

AQUATIC TECHNOLOGIES GROUP MANUAL

High Tech Epoxy Coating for Aquatic
Surfaces



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INTRODUCTION

Become an AquaGuard Authorized Dealer

You can become an AquaGuard Authorized Dealer for only \$395.00. Aquatic Technologies Group, LLC is now offering our new online Training Program, with videos, installation manual, spec sheets that will teach our new dealers how to refinish fiberglass, concrete and steel Swimming Pools & Spas. Many of our Dealers now offer AquaGuard Installation on Car Wash Bays, Basements and commercial Swimming Pool Surge Tanks, with the #1 leading Pool Coating in the Pool Industry today.

After you have studied our Training Program you will then take a 60 question test which consists of multiple choice and True/False questions. Upon completing the test with a passing score you will receive your Certificate as an Authorized Dealer along with our Price Booklet, Spec Material and submergible Sample Board to show your customers what their pool can look like when resurfaced with **AquaGuard®**.

With hundreds of thousands of fiberglass, concrete and steel swimming pools and spas that will need to be refinished, by becoming an **Authorized Dealer** you will open new revenue streams to increase your business.

AquaGuard® is the only product on the market today that is approved by the FDA. This will give your Company credibility with Marine Institutions nationwide and Safety concerns for human and marine life. As an **Authorized Dealer** you can offer our 10 & 15 Year warranties to homeowners, schools, government facilities, condominiums, etc.

You will be able to seal and waterproof Car Wash Bays, Basement Walls, School Showers and Water Storage Tanks **just** to name a few, and increase your search engine ranking and increase traffic to your site through our link exchange program.

Aquatic Technologies, Inc.
High Tech Epoxy Lining for Aquatic Surfaces

AquaGuard 5000
Product Application Equipment, Supplies and Tools

- 1) Heavy Duty Airless Spray Pump and Accessories (Spray Application).
- 2) High Pressure Cleaner (3500 psi min).
- 3) **Portland** cement with Vinyl Adhesive by **Quickcrete** concrete products.
- 4) De-watering Pump and Hoses
- 5) Heavy Duty Drill, 1/2" bit, 400-600 rpm.
- 6) Drywall Mixing Paddle.
- 7) Heavy Duty Dual Action Sander - Ryobi Orbital with Collection Bag.
- 8) Heavy duty Grinder (min. 7" disc)
- 9) Portable Propane Space Heater (100,000 BTU min.)
- 10) 4" Makita Grinder with 4" Turbo blade.
- 11) Thermometers (radial dial with 16" stem, 0° - 108°)
- 12) Masonry Trowel
- 13) Solvent - Methyl Ethyl Ketone (MEK)
- 14) Denatured Alcohol - for Clean Up.
- 15) Xylene solvent
- 16) Visqueen or Similar Protective Sheeting
- 17) Red Duct Tape (14 Day Stucco Tape)
- 18) Two - 5 Gallon Polyethylene Pails
- 19) Heavy Duty Towels and/or Rags
- 20) Razor Knives and Extra Blades
- 21) **Ultra Pure Silica Sand** (Sharp Grip)
- 22) (8) High Quality Epoxy Rollers (Naps can be purchased with AquaGuard Orders)

Safety Equipment and Protective Clothing

1. Safety Glasses or Goggles
2. Protective Gloves
3. Organic Vapor Masks and Replaceable Cartridges (Spray Application)
4. Dust masks
5. Paper Spray Suit or Equivalent (Spray Application or for Sanding fiberglass Pools).
6. First Aid Kit

NOTE: Most Equipment can be purchased at your local Hardware Store
Consult Aquatic Technologies for equipment recommendations or safety equipment.

Titan Spray Equipment

PowrTwin 12000 XLT DI

Heavy Material Spraying System

A unique fluid section design and EZ- Swing-in style frame make this powerful airless sprayer ideal for applying ultra heavy materials. The PowrTwin 12000XLT DI is the most portable gas and electric heavy material sprayer available today.

**TITAN™ SPEEFLO®
POWRTWIN® SERIES
12000XLT DI**



Specifications

Gas Engine	9 hp Honda
Electric Motor	2hp Extended Life-DC
Max. Tip Size - Gas	1 gun - .068"
	2 guns - .040"
	3 guns - .034"
	4 guns - .030"
	5 guns - .026"
	6 guns - .024"
Max. Tip Size - Electric	gun - .036"
	2 guns - .0263 guns - .019
Max. Flow - Gas	3.15 gpm (11.91pm)
Electric	1.25 gpm (4.731pm)
Max. Operating Pressure	3,300 psi (22.8 MPa)
Cycles Per Gallon	40
Paint Outlet Filter	5 mesh
Filter Area	18 in2
Frame:	EZ-Swing4n
Sprayer Dimensions:	46(L) x 27 (W) x 35(H)
Sprayer Weight:	188 lbs - Gas (85.3 kgs) 192 lbs Elec (87.1 kgs)

Heavy Material Spraying System

A unique fluid section design and EZ- Swing-in style frame make this powerful airless sprayer ideal for applying ultra heavy materials. The PowrTwin 6900XLT DI is the most portable gas and electric heavy material sprayer available today.

Specifications

Gas Engine	5,5 hp Honda
Electric Motor	110v or 230v Extended Life-DC
Max. Tip Size - Gas	1 gun - .122 mm (.048?) 2 guns -84 mm (.033?) 3 guns - .58 mm (.023?) 4 guns - .61 mm (.019")
Max. Tip Size - Electric	1 gun - .91 mm (.036?) 2 guns .66 mm (.026?) 3 guns .48 mm (.019?)
Max. Flow - Gas	2.15 gpm (8.41pm)
Electric	1.25 gpm (4.73 lpm)
Max. Operating Pressure	3,000 psi (207.3 mpa)
Cycles Per Gallon	55
Paint Outlet Filter	5 mesh
Filter Area	18 in²
Frame:	EZ-Swing-in
Sprayer Dimensions:	43(L) x 27 (W) x 35(H)
	Sprayer Weight 149 lbs Gas (67.3 kgs) 165 lbs Elec

TITAN™ SPEEDFLO® POWRTWIN® SERIES 6900XLT DI



(74. kgs)

Black Cat Portable HVLP (BC100H)

The BLACKCAT is a portable HVLP system that allows the user to spray with a constant 10 psi at the gun, unlike competitive units. The 3 HP. V-Twin oil-less compressor is quiet and a proven workhorse. Match that with our 2.5 gallon pressure tank, cart, 25 air and fluid hose and Lynx L10011 and you have the most uniquely designed portable unit available.

Specifications

Electric Motor 120v/single Phase (14 AMP)

Compressor **3 hp V Twin oil-less**

Spray Gun **Cougar/Bobcat AAA Gun**

Air Tank **2.5 Gallon**

Pump **14.1 Stainless Steel**

Max. Flow- Gas **2.1**

Hose Design

Max. Operating Pressure **120 psi! 80 psi pressure pot**

and fluid hose and Lynx L100H

Filter Area

Frame: **EZ-Swing-in**

Sprayer Dimensions:

Sprayer Weight:



25' air

AQUATIC TECHNOLOGIES

How to drain a pool

Pool Renovation Guide: How to Empty a Fiberglass, Gunite or Concrete Swimming Pool

Before you begin any pool renovation project, including the application of an AquaGuard pool resurfacing product, you need to properly drain the pool. Even if you have been told that your pool will never need to be emptied, there comes a time for all pools to be repaired and draining them is the first step.

Pool Renovation Rule #1 - Don't Do More Damage When You Prep

Preparing for a pool renovation by emptying it sounds simple enough, however it is not the same as letting the water out of your bathtub. The underground water pressure must be relieved in order to avoid damage to the pool when emptying it. Practically every type of fiberglass, gunite or concrete swimming pool has a safety feature built in to prevent the hydrostatic pressure damage that can occur. Once this type of damage occurs to pools, repair may or may not be possible.

These precautions are extremely important for all pools, but especially for lightweight fiberglass pools. These are most at risk of lifting due to a hydrostatic pressure change caused by draining a pool. However, damage, including lifting, can also occur with the other types of pools. Unless a fiberglass pool is equipped with a built-in underground water pressure relief system, you should not empty it during the rainy season. Luckily most are equipped with this system. If you notice standing ground water near your pool following rain, you will likely encounter the problem of pool lifting.

The information we provide here is a guide to help prevent additional damage to pools. The repair you are working on need not cost more money and time simply because of errors made during the preparation stage of the pool renovation.

Draining a Pool with Hydrostatic Relief Valves Prior to Pool Renovation

Many pools have hydrostatic relief valves near the bottom of the steep slope. It is important to remove them as soon as you can reach them during the pool draining process. If there is a bottom drain in your pool, open it to check if it has a hydrostatic relief valve. When you find it, unscrew it and remove it once the pool has drained.

Often you will be left with about a foot of water that simply won't drain. A sump pump can take care of it; however you need to act quickly and remove the remaining water to allow access to the bottom drain, so the cover can be removed to avoid damage to the pool.

Once the valve is open, you will need to insert a hose into it, threading it through a 3 to 6 foot long pipe you will place in the valve first. When the hose is just above the top of the coping, attach it to a pump to remove water beneath the pool. This water is plain groundwater and therefore contains no pool chemicals to worry about. Be sure the water shoots out at least 50 to 100 feet away from the pool. Step 1 of preparing for your pool renovation is complete.

