



APPLICATION INSTRUCTIONS

**STEP BY STEP APPLICATION PROCEDURES FOR
POXYCOTE 4CS EPOXY POOL COATING**

Abstract

PoxyCote's mission is to eliminate installation risk by providing comprehensive technical installation support to pool owners irrespective of whether they install the pool coating themselves or use a PoxyCote approved installation contractor.



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1 IMPORTANT INTRODUCTORY COMMENTS

We kindly refer our Customers to the Applications Instructions in this document and request that you read it very carefully and with a specific emphasis on the process of preparing and applying the PoxyCote product.

PoxyCote compiled the installation instructions in a practical, "easy to understand" format to assist and guide our Customers in attaining an extremely satisfying result in respect of durability and finish.

The application of the PoxyCote 4CS Epoxy Pool Coating System product entails specific procedures and it is most important that these procedures be understood and meticulously applied to achieve the best results.

Please follow the instruction to the letter and do not hesitate to contact the PoxyCote office to clarify any uncertainties pertaining to your installation.

2 UNDERSTANDING YOUR RE-COATING REQUIREMENTS

As a first step, verify the pool's construction material (concrete, marbelite, or fiberglass) and carefully assess the condition of the substrate for cracks and stability. Determine the reasons for any deformation or cracks and consider the required level of repair within your ability. If in doubt, contact experts who specialize in pool construction.

It is most important to also determine and conclusively identify any previously applied surface cover or lining that might have been used on your pool. This is critical as it will inform your surface preparation for the application of PoxyCote.

Finally confirm the state of the current lining of your pool and of the mosaic material and apply your mind regarding the possible options for minor shell restoration as might be required.

Telephonic advice is available from PoxyCote. (Mobile nos. 0645250918 and 0615826573)

Determine the size of your pool using the calculator (www.poxycote.co.za).

Poxycote offers free assessments per appointment in Gauteng only.

3 TOOLS and P.P.E. REQUIREMENTS

- 1 x Water pump with adequate length (50mm) hoses for pool drainage.
- 1 x Electrical extension cord connected via Supply board earth leakage system with adequate reach.
- 1 x Mosaic Tile Cleaner
- 8 x 50 mm "Blondie" paint brushes
- 6 x 225 mm Mock Mohair paint rollers with paint pans
- 1 x 20L empty water bucket and dustpan for scooping out remaining water
- 1 x 230 mm Angle Grinder if required
- 1 x 115 mm Angle Grinder if required
- 1 x per 10m² area - P36, 230 mm Grinder sanding disks for preparing an unpainted marbelite surface.
(In cases where old paint must be removed P16, 230mm rigid disks will be required)
- 1 x per 10m² area - P36, 115 mm Grinder sanding disks for preparing an unpainted marbelite surface.
(In cases where old paint must be removed P16, 115mm rigid disks will be required)

- 1 x 230 mm Grinder flexi backing pad
 - 1 x 115 mm Grinder flexi backing pad
 - 2 x Rolls 100 Grit sandpaper
 - 2 x Pair building/welding gloves for grinder use and safety
 - 2 x Pair Safety glasses for grinding and chemical work
 - 2 x Pair Dust face masks with dust filter pods for grinding work. 1 x Soft Broom
 - 1 x Paint mixer fitting for a drilling machine
 - 1 x Roll of mutton cloth or lint free cloths - NB! Do not use the bulk packed rags available from general hardware outlets. These rags are often contaminated with incompatible solvents and synthetic fibers and are not suitable for the task.
 - 1 x Box of latex, powder free surgical gloves
 - 1 x 5L Lacquer Thinners (Grade A) for cleaning and spills.
 - 1 x Paint drop sheet for covering paving bricks at exit point.
 - 1 x Garden Hose pipe with all fittings and connectors
 - 1 x Roll Refuse Bags
 - 2 X 25L or larger PVC drums or buckets or suitable washing bowls (for hot water for heating epoxy topcoat components)
 - Access to hot water (geyser or urn or kettle)
 - Non-slip boots or shoes
 - Thick woolen socks – for walking
- Note: Additional tools and materials may be required for possible repairs to the existing surface prior to coating*

4 WEATHER AWARENESS

The weather is always a factor when applying PoxyCote Epoxy Coating System.

