Secrets of SUCCESSFUL POOL PAINTING

MARC®

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TABLE OF CONTENTS

Introduction……1

Scheduling the Job……..2

Surface Preparation……..2-4

Selecting Swimming Pool Paint……4-5

Securing Equipment and
Preparing to Paint……6

How Much Paint……6-7

Starting to Apply Pool Paint……..8

Seven Drying Days to Cure……...9

Seasonal Servicing
Extends Pool Life……10

MARC Swimming Pool
Maintenance Products……..11

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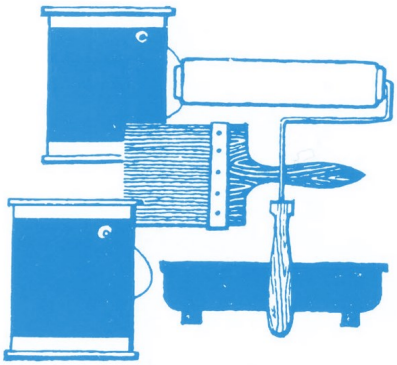
INTRODUCTION

Consider for a moment the conditions a pool paint must endure – water, pressure, chemicals, sunlight. Consider the investment made in the painting of a pool – cost of paint, cost of preparation materials and most of all, cost of labor or time.

The quality of paint is very important, but quality will not overcome the problems associated with poor application. It is absolutely essential to follow the steps outlined in this booklet, and to have responsible conscientious personnel and/or supervision if MARC 83 Swimming Pool Paint is going to perform to the level expected of a quality product.

Ownership of a swimming pool, new or old, requires a careful step-by-step program of recommended maintenance painting. The original investment is reason enough to practice preventive maintenance for pool protection and good service life. When you purchase swimming pool paint, you should get protection for the pool, beauty for the swimmers and spectators, and easy-to-maintain cleanliness. The following seven steps to successful pool painting are based on MARC's detailed research studies of pool painting practices and problems, both in the lab and at pool side.

7 STEPS TO SUCCESSFUL SWIMMING POOL PAINTING....



1. SCHEDULING THE JOB

Once you decide to paint your pool, when is the best time to do it? Either Spring or Fall is the best season. The idea is to avoid extremely cold or hot weather. In northern states, the best time for painting masonry pools is in the Spring or early Summer. Warm, dry weather is a must. Humid, moist air will retard paint drying and cause blistering and peeling. The warm temperature during the recommended seasons produces highly durable coatings with "breathing-type" water repellency.

It is best to avoid painting after a rain. Although a sudden shower may not wash away your day's efforts, after a rain wait until the walls dry out before painting again. Do not paint over frosted or rain-wet surfaces. It is best to paint when the weather is good for drying and you are not handicapped by dust, wind or annoying insects. Painting should be done only from mid-morning, after the dew has evaporated, until mid-afternoon so that the paint will be relatively dry before the sun sets and dampness settles.

Apply MARC 83 Swimming Pool Paint when the air and surface temperature are between 50°F and 90°F for the entire painting and curing process, with no rain in the 7 to 10 day forecast. Even if the air temperature is within this range, if the pool has been in the hot sun for a while, the surface temperature could be over 100°F. This would cause the solvents in the paint to evaporate prematurely, and adversely affect the paint.

In the case of new concrete pools at least two months should be allowed for aging before painting. The pool should be filled with water during that time to leach out any water-soluble salts held in the concrete. This will help to eliminate future reactions between alkalis and the paint. After draining the pool, let it dry for at least one to two weeks.

2. SURFACE PREPARATION

One of the most important steps for success in painting your pool is preparation of the surface before painting. Most swimming pool paint failures occur because of inadequate surface preparation or pool paint application techniques. Correct surface preparation involves hard work and has no short cuts, or "miracle-primer" substitutes. All masonry surfaces must be perfectly clean and completely dry before any paint can be expected to perform well. All cracks, holes and surface breaks must be repaired with a rich grout or non-shrink patching mixture.

