



# TECHNICAL PAINT SERVICES

## HOW TO PREPARE & PAINT A SWIMMING POOL, WITH GUIDANCE TO TROUBLESHOOTING.

### Introduction

This document is designed to provide guidance with the painting of your swimming pool, whether it is newly constructed or previously painted.

One of the most common swimming pool surfaces is paint. Pool paint comes in a variety of colours and is an inexpensive coating compared to other surfaces such as mosaic tiles for example.

We recommend you print this document and read very carefully before commencing any work on your pool. There is a section at the end for you to make notes before calling us; please have this to hand. This will help us provide the best possible advice and subsequent paint finish for you. You can of course email your questions and attach photos which are always helpful for our Technical Team and will give us a better insight into your pool paint requirements.

Technical Paint Services manufacture two types of pool coating; **Acrylic WB148** and **Chlorinated Rubber A148**, both of which are suitable for new construction as well as pools that have been painted previously. *Pools that have been previously painted with Epoxy paint should only be re-coated with Epoxy paint unless the surfaces are fully stripped, when our Acrylic or Chlorinated Rubber Paints may be used.*

WB148 Acrylic Paint is water based paint. This paint can be used on any type of surface (except GRP/Glass Fibre, Marbelite or Plastic Liners), is quick and easy to apply and cleans up with water. This type of pool paint is ideal for commercial applications that are repainted on a regular basis. It should last about 2-3 years in typical UK climate with controlled water quality, whether outdoor, indoor or covered.

A148 Chlorinated Rubber Pool Paint is a rubber based, high performing coating which, whilst not as durable as Epoxy Paint, is less expensive. It is however, dependable, easy to use and is an inexpensive pool paint. It is easy to apply, comes in many colours and will last about 3-5 years in typical UK climate with controlled water quality, whether outdoor, indoor or covered.

### **We now make and offer both our ranges in a formulation to suit warmer climates.**

Whatever paint you use, it is important to follow the instructions provided, follow recommended safety guidelines and make sure you prepare the pool and the surrounds properly. Preparation is the most important step in pool painting. Without the proper preparation, the paint will not bond with the wall or existing surface.

For all GRP/Glass Fibre, previously lined or Marbelite pools, whether coated or uncoated, please call our Technical Team on 01202 295 570. We will, as a rule, require photos of the surface before advising on, or recommending any type of paint coating system. GRP pools that are old and have osmosis (osmotic blistering) are not paintable and we would therefore recommend another means of repair or suggest a liner is used.

## **COMMON PROBLEMS WITH PAINTED POOLS.**

### **My Pool Paint is Fading**

Painted pools will begin to fade over time. Nothing will stop this, but you can “brighten-up” the paint by using a suitable pool cleaner such as Muriatic Acid. This will remove any dirt and chalking that can dull a paint finish. After cleaning the pool, rinse extremely well and refill.

### **My Pool Paint is Chalking**

Some painted surfaces will begin to break down over a period of time. The process can result in dull, hazy water, as well as producing a white powdery residue that can rub off on hands, feet and bathing costumes. To prevent this process occurring, water chemistry and water maintenance are essential. The total alkalinity must be in the correct range. If the alkalinity is too low, the pool paint will rub off. Harsh shock treatments will also cause the pool paint to chalk. Only use treatments that are recommended by your pool maintenance company, ensuring you tell them that your pool has a painted surface. Harsh shock treatments like Calcium Hypochlorite will contribute to the deterioration of the pool paint finish.

### **My Pool Paint has Blisters and Bubbles**

Blistering is almost always caused by improper preparation of the existing surface before application of the new paint. The new pool paint must be applied to a clean, dry surface. If the paint is applied too thick, or if the surface is too hot or warm, or if the pool is not cleaned properly, it will blister. Application temperature will also affect the result. Where blisters have occurred, the only option is to repaint the pool or the spots that have blistered.

### **Before You Start**

From the outset, we must make clear that the undertaking of pool repainting can be a long process which will require time and patience to ensure the finish of the new coating will provide you with the maximum lifespan. Please read all Technical Data Sheets and follow the instructions found in the Material Safety Sheets.

## **HOW TO PAINT YOUR SWIMMING POOL.**

As stated previously, the most important element to consider when painting a pool is the preparation. There must be no shortcuts if a successful outcome is required. When planning this project, you **MUST** allow at least 7-10 days of good drying conditions *after completion*, before filling the pool. Do not leave the pool empty for longer than 10 days after painting.

Please follow this step-by-step guide to successful paint application when using Chlorinated Rubber or Acrylic based paint. Acrylic pool paints can be used on a lightly damp surface, and don't require as long a period of dry conditions before painting. Always consult the Technical and Safety Data Sheets and the product label for handling and application directions.

For all **NEW** pools, we recommend that you contact our Technical Team who will be able to guide you on approximate surface drying times: **01202 295 570** or email **enquiries@technicalpaintservices.co.uk**.