Draining a Pool with Standpipes Prior to Pool Renovation

Some pools have standpipes located near the pool. These pipes are relatively inconspicuous and are the result of water problems encountered during the original pool construction. Usually located 10 to 30 feet away from the pool, standpipes are under a foot high and are sometimes equipped with a cap. They are also occasionally found under a diving board or near the filter and pump.

There are many instances where a standpipe equivalent is substituted during pool construction, when a high water table was discovered. If you see a small white or black PVC pipe sticking out of the ground on the edge of the deck near the grass, which is just shorter than the top of the deck, you have found the standpipe equivalent. Sitting in a 4 by 4 foot stone pit, it is usually not even noticed by most people.

In order to use the standpipe or standpipe equivalent to reduce the hydrostatic pressure on the pool, you will need to put a long hose into the pipe. Connect the hose to a utility pump in order to drain the underground water.

Draining a Pool with Well Points Prior to Pool Renovation

Pool construction in certain areas, such as near beaches and other low lying areas, require well points. They may be installed around the complete perimeter of the pool or only on one or two sides. However, it is pretty uncommon to have a pool with well points. If you are doing pool resurfacing on one, you will want to hire an experienced professional to take care of draining the pool.

Pool renovation with AquaGuard is quick, easy and gives a top quality result. Get started now by safely draining your pool and dealing with structural damage.



COATINGS FOR AQUATIC ENVIRONMENTS
www.aquaguardcoatings.com

Office (772)225-4389
 Fax (772) 334-7243

AQUAGUARD 5000

DESCRIPTION: AQUA GUARD 5000 is a thick-film, 100% solids reinforced, propriety formulated epoxy based polymer designed for use as a protective and decorative coating for aquatic environments. AQUA GUARD 5000 is a two component system; Resin and Hardener.

TYPICAL USES:

- Concrete and aluminum swimming pools and spas.
- Fiberglass pools and spas.
- Steel, concrete, masonry fountains, and reflection pools.
- Aquatic theme parks.
- Car wash tunnels.

BENEFITS:

- High-build (20-60 mils), easy to install, spray-applied application process.
- Flexible to reduce coating stress caused by physical or thermal forces.
- Excellent adhesion to steel, concrete, and fiberglass substrates.
- Tough, long-lasting beautiful finish.
- Abrasion and impact resistant.
- VOC compliant.

CHEMICAL RESISTANCE: Summarized; for a more comprehensive list of chemical resistance, please refer to our Product Resistance Data Guide. Films cured for seven (7) days at 77°F are unaffected after one (1) year immersion at ambient temperatures.

Alum	Hydrochloric Acid (mild)	Sodium Phosphate (50%)
Ammonium Hydroxide (mild)	Mineral spirits	Starch
Benzene	Oil, animal, vegetable	Sulfuric Acid (10%)
Brine Solution	Oil, petroleum	Water, Distilled
Chlorine	Sodium Bicarbonate	Water, salt (20%)
Detergents, diluted	Sodium Chloride (20%)	Water, potable
Gasoline, all grades	Sodium Hydroxide (10%)	Water, waste

PHYSICAL PROPERTIES:

Flexural Strength8-10,000 psi

Compressive Strength12-14,000 psi
Tensile Strength5,000 psi
Bond Strength2,000+ psi

RECOMMENDED THICKNESS:

40 - 60 Mils., DFT Spray-on

20 - 30 Mils., DFT Roll-on

COLORS: Standard Blue, Gulfstream Blue, Onyx, and White.

COVERAGE (actual):

(spray) Approximately 125 square feet/unit @ 60 mils.

(roller) Approximately 250 square feet/unit @ 30 mils.

DRYING TIME:

Tack Free - 2 to 4 hours at 77° F

To Handle - 4 to 6 hours at 77° F

CURING TIME: 24 Hours at 77° F and/or until a minimum Barcol Hardness of 65 is obtained.



COATINGS FOR AQUATIC ENVIRONMENTS
www.aquaguardcoatings.com

Office (772)225-4389
 Fax (772) 334-7243

AQUAGUARD 5001 Sealer/Primer **PRODUCT DATA SHEET**

Description: AG 5001 is a 100% solids epoxy primer. Two-component system; Resin and Hardener. AquaGuard 5001 is a very low viscosity, solvent free epoxy resin curing agent based on the new light colored breakthrough in phenalkamine technology. Designed especially for 100% solids coatings has an excellent balance of cure speed and pot life, which enables coatings to be applied with conventional spray equipment and provide an increased application window for the heavy duty protective coatings industry.

Typical Uses: AquaGuard 5001 phenalkamines feature rapid cure and property development at ambient and low temperatures, superior water resistance, and good adhesion to marginally prepared surface (including rusty, cold, wet or damp surfaces). Most epoxy phenalkamine coatings show no blush even under cold and damp conditions.

APPLICATIONS: One or two coats depending on the porosity of the surface.

100% solids epoxy primers, direct to metal, concrete, masonry, mastics, and mid-coats for marine (especially ballast tanks and edge retentive areas), industrial maintenance, tank, pipe, and railcar applications. Coatings may be tinted.

ADVANTAGES:

- Excellent combination of rapid cure and long pot-life at both ambient and low (< 40°F) temperature
- Superior corrosion resistance
- Outstanding adhesion to poorly prepared surfaces
- All season cure
- 100% Solids
- Non brittle
- Good chemical resistance

Weight, lbs/gal	9.5 +/-0.5
Theoretical Coverage, mil. sq. ft./gal	1600
Recommended Coverage, mil. sq. ft./gal	3-5
For steel surfaces
VOC Content (mixed), g/l	<100
Flash Point (mixed). °F	>200
Mix Ratio, Ratio, parts A & B	2:1
Pot life, minutes @ 77°F	35
Color	AMBER

Coverage to Achieve Dry Film Thickness, sq.ft./gal (actual-allows for approximate loss of 15%)

@ 3 mils..... 453

@ 5 mils 272

@ 8 mils 170

Drying Time @ 77°F and 50% relative humidity

To Touch 4 hours

To handle6 hours

To topcoat 8-12 hours

Note: Application of an immediate application of top coat shall be applied after AG 5001 has dried tack free or while it is tacky or pliable. If re-coat time exceeds 1 week, the surface must be mechanically abraded and re-primed with AG 5001. Do not allow AG 5001 to puddle.

Cure Time @ 77°F and 50% relative humidity.

To touch 4 hours

To handle..... 6 hours

To topcoat 8 - 12 hours

*Force curing is required for low temperature applications to expedite curing process.



All AquaGuard products have been tested with SGS US Testing Companies that are Accredited and Registered Laboratories with the FDA.

AQUAGUARD 5000

FDA APPROVED EPDXY SYSTEM: DESCRIPTION:

AquaGuard 5000 is a room temperature curing, two component, epoxy potting compound, adhesive, and coating system. AquaGuard Coatings meet the Food and Drug Administration (FDA) regulations permitting use in food contact applications. When properly cured, these products comply with the FDA regulations of Title 21 Code of Federal Regulations under Sections 175.105 and 175.300, CPC Load 16CFR 1303 — Soluble Heavy Metals ENTI Part 3 ASTM F 96307.

FEATURES:

*Excellent adhesion

*Excellent chemical and corrosion resistance *Meets FDA requirements

Subject: AquaGuard 5000 FDA Compliance (21CFR 175.300)

References: 21 CFR 175.300

AquaGuard 5000 Product Information bulletin and MSDS
SGS Testing Company Extraction Test Reports

Extraction test conditions and results for AquaGuard 5000 applied and cured at 77°F and conducted per 21 CFR 175.300 requirements by SGS Testing Company is summarized below.

EXPOSURE TEST	REQUIRED	RESULT
Water, 24 hours @ 120°F	Less than 0.5 mg/in'	<0.1 mg/inz

*Coating for repeated use not to exceed 0.5 mg/inz nor that amount that would equal 0.005% of the water capacity of the container in mg divided by the food contact surface area in square inches

Test results allow use of AquaGuard 5000 as a lining in pools, spas, fountains and Marine Habitats. FDA regulations, test conditions, requirements, and acceptability of linings for specific food types and conditions of use under Code of Federal Regulations, Part 175, Section

300. Product compliance requires proper mixing, application, and cure prior to service per AquaGuard Product Information Bulletin recommended guidelines. Facility owners should

review 21 CFR 175.300 to verify linings selected meet requirements needed for food types and conditions of use at their facility.