MARC 221 Jackhammer Concrete Patch trowels smoothly to repair and patch over spalled, pitted and rough surfaces making it idea for use to repair and fill holes, cracks and broken joints. This product may be used as an overlayment or underlayment.

Almost every pool-painting project will encounter one or both of the following conditions: (A) Bare concrete or plaster finish; (B) Previously painted surface.

A. TREATMENT OF BARE CONCRETE

Unpainted concrete, new or old, is rarely ready to be painted as it stands. It is generally recommended that new concrete or masonry swimming pools age for at least two months before painting. The pool should be filled with water during this period to dissolve salts in the concrete. Plaster-lined pools require at least 30 days to cure. If grease, oil and dirt are present remove with a strong cleaner such as MARC 41. Rinse the surface thoroughly to remove all residue after washing, and allow to dry before etching.

All new concrete pools should be acid-etched with a descaler such as MARC 95SP Swimming Pool Double Strength Descaler. Swimming Pool Double Strength Descaler may be diluted with an equal amount of water before use.

Etching cleans the concrete and prepares the surface to hold paint. It produces a micro-roughening of the masonry finish to make it more porous and to neutralize the alkali on the surface. The etching product should be applied to the concrete at a rate of one gallon per 200-500 square feet. Apply with a stiff brush or sprayer and permit the solution to stand for at least 15 minutes, or until the surface stops foaming and bubbling. Then, hose down several times with plenty of water to be sure that no contaminating materials remain. NOTE: It is extremely important to remove all the acid from the surface or the paint will not adhere well. The surface should dry thoroughly before painting. Protect your hands, feet and eyes from the acid product with rubber gloves, boots and goggles.

B. SURFACE TREATMENT OF PREVIOUSLY PAINTED POOLS

Before repainting your pool remove paint not in good condition – i.e., paint that is flaking, blistering, cracking or chalking heavily. A major cause of pool repainting failures is allowing too many old coats to build up. It is generally advisable to completely remove all paint on the pool every three to four seasons, or after four coats of paint are on the pool. Too many coats of paint left on the pool will result in poor durability of subsequent coats. It is especially important to remove all paint if cracking or "alligatoring" of the paint has occurred. Otherwise, the action of water pressure on the cracks, even if they are very small, will cause lifting of the paint. The old paint must be completely scraped and brushed off with a wire brush, by sandblasting or use of a paint stripper. Thoroughly remove any residual stripper. The pool then must be scrubbed as clean as possible to remove grease and dirt, using hot water and a cleaner such as MARC 41. Use a MARC descaler to remove scale, rust, and stains. Rinse off all cleaners completely, or poor paint bonding will result. Old paint in good condition will show strong adhesion and uniform chalking. Such surfaces may be painted without further treatment. Epoxy paints must be completely sandblasted before applying MARC 83.

All bare and patched areas should be acid-etched by using the same methods as for bare concrete discussed previously. After etching, the pool should be scrubbed and flushed clean with water. Again, it is extremely important that all acid be neutralized and removed. Failure to properly neutralize and remove acid is the single most common cause of pool painting failures using the acid-etching procedure. Only thorough rinsing with water will achieve this purpose. Then allow surface to dry completely before painting. Acid etching is not required on areas where the paint is in good condition, or if the pool has been sandblasted.

3. SELECTING SWIMMING POOL PAINT

The main purpose of a swimming pool paint is to produce a watertight coating that is durable and adds beauty. A properly formulated paint assures adequate protection and good service life; resistance to water, alkali and chemicals; durability; good adhesion to concrete and previously painted surfaces. The right paint saves you money and time.

MARC 83 Swimming Pool Paint is recommended because it forms a tough, durable and chemically resistant film. MARC 83 is a customer-preferred coating on pools in all parts of the country for both indoor and outdoor swimming pools. MARC 83 has binders to hold the various paint ingredients together. After the paint has dried, the pigment (color portion of the paint) and binders remain – all other ingredients evaporate. The binders hold the pigment and safeguard the surface by forming a protective film. MARC 83 Swimming Pool Paint is formulated exclusively for Mid-American Research Chemical Corporation.