Warmer weather will drastically speed up the PoxyCote curing process while cooler temperatures will slow it down.

It is strongly advised to consider weather forecasts as rain and wind conditions can seriously compromise the application process.

Should unexpected rain occur during the application process the following approach might be followed: -

4.1 PRIMER COATS

(In case of rain)

Primer Coats require 5 to 8 hours curing time to be touch dry and to be “rain safe” (depending on ambient temperature)

Please refrain from entering the pool until the full allotted 24hrs curing time is reached. If really required to enter the pool, please use woolen socks to do so.

In the event of rain either during application or during the “rain safe” curing period, allow a 24-hour curing period to pass for the pool to fully cure before entering, remove all rainwater and allow the pool to dry completely. Thereafter inspect for damage and if required, reapply the specific coat. It is not necessary to remove the damaged layer.

4.2 PRE- TOPCOAT

(In case of rain)

The Pre-Topcoat requires 5 to 8 hours curing time (depending on ambient temperature) to be “rain safe” and avoid water damage.

However, should unexpected rain occur prior to the cured coating being touch dry, allow 24hrs before entering the pool, remove all rainwater and then allow pool to dry thoroughly. Lightly sand down the pool and clean to dust free condition. Re-apply the pre-topcoat if required. Please use woolen socks to enter the pool.

4.3 FINAL COAT

(In case of rain)

You will need 8 to 12 hours curing time (depending on ambient temperature) for the Final Topcoat to be “rain safe” and not be damaged by rain.

In the event of rain damage, wait at least 24 hours before entering the pool, drain all the rainwater, allow pool to dry completely, determine whether the curing is adequately hard for sanding; lightly sand the entire coating and redo this layer. There is no need to remove the damaged layer. Please use woolen socks to enter the pool.

IMPORTANT NOTE!

DO NOT ENTER POOL PREMATURELY EVEN IN WET CONDITIONS. ALLOW AT LEAST THE ALLOTTED 24 HOURS AFTER APPLICATION BEFORE ENTERING TO DRAIN AND TO ASSESS DAMAGE.

5 EMPTYING YOUR POOL AND CLEANING THE TILES/MOSAICS

In the interest of water conservation, the use of bladder storage might be considered for the duration of the application process. Please ensure compliance with local regulations regarding the disposal of pool water. To drain your pool, a submersible pump in the deep end will avoid air suction and bleeding issues. Alternatively, an external water pump (electrical/petrol) will suffice. These are both rentable from any reputable machinery rental company. A note of warning is to keep silt and debris filtered from the pump to avoid clogging especially towards the end. The last few liters of water will require manual removal by scoop or bucket.

Ensure that the weir and inlet pipes have been emptied of all water. Remove the light fitting(s) from its housing where applicable and drain any trapped water. It is a good idea to open/remove the pool pump’s lid and switch the multiport valve to the “Rinse” position for the duration of the complete process and to avoid any plumbing vacuum and help drain excess water from supply and return piping. Doing so will prevent water dripping into the pool.

Extreme caution is required while using any electrical equipment close to a pool. Ensure that the equipment is suitably IP rated (weatherproof) for the task and install connections and fitting as far away from the water edge as possible. Also be aware of possible splashing and cover the extension connections etc. with weather shields. Always use a supply circuit with earth leakage and never handle electrical devices without rubber shoes or with wet hands.

NB. It is advised, as a first step, to start cleaning the mosaics while kneeling on the edge of the pool as soon as the water levels drop to just below the mosaic line and while the draining water is still within easy reach for rinsing the mosaics.

Marbelite Pools are normally edged with one of two mosaic types:

- **Glass tiles** can be cleaned with **Mosaic Wonder**, however as effective as it is, it is highly toxic and acidic and must be handled with PPE such as gloves, mask, and a full-face visor.
- **Ceramic tiles**, identified by its smooth and clear glazing, and not unlike bathroom/kitchen tiles should only be cleaned with a **ceramic tile cleaner** for removal of scale build up and chemical deposits.

Fiberglass Pools are likely to be fitted with standard fiberglass mosaics covered with a clear resin and is easily cleaned with **pool acid**.

Once all water and debris are completely removed and the surface has air dried, surface preparation can commence.