Test Report

No.2691702-CH01

Date: March 27, 2012

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Aquatic Technologies Group
1820 NE Jensen Beach Blvd, # 580 Jensen
Beach, FL 34957
United States

The following sample(s) was/were
submitted and identified by/on behalf of
the client as: **Aquaguard 5000 Liquid Color: White**
Sample Received Date: **3/5/2012**
Testing Period: **3/20/2012 — 3/26/2012**

Test Requested : Please refer to the result summary.
Test Method & Results : Please refer to next page(s).
Result Summary

Test Requested	Conclusion
US FDA 21 CFR 175.300 (Resinous and Polymeric Coatings) — Determination of Amount of Extractives	PASS

Signed for and on behalf of SGS North America

-

Christina Crimi

Assistant Laboratory Manager, Chemistry
Laboratory

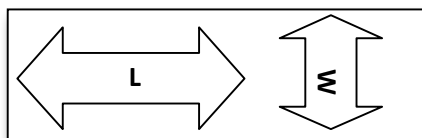
Prepared By:Veronica Marrero

Report Writer, Chemistry Laboratory

Swimming Pool Water Calculator

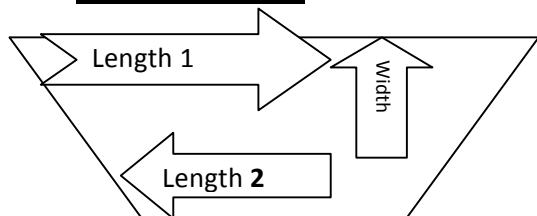
It is important for the pool operator to know how to calculate pool capacity. Without the knowledge of the pool's approximate capacity in gallons the operator cannot determine the pool's required flow rate or actual turnover rate, dosage rate for addition of chemicals, or leakage and evaporation rates.

Rectangle Shape:



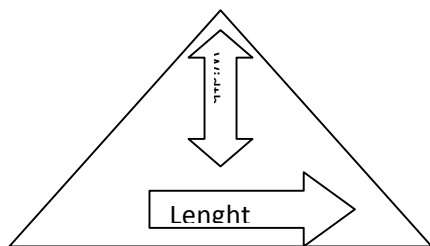
Formula: Length X Width X Average Depth X 7.5 = Gallon Capacity

Trapezoid Shape:



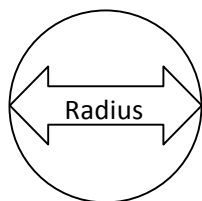
Formula: (Length 1 + Length 2) ÷ 2 X
Width X Average Depth X 7.5 = Gallon
Capacity

Triangle Shape:



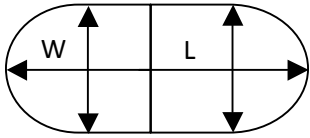
Formula: (Length X Width) ÷ 2 X
Average Depth X 7.5 = Gallon
Capacity

Circle Shape:



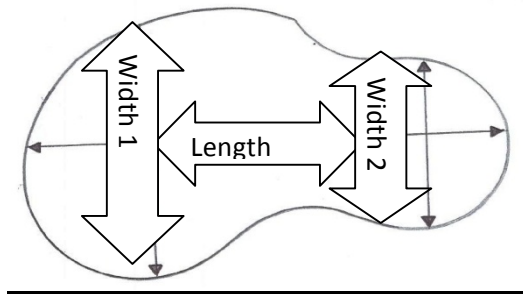
Formula: 3.14 X Radius X Radius X Average
Depth X 7.5 = Gallon Capacity

Oval Shape:



Formula: (Length X Width) X Average
Depth X 5.9 = Gallon Capacity

Kidney Shape:



Formula: (Width 1 + Width 2) ÷ 2 = Width
Width X Length X Average Depth X 5.9 =
Gallon Capacity

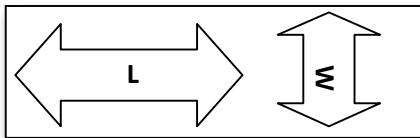
Note: The above formulas can only give a near approximation of the actual pool volume. Other factors may also have to be considered, i.e. if the pool has extremely sloping sides then the pool capacity should then be multiplied by a factor of 0.85.

Note: There are 7.5 gallons of water in one cubic foot.

Swimming Pool Square Feet Calculator

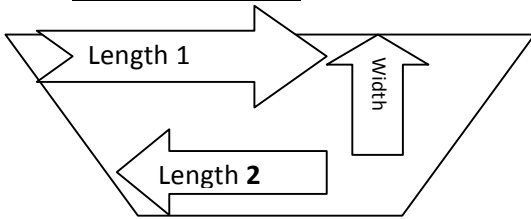
It is important for the pool operator to know how to calculate pool square feet. Without the knowledge of the pool's approximate square footage the operator cannot determine amount of AquaGuard Primer/Sealer and Top Coat needed per job and costs. **NOTE: Formulas are based on 3-6 foot depth.**

Rectangle Shape:



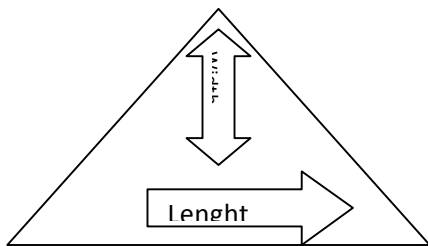
Formula: Floor = Length X width = X1,
Walls = Average Depth X Perimeter = X2.
Add X1 + X2 = Square Feet of Surface

Trapezoid Shape:



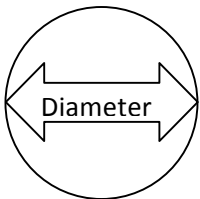
Formula: $(L1 + L2) \div 2 \times W = X$,
Perimeter X 4.5 = X1.
Add X + X1 = Square Feet of Surface

Triangle Shape:



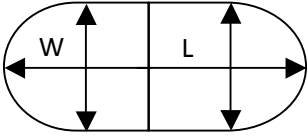
Formula: Floor = $(\text{Length} \times \text{Width}) \div 2 = X1$;
Perimeter X Average Depth = X2
X1 + X2 = Square Feet of Surface

Circle Shape: (NOTE: Radius = 1/2 of D)



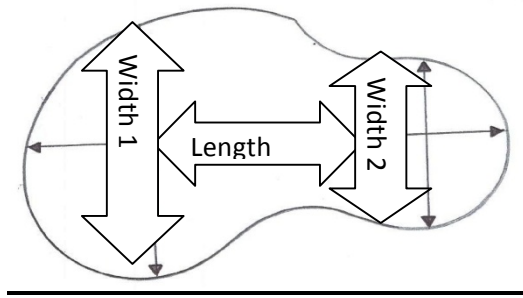
Formula: Floor = $3.14 \times \text{Radius} \times \text{Radius} = X$
Perimeter X Average Depth = X1
X + X1 = Square Feet of Surface

Oval Shape:



Formula: (Length X Width) X 1.65 =
Square Feet of Surface

Kidney Shape:



Formula: (Width 1 + Width 2) ÷ 2 = Width
Perimeter X Average Depth = X
Width + X = Square Feet of Surface

Note: The above formulas can only give a near approximation of the actual pool volume. Other factors may also have to be considered, i.e. if the pool has extremely sloping sides then the pool capacity should then be multiplied by a factor of 0.85.

Note: There are 7.5 gallons of water in one cubic foot.

FIBERGLASS POOL INTRODUCTION

AQUAGUARD® 5000 is the number one fiberglass refinishing product in the nation for sales and reliability. No other product available can compare to the proven record or longevity. This is why swimming pool refinishing contractors who resurface fiberglass pools look to AquaGuard® 5000 for all their pool refinishing needs.

Every fiberglass swimming pool and spa will develop blistering or cobalting and will need refinishing after 10 -20 years. As the gel coat finish wears, many fiberglass pools and spas, develop blisters called [Osmotic Blisters](#) or Black Dots called [Cobalting](#).

AquaGuard® 5000 Fiberglass Pool Resurfacing products are easy for the Do It Yourselfers and can save you thousands of dollars. We will teach you with detailed instructions on applying our fiberglass pool coatings at [Fiberglass Preparation of Surface and Repair](#).

After the preparation and repairs have been completed our thermosetting epoxy coating can be installed with a roller. By using a 2-3 roll coating process to ensure an effective seal in the fiberglass. AquaGuard® finished product is a monolithic shell that resists chemicals and the test of time. AquaGuard® 5000 coatings is the total solution to fiberglass pools and spas and commercial fiberglass surge tanks. Unlike dangerous DIY fiberglass coatings (see [Fiberglass Epoxy Resin Side Effects](#)) AquaGuard® is safe for the whole family with [FDA Approval](#).

AquaGuard® coatings benefits are the proven product on the market to date.

- High build (20-30 mils) easy to install roll applied application process
 - Flexible to reduce stress caused by physical or thermal forces
 - Excellent adhesion, bond strength of 2500 psi to fiberglass substrates
 - Tough, long lasting, beautiful finish and the best warranties in the business
 - Abrasion and impact resistant and VOC Compliant
 - FDA Approved – safe for the whole family and pets
 - Algae resistant – Reduces chemicals 40-60%
-

AQUAGUARD CAR WASH PROTECTIVE COATING-INTRODUCTION

AquaGuard 5000® car wash coating is exactly what your car wash system needs. Car wash tunnels face challenges that no other environment faces. Damage from water, mildew, algae, fungi, chemicals, soaps and moisture are normal issues for car wash tunnels. Traditional waterproofing products simply can't withstand such conditions.

AquaGuard 5000® is applied in a continuous coating to effectively seal the surfaces of the car wash, while eliminating any chance of water getting into it. You will be amazed with the professional, attractive look that comes with an AquaGuard 5000® coating Finish. It is easy to clean and maintain and is made to outlast other waterproofing products.

High performance, 100% solids, epoxy Phenolic resin with proprietary alkali curing agents. Reinforced with proprietary additives for physical strength.