For previously painted pools, you must determine the type of pool paint that is currently on the pool. You can use Acrylic Paint on most surfaces after suitable preparation, but you cannot paint a pool that has been previously treated with Epoxy Paint with Rubber based paint or vice versa.

Drain the water from the swimming pool and remove all debris. Be sure to remove any hydrostatic relief plugs.

Scrape all old, loose pool paint off the pool surface. A high-pressure power washer is ideal.

If there are any cracks in the swimming pool shell, they must be cut out with a diamond blade saw or grinder. Cut the cracks 1/4" (6-7mm) deep.

Chip out any divots or loose cement. Caulk the cracks, and patch any large chips or divots with Two Pack Epoxy Filler.

All surfaces must be suitably cleaned with Acid Wash or similar. This will help remove any surface contamination such as grease, body oil, scale and dirt and old powdery surfaces. Please contact our Technical Team for help with this, stating the surface you are painting. Explain that you are cleaning a painted surface in preparation for repainting, or cleaning a concrete surface that has not been painted previously.

Pump out all residual liquid and remove any left-over debris. Remove any liquid from the skimmer and sponge-out any standing water from low spots around steps and fittings. Allow the swimming pool to dry for 4-7 days before painting. Tape off the tile band and fittings with masking tape to prevent paint being applied to the threads, tiles or fittings.

Before painting the pool, scrape any remaining flakes from the pool surface, sweep the pool out and sweep or blow any leaves or dirt from the pool surround. It is prudent to check the weather forecast for potential rain or high winds. If there is a chance of rain, you should wait. When you are confident that the weather will remain clement, open the pool paint and mix it well. You may need to use an electric drill with a paddle mixer. Mix for about 3-5 minutes. If you are applying our non-slip finishes this mixing may take longer and you should also ensure it is mixed periodically during use for an even finish.

Apply the paint with a short-pile, solvent resistant roller. Start in the deep end of the swimming pool, working your way to the shallow end. Use an extension pole on your roller for the deep end walls. Mid-morning is the best time to paint, after any dew has lifted, but not in direct sunlight. Do not apply paint if the temperature is below 10°C or above 24°C. Avoid application of the paint in humid conditions as the paint will not adhere. If you are applying a second coat of paint, wait 2-4 hours for Acrylics and 4-8 hours for Chlorinated Rubber between coats.

As stated at the outset, the last step is very important. You **MUST** wait 7-10 days before filling the swimming pool so your new paint can cure completely (5 days with Acrylic paint). If there is rain during that time, remove any standing water after the rain has stopped. Use a sponge and leaf blower to dry the pool. If the rain lasts more than an hour or two, add a day to the cure time. After the cure time, fill the pool *without stopping* until the pool is full. Do not leave the pool empty.

When the pool is full, restart the swimming pool filter system and adjust the total alkalinity and calcium hardness levels as recommended by your maintenance company or pool supplier, telling them your pool has just been repainted. Resume your normal chemical maintenance program.

Our advice for “Troubleshooting” prior to and during the painting of a swimming pool continues below. Please take time to read this section as it may help you avoid issues and problems later.

## **PAINTING A SWIMMING POOL - TROUBLESHOOTING.**

To undertake the painting of any water-retaining structure is never a straight-forward exercise. Considered preparation should be given prior to starting what is likely to be a significant project. Always take the advice of the paint supplier, including the careful reading of up-to-date and corresponding Technical Data Sheets and Health & Safety Data Sheets. Data Sheets should be supplied with the paints and may often be the source of useful information prior to purchase, along with consultation with our Technical Team.

### **Condition of the pool**

The condition of the pool (and therefore the amount of preparation required before painting), is typically the direct result of general wear and tear through the life of the structure. To some extent, poor condition is very often the fault of the owner (or previous owner) through either neglect or a general lack of knowledge regarding maintenance and upkeep. Leaving a pool empty for long periods of time for example or a constant change of ownership with little or no maintenance is a factor, as is a lack of investment in plant/machinery, cleaning and out of season “mothballing”. When it comes to the application of the paint and quality of the final finish however, its performance will depend almost entirely on the preparation of the pool surfaces themselves.

A swimming pool will be treated to many types of “wear and tear” during its lifetime; pressure or forces from the natural environment in which it has been built (the ground in which it sits, the building in which it is housed), chemical systems including cleaners and sun protection creams or oils, frequency and type of use (family use with children, or purely adult exercise), frost and weather protection etc.

Assuming the original installer of the pool carried out his job professionally, then the pool should be structurally sound for the whole of its life. However, if some unforeseen ground movement occurs or the owner decides to make alterations without considering the integrity of the existing structure, then subsequent problems may be experienced.

Painting a pool successfully depends upon a number of important factors:

- The soundness of the surface.
- Thorough preparation of the surface.
- Compatibility with and condition of previously applied paints and coatings.
- Age of the previously applied paint.
- Structural soundness of the whole pool.
- The way in which the paint is to be applied.
- The conditions, including the weather, temperature, humidity and the time of day the paint is to be applied.
- The time allowed before re-filling.
- The temperature and chemical dosage of the water.
- The amount and type of future “wear and tear” on the pool paintwork.