Speak to your local pool shop to confirm the best available chemical and method that could be used to clean your mosaic tiles.

6 SURFACE PREPARATION

6.1 MARBELITE SHELLS

NB! Never use any form of acid for washing marbelite. Where acid embeds into the slightly porous marbelite, it is not possible to completely remove acid residue and such deposits, however minute, will cause adhesion problems for epoxy coating layers. If your pool surface is in good condition without bad staining or algae infestation a high-pressure washer (180 bar-200 bar) may be used to wash it down. Badly stained/pitted marbelite surfaces will require grinding down using a 230 mm (large) and a 115 mm (medium) grinder with a backing pad and a P36 grinding disc. Please be advised that this process is very dusty and noisy and be sure to wear appropriate Personal Protection Equipment (Hands, face, eyes, breathing and bodyware). Working with grinders is dangerous, do not attempt this yourself if you are not comfortable using this equipment. Old paint removal is done in the same manner using a P16 or C16 ridged disc. This should be done thoroughly with small, controlled movements always holding the disc as flat as possible with the marbelite surface to avoid gouging and damaging your lining. After sanding, use a broom and dustpan to remove as much dust as possible before rinsing the entire pool and surrounding areas thoroughly with water.

6.2 FIBERGLASS SHELLS

Fiberglass pools are easy to clean and do not require heavy sanding. Simply lightly sand the complete pool by hand with 60-80 grit sandpaper in small circular motions marking any problem spots with a permanent marker. Water diluted 1:1 ratio of hydrochloric pool acid can be used to rinse the fiberglass shell after sanding (**never on marbelite**). A stronger solution may be used if required.

NB! Ensure to thoroughly dilute/rinse away all remaining acid residues from the pool and repeat at least three times with short intervals when done. Acid residue will cause bonding problems so it must be completely removed. Be sure to wear the appropriate safety equipment when working with acids and always have clean running water nearby to rinse away any spills or acid contact with body or eyes.

7 ADDITIONAL REPAIR WORK

7.1 MARBELITE

After the sanding process, any spots requiring further repair should be marked.

Be meticulous when inspecting your lining, as the quality and durability of your epoxy coating will directly depend on the stability of your marbelite or concrete shell.

Hairline cracks are quite common in marbelite pools and are covered effectively by the PoxyCote epoxy system. However, cracks which are possible to be pried open with a fingernails/small screwdriver or with any lodged debris in it will require repair. Using a small flat chisel and hammer, widen the crack along its length. Hollow cavities need to be opened completely. To repair minor cracks, UNDERWATER POOL PATCH can be used. For larger, deeper cracks and cavities, we recommend a mixture of marbelite and FLEXBOND, a latex based bonding liquid to ensure strength and durability. Allow to set overnight. Lightly sand over repaired spots until flush with surrounding area with no indentations/ridges. Your finger is your best sensory gauge for surface irregularities. Use only a broom and/or vacuum cleaner to clear out any dust and a lightly damp cloth to remove dust residue.

Water seepage or water forcing back into the pool through and from the outside of the marbelite or concrete substrate (seen as wet, “tear” spots) is not uncommon and is caused by either a high-water table or where the pool is surrounded by a clay type soil that retains moisture.

It is extremely important to drain these specific areas and to completely stop any flow or osmoses of water thru the shell back into the pool.

This can easily be done by using a 10mm x 150mm concrete drill bit and a drilling machine to drill a few holes at the center of these wet spots and straight through the shell into the surrounding soil. This may release the pressure, and, in some cases, you may see a stream of water rushing into the pool. It is advisable to repeat this process on all spots as well as at the deepest point of the pool. The water must be allowed to completely drain to a point where the seepage stops and only after that the holes must be closed, sealed with a marbelite and FLEXBOND mixture and sanded level.

NB!! The pool surface must be completely dry and void of any moisture before the initial primer coat is applied.

7.2 FIBERGLASS

Be meticulous in locating and marking problem areas and especially hollow spots/cavities as these can easily tear or rip causing water seepage and shell disintegration.