Requires 2-3 coats – 1 Unit will provide approx. 600-700 Sq. Ft. or single Spray Application. VOC Compliant.

AQUAGUARD CW – PRIMER/SEALER

DATA INFORMATION

Description: AG CW is 100% solids epoxy primer. Two-component system; Resin and Hardener. AquaGuard CW is a very low viscosity, solvent free epoxy resin-curing agent based on the new light colored breakthrough in phenalkamine technology. Designed especially for 100% solid coatings has an excellent balance of cure speed and pot life, which enables coatings to be applied with conventional Roll on Equipment and provide an increased application window for the heavy-duty protective coatings industry. Moisture Tolerant

HOW DOES **AQUAGUARD®** WATERPROOFING SYSTEM WORK FOR CAR WASH BAYS COMPARED TO OTHER SYSTEMS

Aqua Guard's Primer is state of the art 100% solids, with a very low viscosity, solvent free epoxy resin curing agent based on the new breakthrough in phenalkamine technologies. Superior water resistant and good adhesion, **AquaGuard® Car Wash Primers** will soak in to the concrete capillary and expand thus creating a thin film moisture barrier. Two coats may be necessary depending on the porosity of the surface.

AquaGuard® car wash coating, is a 100% solids, epoxy Phenolic Resin with proprietary Alkali curing agents. The product is formulated as high build system designed to be sprayed in a single coat or 3-coat roll on System, leaving a beautiful monolithic system throughout the Car Wash walls and floors.

AQUAGUARD BASEMENT PROTECTIVE COATING- INTRODUCTION

An effective basement sealer coating is a must for anyone with a basement. Basements new and old are often damp and drafty. Because they are always exposed to moisture from the ground, they often deteriorate more quickly than other parts of the house. In fact, it is hard to even make a basement look good, as paint doesn't bond well to concrete. However, AquaGuard® Basement Coating soaks into the concrete of your basement floor and walls and expands in order to create a moisture-proof barrier that also looks good.

AquaGuard® created their basement coating based on our 34 years of experience in pool coatings. If it can stand up to the harsh chemicals and constant exposure to water in a pool, it can also do a great job sealing a basement. AquaGuard® basement coating is the best in basement waterproofing and reinforcing.

High performance, 100% solids, epoxy Phenolic resin with proprietary alkali curing agents. Reinforced with proprietary additives for physical strength.

Requires 2-3 Roll Coats – 1 Unit will provide approx. 600-700 Sq. Ft. or a single spray Application. VOC Compliant.

AQUAGUARD BP – PRIMER/SEALER

DATA INFORMATION

Description: AG BP is 100% solids epoxy primer. Two-component system; Resin and Hardener. AquaGuard BP is a very low viscosity, solvent free epoxy resin-curing agent based on the new light colored breakthrough in phenalkamine technology. Designed especially for 100% solid coatings has an excellent balance of cure speed and pot life, which enables coatings to be applied with conventional Roll on Equipment and provide an increased application window for the heavy-duty protective coatings industry. Moisture Tolerant

Please review Application Recommendation for Concrete.

WATERPROOFING & BASEMENT QUESTIONS

How does your waterproofing system work for basements compared to other systems? *AQUAGUARD*[®] PREVENTS water from coming in. *AquaGuard*[®] also blocks out the vast majority of radon.

What about water penetration due to freezing weather? With our basement waterproofing system you no longer need to worry about water penetration due to freezing weather or temperature changes.

My basement is currently wet; can I still use *AquaGuard*[®]? In most cases we need to dry the basement first, we then apply our *AquaGuard*[®] Basement Systems. However, please call for a Free Evaluation and we will figure out a solution to your problem.

Do I have to leave the house while you are working? *AquaGuard*[®] has fewer odors than regular latex house paint AND IS VOC COMPLAINT.

My concrete basement walls are brittle, how will *AquaGuard*[®] help? *AquaGuard*[®] seals and saturates the concrete giving it more strength.

My Basement is always moist and cold, how will *AquaGuard*[®] help me? *AquaGuard*[®] insulates the basement, which keeps your house from losing heat.

What if I have water weeping in? We recommend drilling a hole with a large bit thru the weeper to the outside of the wall or slab. Vacuum water with a wet/dry Vac system. Fill the hole with paper towels, then plug with Hydraulic Cement. Once dry apply *AquaGuard*[®] **5001 Primer**.

Does it work? *AquaGuard*[®] leaves a monolithic shell throughout the basement floor and walls. *AquaGuard*[®] is hurricane and floor tested, and does not require digging to install on the outside of the foundation. Our Process works **GUARANTEED**.

AQUAGUARD® 5000
APPLICATION RECOMMENDATIONS
FOR CONCRETE, PLASTER & FIBERGLASS
SWIMMING POOLS, SPAS & FOUNTAINS

Section 1 – Introduction

- 1.1 This document has been prepared to establish acceptable practices and guidelines for application of **AquaGuard®** epoxy coating products on swimming pool & spa surfaces. These recommendations are intended, to assure that the restoration of the swimming pool or spa surface will meet the manufacturer’s criteria for the proper application of **AquaGuard®**.

The procedures outlined in these recommendations apply to all concrete or plaster swimming pools, spas and fountains.

Section 2 – Preliminary Preparation

- 2.1 All pools should be drained away from the pool itself, not in the immediate area. Utilize storm drains when available, no less than one hundred feet away from pool.
- 2.2 If necessary, groundwater should be stabilized by removing the hydrostatic plug at the bottom of the drain. It may also be necessary to install an overhead well point if groundwater is higher than 24 inches above the pool bottom. You may consult a pool professional.
- 2.3 Remove or cover any hardware, hardware accessories, plates, machined surfaces, light fixtures, or other similar equipment to avoid contact with the **AquaGuard®** epoxy material. Apply 1-2 rows of Red Duct Tape to waterline tile – this is a 14 day tape and may be purchased at Home Depot or Sherwin Williams, or similar no residue duct tape.
- 2.4 Dewatering a Fiberglass Pool - There are many Fiberglass Pools that were installed with side wall mount main drains. And no underground well point found at the deep end of the pool. In these circumstances we recommend the following procedure: Drill a 1” pilot hole at the lowest point of deep end to allow ground water into the pool. Keep a sump pump on till ground water has completely percolated from the ground for neutral balance. Now drill a 2 ½ “ hole with a hole saw bit, you will need to install a SP1022 fitting into the floor with 4 stainless steel self-taping screws (#10 1/1/2 length) and fast set marine 5200 Silicone. Once installed let dry 1 hour then hook PVC pipe to overhead Pool Pump, let run for 24 hrs. per day during project. Once filling remove pipe and
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install a Hayward 1 ½ in. flat vacuum cap to fitting with Silicone Sealant (NOTE: All parts available with order).

- 2.5 Installing Waterline Tile to a Fiberglass Pool or Spa - Level Waterline with a 3/8" clear 50' Tube or Laser. Mark Pool every 6" with a Pencil. You will need Fast Set silicone (from Aquatic Technologies) and Power Grab (Home Depot). Apply 3 rows Fast Set and 2 rows Power Grab every 3-4 ft. Apply tile immediately and let dry 24 hours. Grout Tile with Acid Resistant Grout, let dry overnight. Next Day tape tile completely with Red Duct Tape. Apply **AquaGuard®** Trowel Patch to top and bottom of Pool tile, this will secure the tile from water intrusion or lifting off. Let dry 6-12 hours to set then sand if necessary. Now begin **AquaGuard® 5000** coating Application. Note: Tile & Adhesive available from www.poolbright.net.

Section 3 – Surface Preparation

- 3.1 Surface preparation is the most important step in the application of **AquaGuard®** Coating. Improper surface preparation is responsible for most of the problems associated with dis-bonding or delamination of a coating material on concrete, steel or fiberglass surfaces. As much care as possible must be taken to insure good surface preparation.
- 3.2 Before applying **AquaGuard®**, the entire surface must be thoroughly cleaned using a high pressure cleaner to remove any loose Marcite, dirt, grease, oil, release agents, or other surface contaminants or residue. In some cases, a diluted solution of trisodium phosphate (TSP) and water can be used to remove stubborn oil and greases (1/3 cup to 5 gallons water). A diluted solution of 50/50 Muriatic Acid should be used to etch all concrete surfaces. After acid washing, a solution of sodium bicarbonate must be used to neutralize the acid and maintain proper pH balance. Fiberglass surfaces should be profiled by using an orbital sander with 60 grit sanding paper. After the above steps have been completed, **THE ENTIRE POOL MUST BE THOROUGHLY RINSED WITH WATER TO REMOVE ANY ACIDIC RESIDUE AND TO RESTORE NEUTRALITY.**
- 3.3 Thoroughly inspect the surface area to determine the extent of any damage or degradation in the existing cementations surface. Check for hollow spots, cracks and any other defects. Repairs should be made with hydraulic cement or **AquaGuard® Epoxy Trowel/Patch Kit**. Repairs must be thoroughly dried and cured prior to the application of the coating material. **All repairs to the surface should be sanded or ground smooth so that the repaired area does not show through the epoxy topcoat.**

The immediate areas under waterline tiles, around light fixtures, returns and drains should be sealed with an epoxy patch kit to help prevent leaking. The entire surface must be free of dirt, oil, and any loose cement prior to application of the coating material.