PROPERTIES MARC 83 POSSESSES TO OVERCOME POOL PROBLEMS

ALKALI RESISTANCE: Cement surfaces are, by nature, alkaline. These alkalis, which come from the lime in cement manufacture, are caustic and cause corrosion. They can attack and destroy paint films. MARC 83 provides coatings that are alkali-resistant to a high degree.

MOISTURE PROOF: The moisture problem is twofold – the applied paint film must be relatively impervious to water and, at the same time, should be capable of "breathing" to allow moisture to escape from the sub-surface and the paint coating. MARC 83 permits moisture to escape from the pool wall through the paint without blistering or peeling, and without losing its ability for water resistance.

ULTRAVIOLET LIGHT RESISTANCE: Pool surfaces are subject to extreme amounts of sunlight, which is intensified by the water. Ultraviolet light tends to degrade paint. But, MARC 83 provides good resistance to sunlight.

CHEMICAL AND MILDEW RESISTANCE: A predominate requirement for pool paint is chemical inertness. MARC 83 is not deteriorated by the chemicals used in pools or by mold or fungus. MARC 83 will not support the growth of microorganisms such as algae. This helps to eliminate slick and slimy pool walls and floor. You get greater safety and a cleaner pool. Of course, MARC 86 Swimming Pool Algaecide should be used to combat algae in the water.

SPECIFIC ADHESION: This is important for both new and old pools. MARC 83 adheres firmly to new or previously painted surfaces. It does not require the use of special primers – either on painted or new surfaces. However, there are certain paints, such as epoxies, that require special precautions. Epoxy paints exhibit an extremely hard and highly chalked surface. Therefore, epoxy paints should be removed or at least thoroughly roughened by sandblasting before application of MARC 83.

QUICK DRYING ABILITY: Swimming pool paints often dry-to-touch in less than one hour with minimum dirt pickup. For effective performance and maximum water and chemical resistance, it is recommended that a minimum of 24 hours elapse between coats, and that a minimum period of seven days elapse after the final coat application and the filling of the pool. Weather conditions might dictate even longer waiting periods.

STAIN, SCRATCH AND FADE RESISTANCE: This is a must in good swimming pool paints. MARC 83 has excellent resistance to abrasion, staining and discoloration. The paint develops strong, mechanical strength within itself. This tough film holds the color pigments firmly and assures long color retention as well as stain and abrasion resistance.

NON-SKINNING…NON-THICKENING: MARC 83 Pool Paint prevents skinning-over or increased viscosity due to aging. Stability and good life in the pail are two proven features of MARC 83.

4. SECURING EQUIPMENT - PREPARING TO PAINT

A. SUGGESTED EQUIPMENT

MARC 83 Swimming Pool Paint can be applied by brush alone or with a roller. For an ordinary painting, a brush 3 ½ to 4 ½ inches wide will do fine. A long bristle brush is preferred by experienced painters because of its spring and extra paint carrying capacity. A relatively smooth, dense masonry surface can be painted with a roller, if you wish.

Carefully clean your painting shoes before starting to paint. No shoes with nails should be worn in the pool. Sneakers or rubbers are preferred.

B. HOW MUCH PAINT?

A very common cause of pool repainting failures is not applying a heavy enough coat of paint. It is very important that a sufficiently thick coat of paint be applied. A thin coat will have poor durability and necessitate more frequent painting. A goal should be to obtain a coverage of about 250 square feet per gallon.

The amount of paint you will need depends upon the surface to be painted, its area, porosity, texture, relative condition and number of coats required, but average coverage should be about 250 square feet per gallon.

MARC 83 does not require a primer and does not depend upon deep penetration, or an overly thick coating to give good service life. Remember that a gallon of paint is a measured quantity. Coverage depends only upon the penetration and thickness of the coat.