Using a small grinder with a diamond cutting disc, neatly cut out and remove fiberglass squares around problem areas being careful not to pull or tear excessively at the remaining fiberglass. Using a fiberglass repair kit obtainable from any professional pool shop follow the instructions correctly to repair the area. Allow to cure overnight. Using a fine sanding disc with backing plate on the grinder, sand down the hardened repair work until flush with surrounding surface.

Clean the pool of all remaining dust using a broom, dustpan, and vacuum cleaner.

8 MIXING THE RESPECTIVE PoxyCote 4CS COATS

The instructions in this section (8) are critically important!

General

Ensure that all surface repair and preparation has been done correctly and that the pool is dust and debris free by using a water dampened lint free cloth to wipe the entire pool down. Prior to mixing, ensure that all tools required are placed and ready for use.

All TOPCOAT mixtures have a typical usable (recommended) pot life of at least 60 minutes in which it must be applied before the mix starts curing. This pot life period starts after the initial chemical stabilization procedures (heating process) and the thorough mixing of TOPCOATS as described in section 8.2 below. Do not exceed the period in which the paint has to be applied as it could start thickening (The application period is mainly influenced by temperature - but several other environmental factors will also influence the amount of time available for application). Lower ambient temperatures will increase the pot life period.

NB! Primer coats do not require chemical stabilization. (heating)

Applying the respective coats is a 2-man job (at least). One person to cut/point the outline on all tile and fixtures edges with a 50 mm paint brush and one person to roll apply with the paint roller. Do not attempt to do this with one person only as you will be at risk of exceeding the mixed epoxy's pot life and the onset of curing before it can be completely applied.

The PoxyCote 4CS Epoxy Pool Coating System comprises 4 separate coats for marbelite/concrete linings and 2 coats for fiberglass surfaces.

Each coat mixture or batch consists of 2 components – Component “A” (3L in the 5 L container) & Component “B”. (1L in the 1L container)

Your pool size will determine the number of mixing sets (batches) required.

The topcoats will yield approximately 7,5 square meters of coverage per 1 liter which translates to a coat thickness of 133 microns per coat. Therefore applying 2 layers of topcoats will typically yield 266 microns total topcoat thickness.

Please see the Important Notes on the following page:

IMPORTANT NOTES:

- **THE MIXING INSTRUCTIONS PER LAYER ARE DISTINCTIVELY DIFFERENT. PLEASE READ THE INSTRUCTIONS VERY CAREFULLY!**
- **FIBERGLASS POOLS DO NOT REQUIRE PRIMER COATS, ONLY PRE- AND FINAL TOPCOATS.**
- **COMPONENT 'A' CONTAINERS (5L) ARE NOT FILLED TO CAPACITY AND CONTAIN 3L OF COMPONENT 'A' TO ALLOW FOR COMPONENT 'B' (1L) TO BE ADDED AND MIXED IN THE SAME CONTAINER.**
- **IN OUR EXPERIENCE THE MOST EFFECTIVE WAY OF EMPTYING THE CANS (DECANTING COMPONENTS 'A' AND 'B') IS TO WEAR DISPOSABLE LATEX GLOVES (SURGICAL GLOVES) AND USING YOUR FINGERS TO SCRAPE OUT THE CANS AS EFFECTIVELY AS POSSIBLE. ALSO, BY FOLLOWING THE STABILIZATION HEATING PROCEDURES DESCRIBED IN SECTION 8.2 BELOW THE TOPCOAT COMPONENTS BECOME VERY FLUID AND EASILY POURABLE.**
- **PLEASE ENSURE THAT FOR EVERY LARGER CONTAINER (5L) FILLED WITH 3L OF COMPONENT 'A', A CORRESPONDING 1L CONTAINER OF COMPONENT 'B' IS AVAILABLE AND READY FOR MIXING. THE CONTAINER CONTENT IS CLEARLY MARKED ON THE LABEL.**
- **NB! PRIMER COMPONENTS 'A' AND 'B' ARE COMPLETELY DIFFERENT IN COMPOSITION THAN THE TOPCOAT COMPONENTS 'A' AND 'B' AND THESE CANNOT BE INTERCHANGED.**
- **1ST AND 2ND PRIMER COMPONENTS 'A' ARE ALSO DIFFERENT AND CANNOT BE INTERCHANGED.**
- **PLEASE PLAN AND MANAGE YOUR BATCH MIXING TIMES FOR EACH 3L 'A' (IN 5L CAPACITY CAN) AND 1L 'B' SETS OF POXYCOTE COMPONENTS.**
- **COMPONENT 'A' IS ALWAYS SUPPLIED IN 5L METAL CONTAINERS WHERE COMPONENT 'B' IS NORMALLY SUPPLIED IN 1L PLASTIC CONTAINERS.**