- 3.4 When repairing blisters in a fiberglass pool or spa you must grind the blister out and make smooth. Once water is released let dry for 24 hours. Fill all blisters with **AquaGuard® Patch** material, (this is a 1 quart kit with applicator tool). Fill in blister, let dry 4-6 hours (ambient temperature 76°F and up). Sand smooth with orbital sander and 60 grit sand paper.

Section 4 – Application of AquaGuard® 5001 Primer/Sealer for Concrete & Plaster Pools Only

- 4.1 **All personnel should wear proper safety equipment and protective clothing during the handling, mixing and application of all AquaGuard® products. This includes protective eye wear, OSHA approved vapor masks and soil resistant gloves.**
- 4.2 Thoroughly tape and cover areas that are not to be rolled with the coating material (tile, returns, pool light, etc.) to insure that these areas are adequately protected. The lower water tile line shall be taped 1/8 inch above the bottom of tile edge to insure ease of tape removal and a good bond. Or undercut all tile lines with a diamond blade approximately 1/8 inch in depth at a 45° angle. This cut can be filled with the initial sealer coat, and continuously filled when roll applied. We do offer trowel/patch kit for all derogated areas.
- 4.3 **AquaGuard® Primer/Sealer should be used at a temperature of 80-85°F, add one (1) gallon can of activator to the five (5) gallon can of resin. Mix 2.5 minutes with a Drywall mixing paddle. NOTE: Always mix product counter clockwise to reduce air entrapment and splash out. Never dilute the primer units, and they may be split in half (pre-mix resin 5 gallon can first for 1.5 minutes for proper blending).**

4.4 **PRIMER/SEALER APPLICATION DATA**

Working Time	45 Minutes
Pot Life	35 Minutes at 77°F
Curing Time	6-24 Hours depending on Geographic Area and Ambient Temperatures

- 4.5 Prior to application of the Primer/Sealer, inspect the entire pool surface to insure that the surface is clean and completely free of any dust, dirt, or any other superficial residues. An industrial grade vacuum may be used to clean the surface. Wipe all Fiberglass pools and spas down with MEK or Acetone Solvent. This will help with a mechanical bond. NOTE: All **AquaGuard®** products should be installed with 2-3 installers per coat for ease of application or split unit in ½.
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- 4.6 Roll one coat of **AquaGuard® 5001 Primer/Sealer** to the dry concrete or plaster pool surface (pool must not be wet). Coverage for the Primer/Sealer is approximately 650-750 square feet per unit of product. Actual coverage will vary depending on the porosity and absorption rate of the surface.
- 4.7 The Primer/Sealer shall be applied to the entire surface with 3/8" X 9" Phenolic nap core roller. The Primer/Sealer must dry for a minimum of 4-6 hours prior to the application of the top coat. Do not thin this product with solvents.
- 4.8 **CAUTION:** Gas bubbles and pin holing may occur during the application of the primer/sealer. This is common on Marcite and other porous cementations pool surfaces that may retain moisture and air. This problem may be reduced by insuring that the surface has had sufficient time to dry and by applying the coating material during the coolest part of the day (early morning or late afternoon). If gas bubbles or pinholes appear, use nap roller with duct tape around the cage attached to an extension pole, and roll down the walls and floor in a continuous motion right after the initial application of **AquaGuard® Primer/Sealer**. This will avoid further air entrapment in to the **AquaGuard®** top coat.

Section 5 – Roll On Application of the AquaGuard® 5000 Top Coat

- 5.1 Prior to the application of the top coat, inspect the entire primed surface and check for any gas bubbles or pinholes. Repair as required with **AquaGuard®** Repair Kit Patch Material.
- 5.2 Keep the **AquaGuard® 5000** at a temperature of 80-90°F. Mix 5 gallon can of resin for 1.5 minutes with a drywall mixing paddle. Add 45 ozs. of Xylene Solvent to the resin or 18 ozs. If you split the unit (we recommend that you pre-mix the Xylene Solvent to the resin for 1.5 minutes). **NOTE: When mixing liquid products always mix counter clockwise to reduce air entrapment and splash out. AquaGuard® should be applied with 2 installers on smaller pools and 3 or more installers for larger pools or pools with spas for ease of application.**
- 5.3 The ideal application temperature of the mixed product should be maintained between 80-90°F to insure ease of application and a consistent finish. The top coat should not be applied at temperatures below 55°F. Thermometers can be purchased at Lowes or Home Depot in the Barbecue Section to check temperature of **AquaGuard®** products. Once product has been mixed, we recommend splitting **AquaGuard®** liquid into separate buckets for each installer. This will increase pot life considerably. **Do not use roller pans.**
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5.4 **AquaGuard®** top coat shall be applied to the entire surface in 2-3 coat process using a 3/8" X 9" Phenolic core nap and roller. Apply the initial base coat approximately 8-10 mils. Allow each coat to dry for a minimum 4-6 hours depending on ambient air temperature. Sand any runs or sags. Roll apply the finish coat to a thickness of approximately 8-10 mils and allow to dry for a minimum of 4-6 hours commencing any detail work or tape removal. Coverage for the top coat is approximately 650-750 Sq. Ft. per unit of product. Let dry for 24 hours prior to filling pool or spa. Using a sequestering agent when filling is always recommended. Check with your local pool store for this.

5.5 **PRECAUTION:** During the application of any high build epoxy, gas bubbles and pin holing may occur. This is particularly important when applying the finish coat. Steps outlined in **Section 4.8** of this document discusses procedures to help minimize this problem. Always attempt to apply the finish coat during the **coolest part of the day.**

5.6 **TOP COAT APPLICATION DATA (80°F)**

POT LIFE	30 Minutes
DRYING TIME	4-8 Hours
CURING TIME	24 Hours

5.7 If unfavorable weather conditions and other unforeseen factors cause a delay (greater than 24 hours) between the application of the Primer/Sealer and Topcoat, the entire surface will require additional preparation. If this occurs, lightly sand the primed surface and wash with MEK prior to the application of the topcoat.

5.8 Install a slip-resistant finish on final coat to all pool stairwells immediately after applying the epoxy topcoat to the stairwell steps. This is required for all commercial or co-operative swimming pools. Evenly apply a non-skid ultra-pure fine grain Silica or Sand additive to all entry points, or walk around gutters. We can also supply this product if needed.

Section 6 – Spray On Application of the AquaGuard® 5000 Top Coat

6.1 The top coat shall be applied with the outside temperature between 60-98°F. The top coat shall be heated to 90-95°F. by either indirect heater, or by leaving in the sun with clear plastic over the **AquaGuard®** units (check with thermometer).

- 6.2 Mix both the resin and activator for 1.5 minutes using an electric drywall paddle mixer. 18-24 ozs. of Xylene Solvent may be required due to airless spray pump equipment size and to insure proper spray pattern of the **AquaGuard®** coating.
- 6.3 Once the product has been properly mixed and the desired temperature has been obtained, place pail underneath spray pump.
- 6.4 Pot life for epoxy top coat is approximately 13 minutes at 90-95°F. With proper spray equipment sizing **AquaGuard®** coatings should be spray applied in 5-7 minutes per unit with a 535-635 tip.
- 6.5 Set the spray pump to 60-80 psi. With the trigger pulled, make sure the spray man slowly sprays the solvent in a 2 gallon pail until the top coat is seen (we recommend gas driven sprayers).

****Slowly increase pump pressure until it reaches 95-100 psi****

- 6.6 Hold the spray gun approximately 3-3.5 feet from surface to be sprayed, never any farther than 3.5 feet or bubbling may occur. Spray the entire surface area to a thickness of approximately 40-60 mils. Coverage of the top coat is approximately 125 sq. ft. per unit of product. It may be necessary to chalk box areas for pre-determined amount to be sprayed to achieve an even spray and mileage.
- 6.7 If unfavorable weather and other unforeseen factors cause a delay (greater than 24 hours) between the application of the primer and top coat, the entire surface will require additional preparation. If this occurs, lightly sand the primed surface and wash with MEK Solvent prior to the application of the top coat.
- 6.8 Install a slip-resistant finish on final coat to all pool stairwells immediately after applying the epoxy top coat to the stairwell steps. This is required for all commercial and cooperative swimming pools. Evenly disperse a non-skid ultra-pure fine grain silica or sand additive across the step surfaces to achieve the desire slip-resistant texture.

Section 7 – Final Inspection

- 7.1 Remove all taping materials and protective coverings. Use caution when removing the taped area on the bottom of the water line tile. To achieve a straight line around the tile line, first bend the tape downward then peel upwards. A razor knife may be used to trim any excess coating material.
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- 7.2 Visually inspect the entire coated surface. Check for any discontinuities, pinholes or other defects. Repair as required.
- 7.3 Allow a minimum of 24 hours at 75°F for the complete curing of the **AquaGuard**® surface prior to filling the pool. A sequestering agent should be used after the pool is full.

