m x 5m) requires approximately 5-6 packs of Luxapool Epoxy Coating for a two-coat finish.

7. After application of the first coat, allow 24 hours curing time prior to applying the second coat. Any milky discolouration (bloom) caused by unpredicted rain, evening dew, or high humidity, should be thoroughly removed by abrading with a medium-grade sanding paper (40-60 grit) prior to application of the second coat. ALWAYS paint within 24 hours of the previous coat. If more than 24 hours has elapsed between coats it is necessary to thoroughly abrade the entire pool surface to a dull finish prior to recoating. Remove all sanding dust prior to application of the epoxy.

8. The longer a pool is allowed to dry prior to filling the better the ultimate coating quality and longevity. ALWAYS allow the coating to dry at least 7 DAYS IN SUMMER, and 14 DAYS IN WINTER, prior to filling the pool. If a coating has not had adequate drying time and is filled prematurely its colour will be damaged. This is seen as cloudy, uneven colour distribution on the last coat. DO NOT add chemicals for at least 3-5 days.

9. Stable pool chemistry determines the longevity of the epoxy coating. Fluctuating pool chemistry will damage your epoxy coating. For best results maintain pH between 7.4 & 7.8 and maintain Total Alkalinity at a minimum of 140-160 ppm. Calcium hardness should ideally be 280 ppm – 320 ppm, and maybe higher for darker colours. Minimise use of acid where possible. Keep chlorine levels at a minimum. Excessively high chlorine levels will degrade your coating. Poor pool chemistry maintenance will accelerate chalking and degradation of the epoxy coating.

10. Once the pool has been filled it is important to maintain the surface. Brushing down your pool every 4-6 weeks will maintain a coating of good integrity and improve longevity.

11. Application at very low temperatures can result in accelerated chalking of the coating. It is best to apply the coating during spring, summer and autumn. Application during winter months can result in a prematurely chalky surface.

VER 1006

The ultimate performance of our products will vary according to surfaces, to surface preparation, and to the correct or incorrect application procedure.

Colormaker Industries, as manufacturer of the products cannot supervise application by the purchaser or applicator. Therefore no warranty can be given as to the suitability of the product for a particular purpose. Provided nothing herein shall be deemed to exclude, restrict or modify any conditions of warranty expressed or implied by any State or Federal statute.

LUXAPOOL FACTS SHEET

Luxapool Swimming Pool Epoxy Coating is a high performance product, however there are certain characteristics associated with all epoxy coatings. Your awareness of these will assist you in understanding your epoxy pool coating. These are;

1. CHALKING

Chalking is a natural weathering process of an epoxy coating. Chalking is apparent as a fine powdery deposit on the paint surface. Intensity of chalking is dependent upon pool chemistry stability, water type, light intensity and overall stability of the water conditions to which the epoxy coating is subjected. Chalking is accelerated by a deposition of soluble salts from the water onto the coating surface and by unstable pool chemistry. We recommend a pH of 7.4-7.8 and a Total Alkalinity (minimum) of 140-160 ppm for minimising chalking. High chlorine levels also affect chalking. Keep chlorine levels to a minimum. Regular brushing, followed by at least 8 hours of filtration, will minimise chalking levels and maintain your pools coating in good condition.

Chalking is also accelerated by application at low temperatures. It is recommended that care be taken when applying during winter months. All epoxy colours chalk however darker colours appear more noticeable as the colour in the paint stains hands and feet.

2. BLOOMING

Bloom occurs when water, or free moisture, is present on the epoxy surface during its initial curing phase. It results in a fine, often white, powdery deposit that appears on the epoxy surface within the first few days of curing. The moisture can be present in the form of rain, dew or even high humidity. All the bloom must be thoroughly removed by abrasion with medium grade sandpaper prior to recoating. Any bloom present between coats will result in delamination of one coat from the other.

3. BLISTERING

Blistering is the result of poor application techniques. Blistering is caused by painting over a moist surface, painting under high temperature conditions (over 30 C), painting over a surface that has been curing for longer than 24 hours or painting over a surface that has been improperly prepared. Blistering will ultimately result in cracking and peeling of the epoxy coating.

4. STAINING

Stains occasionally appear within the pool coating, commonly yellow in colour, as a result of excess amine (hardener) leaching to the surface of the coating. This staining can occur about one month after the painting is completed. The stain will gradually disappear as the pool chalks. This will take approximately 2-3 months during summer and 3-4 months during winter.