SUMMARIZED INFORMATION FOR THE RESPECTIVE LAYERS

LAYER NO.	CONTAINER 5L (3L CONTENT) OR 2L (1.5L CONTENT) as LABELLED	CONTAINER 1L OR 0.5L as LABELLED:	COMMENT
Layer 1	1 st Primer Component A	1 st Primer Component B	<p>NB! <i>Not to come into contact with water or moisture nor be diluted!</i></p> <p>See mixing and application instructions below for details. (Clauses 8.1 and 9.1 respectively)</p> <p>Composition of 1st and 2nd Primers Components 'A' are different!</p> <p>Component 'A's cannot be interchanged.</p> <p>1st and 2nd Primer Component 'B's are interchangeable</p>
Layer 2	2 nd Primer Component A	2 nd Primer Component B	<p>NB! <i>Not to come into contact with water or moisture nor be diluted!</i></p> <p>See mixing and application instructions below for details. (Clauses 8.1 and 9.1 respectively)</p> <p>Composition of 1st and 2nd primers Component 'A' s are different! Component 'A's cannot be interchanged.</p> <p>1st and 2nd Primer Component 'B's are interchangeable</p>
Layer 3	Pre-Topcoat Component A	Pre-Topcoat Component B	<p>NB! A Chemical stabilization Process (heating process) is required before application. See mixing and application instructions below for details. (Clauses 8.2 and 9.2 respectively)</p> <p>While the composition of pre-topcoat and topcoat is identical the final coat colour is specifically matched and batched Please apply as indicated on the label. (Pre-final -or final topcoat)</p> <p>If not specifically indicated, it implies that both pre- and final topcoat are batch colour matched</p>
Layer 4	Topcoat Component A	Topcoat Component B	<p>NB! A Chemical stabilization Process (heating process) is required before application. See mixing and application instructions below for details. (Clauses 8.2 and 9.2 respectively)</p> <p>While the composition of pre-topcoat and topcoat is identical, the final coat colour is specifically matched and batched Please apply as indicated on the label. (Pre-final -or final topcoat)</p> <p>If not specifically indicated, it implies that both pre- and final topcoats are batch colour matched</p>

8.1 PRIMERS: (For Marbelite and Cement Surfaces Only)

8.1.1 MIXING 1ST PRIMER – LAYER 1

Ratio: Three (3) volume Parts Component A (3L as per large container): One (1) volume Part Component B (1L in smaller container):

NB! NO WATER AND (OR) MOISTURE TO BE PRESENT OR ADDED. DO NOT DILUTE.

Instruction: Ensure the mixing tool is fitted to a variable speed electric hand drill ready for use and your painting equipment is ready for application.

Pour 1st Primer Component B (1L) into the 1st Primer Component A (3L).

Using the drill with mixing tool, mix thoroughly. This clear mix is at ideal viscosity for the application of 1st Primer to ensure maximum penetration, waterproofing and bonding with marbelite surfaces.

After the 1st Primer Coat is completely applied, clean the mixing tool thoroughly with **Lacquer Thinners (Grade A)** while primer is still uncured--This primer is not water based and no water or moisture must come into contact with this primer.

Apply as per Application Instruction in next section. (Section 9.1)

8.1.2 MIXING 2nd PRIMER – LAYER 2

Ratio: Three (3) volume Parts Component A (3L as per large container): One (1) volume Part Component B (1L as per smaller container)

Instruction: After the 1st Primer is applied and has been allowed 24hrs to cure, proceed to mix 2nd Primer.

Again, ensure the clean mixing tool is fitted to the drill ready for use and your painting equipment is clean and ready for application.

Mix 2nd Primer Component B (1L) into the 2nd Primer Component A (3L) tin.

NB! NO WATER AND (OR) MOISTURE TO BE PRESENT OR ADDED. DO NOT DILUTE.