Section 8 – Disclaimers and Limitations

- 8.1 The information and recommendations contained in this document of procedures are to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, *Aquatic Technologies Group, LLC* makes no guarantee or results, and assumes no liability for damages incurred by the use of our product.
 - 8.2 The Applicator assumes all responsibility for proper safety procedures, surface preparation and application of **AquaGuard**® epoxy lining. The applicator shall indemnify and hold *Aquatic Technologies Group, LLC* harmless from any claim, action, damages, liability asserted by any third party against *Aquatic Technologies Group, LLC* because of any *Aquatic Technologies Group, LLC* product used by the Applicator, and Applicator shall maintain coverage sufficient to hold *Aquatic Technologies Group, LLC* harmless under this indemnity.
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INTRODUCTION TO STEEL POOLS

It is important to understand Steel or Carbon Steel Swimming Pools. They are typically placed in high rise apartments, condominiums and hotels. They are usually suspended between floors with their pool equipment rooms below them, the plumbing is hung from the ceiling and connected to the pumps, filters and Heating Equipment in place. It is to be understood that many coatings installed will delaminate quickly and turn green and black. This is due to improper pool grounding and no cathodic protection (Sacrificial Anodes). Note that typically in the average High Rise Pool there are 2-8 Pool Lights which comprise of a stainless steel light niche with an outside brass adapter ring attached to the light fixture or a chrome plated light ring with either stainless steel or brass screws. Thus creating dissimilar metals to include the Carbon Steel pool.

After examining dozens of these pools in many cities nationwide nearly 60% didn't have a No#8 Solid Copper Ground wire attached in the rear of the light niche for a proper ground. It is important to rectify these problems prior or during the application of the New AquaGuard Plus Pool Coating ([SEE Cathodic Protection](#)).

AQUAGUARD® 5000 PLUS

APPLICATION RECOMMENDATIONS

FOR STEEL SWIMMING POOLS, SPAS & FOUNTAINS

Section 1 – Introduction

- 1.2 This document has been prepared to establish acceptable practices and guidelines for application of **AquaGuard®** epoxy coating products on swimming pool & spa surfaces. These recommendations are intended, to assure that the restoration of the swimming pool or spa surface will meet the manufacturer's criteria for the proper application of **AquaGuard®**.

The procedures outlined in these recommendations apply to all Steel swimming pools, spas and fountains. Most High Rises have Carbon Steel Swimming Pools & Spa's due to weight and ease of building on upper floors.

Section 2 – Preliminary Preparation

- 2.1 All pools should be drained away from the pool itself, not in the immediate area. Utilize storm drains when available, no less than one hundred feet away from pool.
- 2.2 If necessary, groundwater should be stabilized by removing the hydrostatic plug at the bottom of the drain. It may also be necessary to install an overhead well point if groundwater is higher than 24 inches above the pool bottom. You may consult a pool professional.
- 2.3 Remove or cover any hardware, hardware accessories, plates, machined surfaces, light fixtures, or other similar equipment to avoid contact with the **AquaGuard®** epoxy material. Apply 1-2 rows of Red Duct Tape to waterline tile – this is a 14 day tape and may be purchased at Home Depot or Sherwin Williams, or similar no residue duct tape.
- 2.5 Installing Waterline Tile to a Steel Pool or Spa - Level Waterline with a 3/8" clear 50' Tube or Laser. Mark Pool every 6" with a Pencil. You will need Fast Set silicone (from Aquatic Technologies) and Power Grab (Home Depot). Apply 3 rows Fast Set and 2 rows Power Grab every 3-4 ft. Apply tile immediately and let dry 24 hours. Grout Tile with Acid Resistant Grout, let dry overnight. Next Day tape tile completely with Red Duct Tape. Apply **AquaGuard®** Trowel Patch to top and bottom of Pool tile, this will secure the tile from water intrusion or lifting off. Let dry 6-12 hours to set then sand if necessary. Now begin **AquaGuard® 5000** coating Application. Note: Tile & Adhesive available from www.poolbright.net
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Section 3 – Surface Preparation

- 3.1 Surface preparation is the most important step in the application of **AquaGuard®** Coating. Improper surface preparation is responsible for most of the problems associated with dis-bonding or delamination of a coating material on steel surfaces. As much care as possible must be taken to insure good surface preparation. SEE [Cathodic Protection](#)
- 3.2 Before applying **AquaGuard®**, the entire surface must be thoroughly cleaned using a high pressure cleaner to remove any loose paint, dirt, grease, oil, or Fiberglass Coating. Steel surfaces should be abrasive blasted or surfaces should be profiled by using an orbital sander with 60 grit sanding paper. After the above steps have been completed, **THE ENTIRE POOL MUST BE THOROUGHLY RINSED WITH WATER.**
- 3.3 Thoroughly inspect the surface area to determine the extent of any damage or degradation in the existing Steel surface. Check for rust, cracks and any other defects. Repairs should be made with new welded steel plates or **AquaGuard® Epoxy Trowel/Patch Kit**. Repairs must be thoroughly dried and cured prior to the application of the coating material. **All repairs to the surface should be sanded or ground smooth so that the repaired area does not show through the epoxy topcoat.**

The immediate areas under waterline tiles, around light fixtures, returns and drains should be sealed with an epoxy patch kit to help prevent leaking. The entire surface must be free of dirt, oil, prior to application of the coating material.

Section 4 – Application of AquaGuard® 5001 Primer/Sealer for Steel Pools Only

- 4.1 **All personnel should wear proper safety equipment and protective clothing during the handling, mixing and application of all AquaGuard® products. This includes protective eye wear, OSHA approved vapor masks and soil resistant gloves.**
 - 4.2 Thoroughly tape and cover areas that are not to be rolled with the coating material (tile, returns, pool light, etc.) to insure that these areas are adequately protected.
 - 4.3 **AquaGuard®** Primer/Sealer should be used at a temperature of 80-85°F, add one (1) gallon can of activator to the five (5) gallon can of resin. Mix 2.5 minutes with a Drywall mixing paddle. **NOTE: Always mix product counter clockwise to reduce air entrapment and splash out. Never dilute the primer units, and they may be split in half (pre-mix resin 5 gallon can first for 1.5 minutes for proper blending).**
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4.4 **PRIMER/SEALER APPLICATION DATA**

Working Time	45 Minutes
Pot Life	35 Minutes at 77°F
Curing Time	6-24 Hours depending on Geographic Area and Ambient Temperatures

- 4.5 Prior to application of the Primer/Sealer, inspect the entire pool surface to insure that the surface is clean and completely free of any dust, dirt, or any other superficial residues. An industrial grade vacuum may be used to clean the surface. Wipe all Steel pools and spas down with MEK, Acetone Solvent or Denatured Alcohol. This will help with a mechanical bond. NOTE: All **AquaGuard®** products should be installed with 2-3 installers per coat for ease of application or split unit in ½.
- 4.6 Roll one coat of **AquaGuard® 5001 Primer/Sealer** to the dry steel pool surface (pool must not be wet). Coverage for the Primer/Sealer is approximately 650-750 square feet per unit of product. Actual coverage will vary depending on the porosity and absorption rate of the surface.
- 4.7 Apply a single coat of **AquaGuard® 5001 Primer/Sealer** shall be applied to the entire surface with 3/8" X 9" Phenolic nap core roller. The Primer/Sealer must dry for a minimum of 4-6 hours prior to the application of the Fiberglass Matt. Do not thin this product with solvents. (It is recommended to mix ⅓ - ½ batches of Primer during this process). NOTE: Pre mix resin in advance for 1 ½ minutes before splitting units.
- 4.8 It is most important to begin coating the Steel Pool after rinsing immediately due to oxidation. Drying the Pool can be accelerated by using fans and indirect fired heaters.
- 4.9 It is recommended when applying 1.5 oz. fiberglass matt to a steel pool that all pieces are pre-cut before the application begins. Measure all wall to floor heights and cut each piece with a 3-4" overlap. Set up on deck around pool perimeter, pre fray all edges for ease of application.
- 4.10 Roll apply the Aquaguard Primer only to area ready to install the 1.5 oz fiberglass matt. Wet the surface, then apply the matt. Re-apply the AquaGuard 5001 Primer with a 9" X 3/8 Phenolic Nap Roller. Then use a 6-9" rib Roller to remove all air in the matt. Be sure the matt is completely soaked and lying flat. Install the second piece thus pushing each together and integrate the frayed edges to complete a good interlock pattern.
- 4.11 Once the walls are completed apply the 1.5 oz. fiberglass matt to the floor in the same fashion. Running the length of the pool is recommended in larger pools, do in sections as needed.
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- 4.12 Let Dry for 24 hours. Then Sand pool with 40-60 grit paper to remove any runs, or fiberglass edges. Apply AquaGuard 5000 Trowel/Patch mix to derogated areas, seams, etc. use as needed.