To estimate the amount of paint needed, first calculate the square feet of paintable area. Next, from your knowledge of the condition of the surface, determine its porosity and texture, estimate the square feet one gallon will cover. Finally, estimate the number of coats.

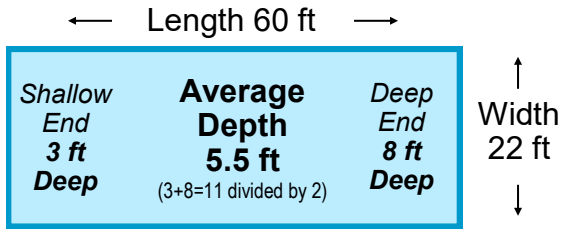
The amount of paint needed is found by multiplying the square feet of paintable area by the number of coats and dividing by the square feet one gallon will cover. Approximate examples of first coat coverages are:

Smooth, dense surface: 250-300 square feet
Porous, rough surface: 200-250 square feet

The second coat usually covers approximately 250 square feet.

EXAMPLE — CALCULATE HOW MUCH PAINT

Measure Square Feet Swimming Pool



WALLS of POOL:
- Shallow End Wall: 3 ft x 22 ft = **66 sq ft**
- Deep End Wall: 8 ft x 22 ft = **176 sq ft**
- Side Walls: 60 ft x 5.5 ft x 2 walls = **660 sq ft**
- **TOTAL WALLS: 66 + 176 + 660 = 902 sq ft**

BOTTOM of POOL:
- Length 60 ft x Width 22 ft = **1320 sq ft**

TOTAL SQ FT:
- Walls **902 sq ft +** Bottom **1320 sq ft** = **2222 sq ft**

GALLONS NEEDED:
- 2222 (sq ft) divided 200 (sq ft per gallon) = **11.11 gallons**
  M-83 Pool Paint for 1 Coat

C. HOW TO MIX THE PAINT

The first coat on bare concrete penetrates and fills surface voids to provide a good base for the final coat.

On previously painted surfaces, the first coat aids in binding and wetting the normal chalking of the weathered paint. It forms a strong base for the finish coat. Thorough mixing is critical for proper pigment dispersal. Extra mixing may be required if the paint has set for some time.

To mix, pour off most of the paint into another pail. Stir that remaining in the bottom of the pail, and gradually pour back the rest of the paint as the stirring progresses. Stirring helps make the color and composition uniform.

Finally, pour the paint back and forth from one container to another several times. This is called “boxing” the paint. The smooth, even paint is now ready to be applied.

5. STARTING TO APPLY POOL PAINT

Naturally, you want the very best possible return on your paint and pool investment, so you’ve probably chosen your favorite color of MARC 83 Swimming Pool Paint. You have also put your pool in good repair, prepared the surface and gotten together the materials and equipment.

However, in each specific pool situation, there’s apt to be something different, something a bit unusual. No doubt you will have some questions or want another’s advice. In any case, contact your MARC representative and get his or her thoughts. Take advantage of his experience.

A. USING THE PAINT

If it is extremely warm you will find it more comfortable to paint the east and south sides of the pool in the morning hours, the west and north sides in the afternoon. With this method, the walls of the pool allow you to paint in the shade. The paint will dry rapidly enough and be easier to apply.

The corner of the pool is a good place to start. Begin at the top and work down from left to right so that the danger of running or dripping over a newly painted area is avoided. Running paint is an indication that the brush is being overloaded.

Whether you follow the sun or finish one side at a time, try to finish the work at a corner of the pool to avoid laps or lines. By ending in the corner, where you leave off and begin will not be noticeable even if several days elapse before you return to finish.

Hold the brush firmly by the handle just above the bristles. Brush the paint on with strong even strokes, holding the handle perpendicular, or at right angles, to the surface. Don't scrub the surface or try to cover a large area with one brush full.

B. PRE- AND POST-PAINTING TIPS

Before you begin painting, it is a good idea to whip the brush back and forth over one hand and run your fingers through the bristles three or four times. This will remove any loose bristles.