Using the drill with mixing tool, mix thoroughly. This whitish mix must then be applied as per instructions in section 9.1.

Clean the mixing tool thoroughly with Lacquer Thinners (Grade A) while primer is still uncured as the primer is not water based.

NB! the primers must be applied thinly. Do not over-apply the primer coats. use only one pass with the roller per area per coat. Do not try to use up any remaining primer coats on your pool surface. Discard leftovers. This is important to avoid undue stickiness after 24 hours or when the topcoats are applied.

8.2 MIXING PRE- AND FINAL TOPCOATS (For all Pool Surfaces):-

Ratio: Three (3) Parts Component A (3L per large container): One (1) Part Component B (1L per smaller container)

Instructions: **PLEASE NOTE!** The procedure described below is **extremely important** to ensure a shiny smooth finishing surface and to minimize the characteristic Epoxy Blushing Effect (explanation far below).

POXYCOTE STRONGLY ADVISES THAT THE FOLLOWING PROCEDURE BE FOLLOWED TO THE LETTER!

- **Before opening any of the topcoat components:** Prepare a large container in which one sealed (Topcoat) PoxyCote 5L component 'A' container and one sealed PoxyCote 1L component 'B' container will comfortably fit (**NB! A plastic cooler box with a lid works well for this** - alternatively plastic buckets may be used indoors to avoid rapid cooling). Have one or more kettles or a boiler available to boil the water before decanting into the heating container.
- Boil enough water to completely cover the PoxyCote 1L component 'B' and cover at least two - thirds of the PoxyCote 5L component 'A' container.
- Add the boiling water to the container (preferably a plastic cooler box) to the level described in the previous bullet.
- Allow **exactly 45 minutes** for the contents of the two sealed containers to be warmed by the water.
- Prepare the mixing tool fitted to a variable speed electric hand drill ready for use.
- Remove the PoxyCote topcoat 'A' (5L container) and 'B' (1L container) from the warm water.
- Carefully open the containers and pour the contents of the warmed 1L component 'B' topcoat into the warmed 5L component 'A' container. NB! DO NOT ADD WATER or anything else to the mix.
- Mechanically mix the PoxyCote topcoat components 'A' and 'B' thoroughly (now totaling 4 L contents in the 5 L container).
- The topcoat mix must thereafter be applied **immediately** as per instructions in section 9.2 below.

Where a single topcoat mixture is typically applied to the pool surface in 30 minutes, consider the heating time needed for the next batch of PoxyCote topcoat. The point is to plan and overlap heating and application periods without undue time wastage between applications.

Dependent on environmental conditions (temperature/ humidity) the pot-life of the topcoats is at least 60 minutes after mixing and in which time it should be applied.

After this period, curing is likely to start, causing thickening of the mix.

Should your mixture become less pliable and difficult to apply properly during the application process, a few drops of lacquer thinners may be added to just achieve a workable viscosity but please try to avoid this if possible.

(NB! ratio: 12,5ml thinners per 500ml Topcoat - do not exceed this ratio!)

The Topcoat is solvent based and can only be cleaned with high quality Lacquer Thinners. Once cured, the topcoat will be extremely difficult to remove (by mechanical means only).

NB! By following the above procedure inherent and typical epoxy blushing will be eliminated and a superb smooth and shiny finish will be achieved. Ignoring the process might yield a blotchy and duller finish and layer bonding could be compromised.

8.3 Epoxy blushing explained:

Blushing is a thin white waxy film that forms on top of epoxy and is a natural chemical byproduct of the resin/hardener reaction.

As epoxy typically cures in an environment where air moisture is present, a greasy or waxy film known as amine blush is produced. This blush forms as a film on the surface of the cured epoxy. Its occurrence varies depending on the amount of air moisture and it appears as white streaks. It is more apparent in cooler, moist situations.

Should blush occur it is easy to wash away using warm soapy water and a Scotch Brite pad or the like. Rinse and dry thoroughly. Amine blush is water-soluble.

While the blush itself is not the problem the blush could cause bonding problems where an additional coat is applied without proper removal and cleaning of the first epoxy coat blush. Where blush appears, it must be cleaned and washed away before the surface is sanded to avoid sandpaper clogging.