Section 5 – Roll On Application of the AquaGuard® 5000 Top Coat

- 5.1 Prior to the application of the top coat, inspect the entire primed surface and check for any gas bubbles or pinholes. Repair as required with **AquaGuard®** Repair Kit Patch Material.
- 5.2 Keep the **AquaGuard® 5000** at a temperature of 80-90°F. Mix 5 gallon can of resin for 1.5 minutes with a drywall mixing paddle. Add 45 ozs. of Xylene Solvent to the resin or 18 ozs. If you split the unit (we recommend that you pre-mix the Xylene Solvent to the resin for 1.5 minutes). **NOTE: When mixing liquid products always mix counter clockwise to reduce air entrapment and splash out. AquaGuard® should be applied with 2 installers on smaller pools and 3 or more installers for larger pools or pools with spas for ease of application.**
- 5.3 The ideal application temperature of the mixed product should be maintained between 80-90°F to insure ease of application and a consistent finish. The top coat should not be applied at temperatures below 55°F. Thermometers can be purchased at Lowes or Home Depot in the Barbecue Section to check temperature of **AquaGuard®** products. Once product has been mixed, we recommend splitting **AquaGuard®** liquid into separate buckets for each installer. This will increase pot life considerably. **Do not use roller pans.**
- 5.4 **AquaGuard®** top coat shall be applied to the entire surface in 2-3 coat process using a 3/8" X 9" Phenolic core nap and roller. Apply the initial base coat approximately 8-10 mils. Allow each coat to dry for a minimum 4-6 hours depending on ambient air temperature. Sand any runs or sags. Roll apply the finish coat to a thickness of approximately 8-10 mils and allow to dry for a minimum of 4-6 hours commencing any detail work or tape removal. Coverage for the top coat is approximately 650-750 Sq. Ft. per unit of product. Let dry for 24 hours prior to filling pool or spa. Using a sequestering agent when filling is always recommended. Check with your local pool store for this.

5.6 **TOP COAT APPLICATION DATA (80°F)**

POT LIFE	30 Minutes
DRYING TIME	4-8 Hours
CURING TIME	24 Hours

- 5.7 If unfavorable weather conditions and other unforeseen factors cause a delay (greater than 24 hours) between the application of the Primer/Sealer and Topcoat, the entire surface will require additional preparation. If this occurs, lightly sand the primed surface and wash with MEK prior to the application of the topcoat.
- 5.8 Install a slip-resistant finish on final coat to all pool stairwells immediately after applying the epoxy topcoat to the stairwell steps. This is required for all commercial or co-operative swimming pools. Evenly apply a non-skid ultra-pure fine grain Silica or Sand additive to all entry points, or walk around gutters. We can also supply this product if needed.

Section 6 – Spray On Application of the AquaGuard® 5000 Top Coat

- 6.1 The top coat shall be applied with the outside temperature between 60-98°F. The top coat shall be heated to 90-95°F. by either indirect heater, or by leaving in the sun with clear plastic over the **AquaGuard®** units (check with thermometer).
- 6.2 Mix both the resin and activator for 1.5 minutes using an electric drywall paddle mixer. 18-24 ozs. of Xylene Solvent may be required due to airless spray pump equipment size and to insure proper spray pattern of the **AquaGuard®** coating.
- 6.3 Once the product has been properly mixed and the desired temperature has been obtained, place pail underneath spray pump.
- 6.4 Pot life for epoxy top coat is approximately 13 minutes at 90-95°F. With proper spray equipment sizing **AquaGuard®** coatings should be spray applied in 5-7 minutes per unit with a 535-635 tip.
- 6.5 Set the spray pump to 60-80 psi. With the trigger pulled, make sure the spray man slowly sprays the solvent in a 2 gallon pail until the top coat is seen (we recommend gas driven sprayers).

****Slowly increase pump pressure until it reaches 95-100 psi****

- 6.6 Hold the spray gun approximately 3-3.5 feet from surface to be sprayed, never any farther than 3.5 feet or bubbling may occur. Spray the entire surface area to a thickness of approximately 40-60 mils. Coverage of the top coat is approximately 125 sq. ft. per unit of product. It may be necessary to chalk box areas for pre-determined amount to be sprayed to achieve an even spray and mileage.
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- 6.7 If unfavorable weather and other unforeseen factors cause a delay (greater than 24 hours) between the application of the primer and top coat, the entire surface will require additional preparation. If this occurs, lightly sand the primed surface and wash with MEK Solvent prior to the application of the top coat.
- 6.8 Install a slip-resistant finish on final coat to all pool stairwells immediately after applying the epoxy top coat to the stairwell steps. This is required for all commercial and cooperative swimming pools. Evenly disperse a non-skid ultra-pure fine grain silica or sand additive across the step surfaces to achieve the desired slip-resistant texture.

Section 7 – Final Inspection

- 7.1 Remove all taping materials and protective coverings. Use caution when removing the taped area on the bottom of the water line tile. To achieve a straight line around the tile line, first bend the tape downward then peel upwards. A razor knife may be used to trim any excess coating material.
- 7.2 Visually inspect the entire coated surface. Check for any discontinuities, pinholes or other defects. Repair as required.
- 7.3 Allow a minimum of 24 hours at 75°F for the complete curing of the **AquaGuard®** surface prior to filling the pool. A sequestering agent should be used after the pool is full.

Section 8 – Disclaimers and Limitations

- 8.1 The information and recommendations contained in this document of procedures are to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, *Aquatic Technologies Group, LLC* makes no guarantee or results, and assumes no liability for damages incurred by the use of our product.
 - 8.2 The Applicator assumes all responsibility for proper safety procedures, surface preparation and application of **AquaGuard®** epoxy lining. The applicator shall indemnify and hold *Aquatic Technologies Group, LLC* harmless from any claim, action, damages, liability asserted by any third party against *Aquatic Technologies Group, LLC* because of any *Aquatic Technologies Group, LLC* product used by the Applicator, and Applicator shall maintain coverage sufficient to hold *Aquatic Technologies Group, LLC* harmless under this indemnity.
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CATHODIC PROTECTION

WHAT IT IS AND HOW IT WORKS

How does steel corrode in water?

To understand cathodic protection one must first understand the corrosion mechanism. For corrosion to occur, three conditions must be present.

1. Two dissimilar metals
2. An electrolyte (water with any type of salt or salts dissolved in it)
3. A metal (conducting) path between the dissimilar metals

The two dissimilar metals may be totally different alloys, such as steel and aluminum, but are more usually microscopic or macroscopic metallurgical differences on the surface of a single piece of steel.

How does Cathodic Protection stop Corrosion?

Cathodic protection prevents corrosion by converting all of the anodic (active) sites on the metal surface to cathodic (passive) sites by supplying electrical current (or free electrons) from an alternate source.

Usually this takes the form of galvanic anodes, which are more active than steel. This practice is also referred to as a sacrificial system, since the galvanic anodes sacrifice themselves to protect the structural steel or pipeline from corrosion.

Anodes are designed to corrode and protect other metal components in the pool. Greater surface area means more protection for pool components. There are two ways to protect a Carbon Steel Pool: 1) Attach sacrificial anodes to the outside of underbelly of the pool or 2) Install instrumented cathodic protection system.

Salt System Swimming Pools: Sanitation of swimming pools using chlorine generators has become the method of choice for the pool professional. The addition of salt to the pool water creates a more corrosive environment for metals in the pool. A number of variables affect the actual corrosion of metals in pools. PH, water temperature, total alkalinity, chlorine levels, salt concentration levels and improper metal bonding can all contribute to corrosion of metals in the swimming pool. It is essential to maintain proper water balance with respect to PH, chlorine, and total alkalinity. Proper monitoring of salt concentration levels is critical in controlling metal corrosion. Salt levels should never exceed the maximum concentrations recommended by the Salt System manufacturer. In addition, all metal components must be bonded according to accepted construction practices. Even with all these variables under control, metal corrosion in the salt pool is very likely. Additional methods of corrosion protection should be used to avoid problems.

What is a Sacrificial Anode? A sacrificial metal anode is used to protect critical metal components in a salt system swimming pool. The sacrificial anode is connected electrically (either through direct contact or by use of a wire) to the metal to be protected. In a salt system pool, for example, a pool heater core will normally tend to corrode as a result of being in contact with the pool water. If this heater core is connected to a properly designed sacrificial anode, the anode will tend to corrode and transfer electrons to the heater core. At the interface between the pool water and heater core these electrons will create a chemical reaction that protects the heater core. The heater core (cathode) attracts electrons produced by the corroding sacrificial anode. The electrons react at the surface of the heater core with elements in the water. This reaction protects the heater core at the expense of the **sacrificial anode**. This transfer of electrons from the **sacrificial anode** to the metal to be protected is referred to as **Cathodic Protection**. **To purchase sacrificial Anodes go to:**
www.farwestcorrosion.com or www.permacastonline.com

OSMOTIC BLISTERS IN FIBERGLASS POOLS

Osmosis quite simply is the physical process by which a liquid from a weaker medium is drawn through a semi-permeable membrane into a stronger liquid medium. This is a process called Hydrolysis, a general term given to the reaction of any material with water soluble corrosive products which in turn create the cavities or blisters. For example, organic compounds like polyester resin are the main constituent to GRP (Glass Reinforced Polyester) laminates, which created a phthalic acid. The water molecules are so tiny that they actually pass through the gel coat surface of the pool. When they are allowed to come in contact with cheaper polyester resins they create blisters and expand with heat or direct sunlight. The two fundamental causes of GRP blisters are:

- 1) Poor workmanship in manufacturing
- 2) Water getting into the laminate.