Save leftover quantities of paint; a small amount is often all that is required for touch-up work later. Searching for a particular color can be simplified by putting a dab of paint on the pail lid before storing.

6. SEVEN DRYING DAYS TO CURE

The first coat penetrates and fills surface voids to give the finish coat strong adhesion. Under normal conditions (50°F to 90°F and relative humidity under 50%, no rain), allow **24 hours** between coats to assure complete solvent evaporation and film hardening. Allow a full **seven** days after the last coat before filling the pool with water. Even though the paint may feel dry on the surface, if the pool is filled too soon, blistering and peeling can occur. If the humidity is high or rain has occurred, more time may be needed, especially between coats. Indoor pools may require up to 14 days to cure.

7. SEASONAL SERVICING EXTENDS POOL LIFE

Now is the time to plan your maintenance program just as carefully as you select your pool paint. Your swimming pleasure can be spoiled by incorrect or incomplete maintenance after you paint. Follow these simple rules of maintenance and use MARC 83 Swimming Pool Paint to obtain the best possible service life from your pool.

Keep your pool clean with MARC 86 Swimming Pool Algaecide which prevents algae and hazardous slime on the surface of the floor and walls. At least at the beginning of the swimming season and at the end, the pool should be thoroughly scrubbed down. All cracks must be patched and sealed with paint to eliminate any moisture build-up under the coated surface.

Good service life – particularly winter-survival of the surface coating – is only as good as the pool design and construction. The basin must be watertight to prevent hydraulic lifting of the paint. A bituminous outer coating or plastic inter-layer is fairly standard in modern pool construction. Soil drainage around the pool serves the same end.

When a pool is drained the water-saturated masonry will release moisture through the paint film for some time until the moisture in the concrete balances with the atmosphere. When refilling the pool, the process is reversed. These alternating wet and dry conditions are rough treatment for any surface coating and may result in loss of adhesion and damage to the paint. While it may be helpful to keep water in the pool at all times, it is not a common practice and not an absolute necessity if the paint has been maintained as directed in this booklet. It may be advisable to check with the builder of the pool to determine if the pool walls themselves can withstand freeze/thaw conditions of the surrounding ground without damage if the pool is drained over Winter. If water is left in pool over Winter months, poles or logs should be placed in the water to act as expansion points, as this will likely eliminate damage to the pool.

Ownership of a swimming pool is an investment that should be preserved. MARC 83 Swimming Pool Paint features the proper formulation for maximum protection and easy-care maintenance. MARC 83 gives you these benefits:

- Applies easily with brush, or roller
- Dries quickly
- Alkali and chemical resistant
- Stays clean longer
- Easily covers new and old surfaces
- Resists growth of algae
- Breathing-type water repellency
- Good adhesion
- No primers required

MARC SWIMMING POOL MAINTENANCE PRODUCTS

Water Treatment:

MARC 27 Krystal Klear
MARC 86 Swimming Pool Algaecide
MARC 185 Stabilizer

Pool Preparation:

MARC 83 Swimming Pool Paint
MARC 84 Slip Guard Paint
MARC 95 SP Swimming Pool Double Strength Descaler
MARC 221 Jackhammer

Custodial/Maintenance:

MARC 33 Lemon Disinfectant
MARC 49 Multi-Purpose Bathroom Cleaner
MARC 50 Bowl Cleaner
MARC 51 Tile & Grout Cleaner
MARC 54 Odor Counteractant
MARC 55 Drain Opener
MARC 109 Glass Cleaner
MARC 111 Zap Wasp & Hornet Spray
MARC 134 Clobber II Multi-Purpose Insect Spray
MARC 252 Tuff Stuff

For your pool, select a paint you can depend on for long-lasting protection and study the seven steps for painting your pool. Add to the information in this booklet by talking with your MARC representative. He or she can help with many of your questions about pools, and about painting in particular.

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