Avoiding undue amine blush by carefully following the chemical stabilization (heating) process described in Section 8.2 above yields a very pleasing result and dramatically reduces the occurrence of epoxy blush.

9 APPLICATION

9.1 APPLICATION: 1ST PRIMER AND 2ND PRIMER

Each layer will be applied in the same way.

Using the 50mm Blondie Paint Brush with extreme care and precision, cut/outline the edges of the shell along tiles, mosaics, weir, light, etc. being meticulous in avoiding coating smears on the fittings or tiles. Always have a lacquer thinners and lint free cloth on hand to instantly clean up any spills.

Using 225 mm mock mohair rollers, apply the coat starting on the walls and working right around the pool. Then go back and inspect the walls for any runs or missed spots and debris before finally applying to the floor, beginning at the furthest point working towards the exit. This eliminates walking and (or) damaging the applied and still wet coat.

NB! THE PRIMERS MUST BE APPLIED THINLY. DO NOT OVER-APPLY THE PRIMER COATS. USE ONLY ONE PASS WITH THE ROLLER PER AREA PER COAT. Do not try to use up any remaining primer coats on your pool surface. Discard leftovers. This is important to avoid undue stickiness after 24 hours or when the topcoats are applied.

Allow each coat 24 hours at ambient temperature to cure. This will vary according to outside temperature. Winter period could require 48 hours + to cure. The cured primer layers should not be sticky to the touch before the next coat is applied.

Inspect the lining and remove any dirt or grit using a vacuum cleaner and (or) broom and dustpan then wipe down with a damp lint free cloth ensuring all dust and debris is removed before applying the next coat.

The process is then repeated for each subsequent coating.

9.2 APPLICATION: PRE-TOPCOAT AND FINAL TOPCOAT

Application to commence after the PoxyCote Topcoat heating period has passed and final mixing was done (See clause 8.2)

For Pre-Topcoat, using a clean 50mm Blondie Paint Brush with extreme care and precision, cut/outline the edges of the shell along tiles, mosaics, weir, light, etc. being meticulous in avoiding coating smears on the tiles and fittings. Always have thinners and a lint free cloth in hand to instantly clean up any mess.

Using 225 mm mock mohair rollers, apply the coat starting on the walls and working right around the pool. Then go back and inspect the walls for any runs or missed spots and debris before finally applying to the floor, beginning at the furthest point working towards the exit. This eliminates walking and damaging the freshly applied coat.

Ensure the removal of all debris of fluff, dust, and dirt during application.

Allow the Pre-topcoat to cure for at least 24hrs in summer (above 25°C) before proceeding with the application of the FINAL Coat. This curing period will vary depending on temperature, direct sunlight, and humidity. In cooler conditions (say winter) this period might be extended up to 72 hours. If you can clearly indent the pre-topcoat layer with your fingernail more curing time should be allowed. (Hand sanding to be done only after curing period.)

Careful final inspection of the pre-topcoat is of extreme importance as this will ensure optimum appearance and texture of the final coat.

Meticulously remove all traces of fluff, dirt, and grit debris thru light but thorough hand sanding using 80 – 100 grit sandpaper. As PoxyCote cures to a rock-hard state, any trapped fluff or dirt debris will become sharp. It is of utmost importance to be careful as not to damage the coating.

Clean by using a vacuum cleaner and (or) broom and dustpan then wipe down the entire pre-final coating with enamel thinners and a lint free cloth ensuring all dust is removed in preparation of the FINAL coat application.

Before applying the final TOPCOAT, again wipe down the entire lining with lacquer thinners and a lint free cloth.

After the in-pot chemical stabilization period and re-mix (see clause 8.2), apply the final coat as per preceding layers by first applying to the edges, then walls and finally floor and steps. However, take extra care and attention as this will be the final coat and final finish.

Allow 72 to 120 hours (3 - 5 days) in summer months and 120 to 168 hours (5 -7 days) in winter months for complete curing and before filling the pool with water. Do the fingernail test in the coolest area of the pool.



Before filling the pool carefully inspect the painted surfaces for smoothness. We recommend running your bare feet and hands over the surface to ensure that there are no sharp edges, trapped leaves, or bugs; these can be removed by using 400 grit wet water sandpaper.