For all GRP/Glass Fibre pools whether coated or uncoated, please call our Technical Team on **01202 295 570**.

## TROUBLESHOOTING PROBLEMS.

Bubbling or blistering of old paints - Two main causes: one of solvent entrapment, the other through water ingress from behind. If it is the latter, you should check the integrity of the surface.

*Solution: Remove all paintwork back to a clean substrate and re-paint as new. If it is a small isolated problem, rub back to a hard, sound edge, prime using diluted paint and re-paint.*

Old paint is oxidizing or chalking (colour is coming off on the fingers when rubbed or even staining the water) - A sign of aging and or weakness in the old paint film probably caused by overdosing of chemicals and the temperature of water. Do be aware that chlorinated rubber paints do go chalky as they age.

*Solution: The complete paint system should be removed and replaced with a new coating.*

General discoloration and a patchy look - Caused by extensive use over several seasons or more. The effect of chemicals, mould, algae and abrasion especially on the pool floor, sometimes caused by back or ground water coming through the surface.

*Solution: If the paintwork is generally sound, it should be cleaned and treated with Acid Wash, abraded then re-coated using a thinned coat of diluted paint.*

Large blistering on base substrate or floor of pool only. Water in blisters is discolored - This is normally a sign that the base is being affected by moisture build up from the background i.e. water has impregnated the base concrete or moisture was present on the surface at the time of application.

*Solution: The pool needs to be stripped back thoroughly and allowed to dry out. Check the structure and drainage around the pool. Consider re-rendering before repainting. This can also be caused by solvent entrapment - the paint dries too quickly or solvent goes into old, porous paint layers and remains trapped behind the final paint film only to erupt when the pool is filled (if in doubt contact our Technical Team on **01202 295 570**).*

Blistering on walls especially noticeable below the waterline - This is generally caused by solvent entrapment.

*Solution: Nearly always needs to be stripped right back prior to re-coating.*

Paint delaminating and stripping off - Incompatible paint systems used. Poor cleaning of surface i.e. painting over contamination, fats, oils, mould or even algae. Surfaces were not completely dry at the time of application. Especially noticeable at the waterline. Can happen when trying to paint composite surfaces such as Marbelite or Marbeline and GRP, without a special primer or system.

*Solution: Abrade off all delaminating paint and re-coat.*

Minute blistering (smaller than a Five Pence piece) - in large areas, especially seen on external pools - Can be caused by painting in very hot, direct sunlight. The paint will actually boil, creating bubbles, weakening the film, creating pinholes and thereby allowing water in behind the film.

*Solution: Strip off damaged area either totally or locally. Rub back to a sound, firm edge.*

*Prime and re-coat in cooler conditions.*

General paint failure over all the pool area. Have large blisters, loose paint contaminating the water or a strong smell of solvent - Normally due to the existence of too many older layers of paint that will no longer support the application of new paint film. The old paint becomes porous and spongy and readily retains and traps solvents.

*Solution:* *Strip off completely back to the original render by blasting and start again.*

Overall paint failure similar to above but with fewer obvious blisters. A strong smell of solvents, paint remains soft to touch and peels away easily - The newly painted pool has not been allowed to fully dry and the pool has then been filled too soon after application.

*Solution:* *Strip back completely and start again ensuring that sufficient time is allowed for drying.*

Remember, whatever type of surface you are painting and whatever paint you use, it is important to follow the instructions provided, follow recommended safety guidelines and make sure you prepare the pool and the surrounds properly. Preparation is the most important step in pool painting. Without the proper preparation, the paint will not bond with the wall or existing surface. Remember - give yourself plenty of time for preparation and painting, making sure you order your paint well in advance so it is available for use once the surface preparation is complete.

Please remember that the above information is provided as a general guide only and comes from resources available within the industry. Technical Paint Services cannot be held responsible for error in the above information. Each individual problem will have its own unique factors to consider. Before taking remedial action, please contact our Technical Team on **01202 295 570** or email [enquiries@technicalpaintservices.co.uk](mailto:enquiries@technicalpaintservices.co.uk).

Please find below a list of questions to which the answers you provide will help us give you the best possible help. Please include this information when emailing or have it available when calling us.

- What is the construction of the pool? (concrete, tiled, liner; painted or unpainted).
- What sort of coating was used last time? (look in the shed for an old paint tin or if possible, ask the previous owners of the house or the last contractors).
- Is the pool flaking or blistering, is the water cloudy or any other issues?
- Has the pool got any damage to it?
- Please take some photographs of the pool; close-ups of the surface are always good, as well as an overall view.
- If an indoor pool, type of construction of the pool house, average temperatures and humidity levels etc.
- Any other information that you feel will help us to help you.

**Notes:**