To fill the pool, it is recommended to begin early and place the end of the hose pipe in a bucket in the deep end and allow it to overflow. The pool must be filled with continuous flow and the water cannot be switched off before the pool is completely filled. Once the water levels are achieved please follow our START-UP procedure as defined in clause 9.

Important note:

All hardware (brushes, rollers, sanding discs/paper, mixing tools, etc.) required for your pool preparation and epoxy coating application is available from the PoxyCote online shop and can be delivered as part of the PoxyCote consignment. Contact our offices for more information.

“START-UP AND AFTERCARE” on the following page

10 START-UP AND AFTERCARE

Maintaining the correct balance in your swimming pool water holds the key not only in protecting your new epoxy coating but is also crucial for a healthy comfortable swimming environment.

Please follow the following steps to maintain a healthy happy pool:

TEST	RANGE
pH	7.2 - 7.6
Total Alkalinity	120-150ppm
Calcium Hardness	300-500ppm (epoxy lining)
Free Chlorine	1-3ppm

10.1 BALANCING pH

pH is the measure of acidity of the pool water. The pH of the pool should be tested and adjusted, if necessary, on a weekly basis.

If the pH of the pool water drifts to the acidic side of the scale, corrosion of pool surfaces and equipment can occur. If the pH of the pool water drifts to the alkaline side - scaling, deposits, and cloudy water can occur.

Use a pH increaser to increase the pH of the pool. At 8.5, chlorine is only about 10% active. At 7.0, chlorine is about 73% active. If you maintain pH around 7.5, the chlorine will be 50-60% active.

Keeping the pH in check will allow you to use the full potential of the chlorine that is already in the pool. To lower the pH of the pool, use a pH reducer. Follow the label directions for the proper amount of the products to add based on test results and pool size. If unsure, take a sample of water to your pool professional once a month for complete test and analysis.

NOTE: Always follow label directions when adding any pool maintenance products to the pool. Never mix products together. If unsure how products are to be used, contact your local pool professional.

10.2 CALCIUM HARDNESS

Calcium Hardness is the amount of dissolved calcium in the pool water.

Low calcium hardness levels can cause plaster finish etching and shorten the life of vinyl liners as well as cause your epoxy coating to chalk. High calcium levels can result in calcium deposits on the pool surfaces as well as equipment.

The proper range for calcium hardness in pool water for your epoxy coating is 300- 500 ppm (parts per million).

Your pool professional can advise you on the best method for treating your pool if you encounter high calcium hardness. If tests indicate that you have extremely high calcium levels in your pool, take a sample of your fill water (water in the pool and water source used to fill the pool) to your pool professional for analysis as well.

10.3 TOTAL ALKALINITY

To prevent extreme pH variations acid buffers, or total alkalinity, must be correctly maintained in the pool. The pool should be tested weekly to maintain a total alkalinity of 120-150 ppm (parts per million).

Low total alkalinity not only causes pH fluctuations but also corrosion and the possibility of staining increases.

Too high total alkalinity can also cause the pH to fluctuate as well as cloudiness and possible scaling.

To lower total alkalinity, follow the directions obtained from your pool professional. To raise total alkalinity, an alkalinity booster is recommended.

10.4 METALS

There should not be any metals present in your swimming pool water. Metals can cause staining in the pool and cause the pool discolouration. The most common types of metals that occur in pool water are copper, iron, and manganese. If metals are present in the pool, a stain and scale remover should be used on a regular basis to prevent staining. You should determine the source of the metals and remove it if possible.

10.5 SANITIZE WITH CHLORINE

Stabilized chlorine products sanitize your pool water and kill bacteria. Stabilized chlorine products are protected from sunlight degradation and are an ideal means to keep your pool clear and clean. Most stabilized chlorine products are available in a variety of forms:

- Chlorinated Tablets
- Monthly Floaters
- Multi-functional Chlorinating Granules

Your pool professional can determine the best form and type of sanitization program for your needs. A free chlorine level of 1-3 ppm should be always maintained in the pool.

You will get more out of chemicals if you add them at night.

Important note:

PoxyCote offers specially formulated 6-month water maintenance packs for epoxy lined or fiberglass pools. Please contact our offices for more information.

Please do not hesitate to contact PoxyCote for assistance during any stage of your installation.

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END