Cobalting or Black Dots are miniscule air holes that develop when the gel coat is applied. A second coat of the gel coat will negate the possibility of cobalt spots. There are a couple of methods of reducing the Black Cobalt Spots:

- 1) Cobalt Treat can be purchased at a local pool store, manufacturer: United Chemical/Bioguard
- 2) Citrus Acid (a weak organic acid) used to remove stains and cobalting

Which means that the manufacturer was using an inexpensive product, when in fact they should be using an epoxy resin such as AquaGuard®, a thick film that is 100% solids reinforced epoxy based polymer designed as a protective coating with great chemical resistance. This process is now being used in the Fiberglass Pool Industry.

The repairing of blisters in fiberglass pools and/or spas can be easily repaired with **AQUAGUARD PATCH KIT**.

FIBERGLASS RESIN SIDE EFFECTS

Epoxy resin systems are often used in construction as bonding or hardening agents for fiberglass and other construction materials. Side effects are typically associated with exposure to fiberglass resin products before they cure and harden.

Symptoms

Side effects from exposure generally include skin and respiratory symptoms. Skin irritation can result in itching, swelling, flaking, and allergies, according to UC Davis Engineering Design and Development Services. Irritation of the lungs can cause wheezing, coughing and asthma.

Side Effects

Fiberglass (Polyester) resins are known to cause contact dermatitis and burns in some people. A study of 130 workers using fiberglass coatings with uncured epoxy resin by the Department of Occupational and Environmental Health at the University of Ontario found that eight of the workers developed dermatitis on their hands and forearms, and some developed irritation on the head and neck. The study also showed that once fiberglass epoxy resin is heat-treated, it no longer causes dermatitis.

Additional Problems

Prolonged exposure can affect the nervous system and cause headaches, dizziness and nausea. In worse cases, there may be loss of consciousness. The symptoms can resemble those of alcohol poisoning.

Protective Clothing

Workers should be familiar with the material safety data sheet (MSDS) for the products they use. Typical protective clothing includes gloves and safety glasses, and sometimes booties and respirators, depending on how much product is mixed.

AQUAGUARD® 5000 15 POINT CHECK LIST

1. DRAIN POOL 100 FEET AWAY FROM POOL.
 2. CHECK GROUND TABLE FOR STATIC PRESSURE.
 3. INSTALL AUXILLARY PUMP TO REMOVE STATIC PRESSURE IF NECESSARY.
 4. ACID WASH POOL – NEUTRALIZE – PROFILE POOL FOR GOOD ADHESION.
 5. CHECK ENTIRE SURFACE FOR HOLLOW SPOTS – REMOVE ANY AND ALL SUCH AREAS. REPLACE WITH HIGH BOND MORTAR AND BONDING AGENTS.
 6. REMOVE ALL LIGHTS, DRAIN COVERS, RETURN OUTLET FITTINGS AND CHECK ALL GASKETS.
 7. PROTECT ALL TILE AND POOL HARDWARE WITH TAPE. PROTECT DECKING WITH VISQUEEN.
 8. ROLL **AQUAGUARD® 5001** EPOXY SEALER OVER ENTIRE SURFACE TO:
 - a. STRENGTHEN EXISTING CONCRETE SURFACE.
 - b. STOP AIR ESCAPING FROM CONCRETE.
 - c. DRYING TIME 4-6 HOURS OR MORE.
 9. REPAIR ALL HOLES OR DEGROGATED AREAS WITH **AQUAGUARD® 5000 REPAIR PUTTY**.
 10. HEAT TOP COAT 85-90°F. ROLL APPLY TWO-THREE COATS OF **AQUAGUARD® 5000** TOP COAT. **ALLOW 4-6 HOURS OR MORE BETWEEN COATS.**
 11. REMOVE ALL TAPE AND VISQUEEN, CLEAN POOL HARDWARE, RE-INSTALL AND ADJUST ALL FITTINGS.
 12. TOUCH-UP ANY NECESSARY AREAS TO ENSURE A SECURE JOB.
 13. ALLOW A MINIMUM OF 24 HOURS BEFORE FILLING POOL.
 14. FILL POOL AND ADJUST CHEMICALS.
 15. USE A SEQUESTERING AGENT UPON FILLING.
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POOL CARE RECOMMENDATION

Your new **AquaGuard** aquatic surfaces will require less maintenance and reduce the amount of chemicals necessary to properly balance your pool chemistry. since **AquaGuard** is impervious and cannot absorb chemicals, we recommend the following care instructions:

- A. When filling a pool a sequestering agent or carbon tanks should be used to suspend any mineral particles until the filtration system is in service.
- B. Check your pool chemistry and maintain the following levels:
 - Chlorine 1.5 - 2.0 ppm
 - Acidity 7.4 - 7.8 ph
 - Alkalinity 90 - 12- ppm
 - Calcium 250 - 350 ppm
 - Stabilizer 60 - 90 ppm

Precaution: Do not allow tri-chlor powder, tablets or stabilizers to settle directly on the surface. This may result in staining or discoloration of the **AquaGuard** surface.

It is important to run the filtration system for 24 to 36 hours for the first time after applying coating. Re-clean filter and add stabilizer thru skimmer slowly. this will help dissolve the powder quickly. Adjust all chemicals in first week of service. Pool cleaners can be reinstalled after 7 days.

should you have any questions or desire additional information regarding care instruction for your **AquaGuard** surface, please contact your **AquaGuard** Applicator or **Aquatic Technologies, Inc.**

AQUAGUARD® CERTIFICATION TEST

- 1.** When Draining a Pool Where should it be drained?
 - a) Within 25 ft. of the pools edge
 - b) To a pond or drainage ditch over 100' away
 - c) Your neighbor's yard
 - d) Your backyard
 - 2.** Should the Hydrostatic Plug be removed?
 - a) Before Draining the Pool
 - b) During Draining the Pool
 - c) Do not Remove ever
 - d) After Pool has been emptied
 - 3.** Where is the Hydrostatic Plug Located?
 - a) In the Pool Skimmer
 - b) In the Main Drain
 - c) By the Pool Equipment
 - d) By the Pool Return Outlet
 - 4.** What Do I do if there's water under the pool?
 - a) Install a stand pipe to Hydrostatic Hole with a hard cap
 - b) Hook Up accessory pump to Hydrostatic Hole
 - c) Do not attempt to touch it
 - d) Call the Fire Department
 - 5.** First Thing to do after draining a Concrete Pool?
 - a) See if the Pool Light works
 - b) Acid Wash the pool
 - c) Check for disbonding and loose plaster
 - d) Roll Primer/Sealer on the surface
 - 6.** What size undercut score line should be used under the Pool Tile & Returns?
 - a) 6" Cut
 - b) No Cut is necessary
 - c) ½– ¼ Beveled Edge
 - d) 1" 45° cut
 - 7.** Why is a score line necessary?
 - a) It makes the Pool Water look better
 - b) Creates a grip hold for children & Non Swimmers
 - c) Stop water intrusion behind the coating
 - d) Keeps algae from getting behind the tile
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8. Acid Washing of the Cement /Plaster Surface.
 - a) 50/50 Solution Muriatic Acid & Water
 - b) 25/75 Solution Sulfuric Acid & Water
 - c) Citric Acid at pure strength
 - d) All of the Above
 9. Filling Large Hollow Voids in Pool Plaster
 - a) Use Sand & Water mix only
 - b) Use a High Strength Mortar Mix
 - c) Use Fiberglass Resin
 - d) Just leave alone - **AquaGuard®** will fill it
 10. Fiberglass Blisters are caused by
 - a) To much chlorine
 - b) Not cleaning the pool filter often
 - c) Inexpensive polyester resin & water penetration
 - d) High Water Table
 11. What is inside Fiberglass Pool Blisters
 - a) Usually little pieces of gold
 - b) MEK Solvent
 - c) Unhardened polyester Resin
 - d) Typically water
 12. How to repair Blisters in Fiberglass Pools
 - a) Good Concrete Mortar
 - b) **AquaGuard®** Trowel Mix
 - c) Leave all Blisters alone
 - d) Repair with Fiberglass Repair Bondo
 13. When to use **AquaGuard®** Primer/Sealer
 - a) All Fiberglass Pools that show Matting
 - b) All Concrete & Plaster Pools
 - c) When installing **AquaGuard®** Plus Systems
 - d) All of the Above
 14. **AquaGuard®** 5001 Primer/Sealer should be thinned with
 - a) MEK Solvent
 - b) Acetone Solvent
 - c) Xylene Solvent
 - d) Never thin this product
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- 15.** Can **AquaGuard®** 5001 Primer be split in half?
- a) Pre-mix resin first then split
 - b) Never split unit in half
 - c) Only if you use MEK Solvent
 - d) Pre-Mix with Water before splitting
- 16.** **AquaGuard®** 5001 Primer/Sealer should be applied
- a) In the hottest part of the day
 - b) Early morning or late afternoon
 - c) After a Rain Storm
 - d) When the owner is not home
- 17.** Is **AquaGuard®** Accredited & Registered with the FDA
- a) No Pool Coating is FDA Approved
 - b) **AquaGuard®** is FDA Approved
 - c) There is no such approval
- 18.** Can **AquaGuard®**5001 Primer/Sealer be used on Steel Swimming/Spa Pools
- a) True
 - b) False
- 19.** **AquaGuard®** has great chemical resistance
- a) Pool Paints have little known chemical Resistance other than chlorine & Pool Acid
 - b) Only **AquaGuard®** has been tested for 21 different chemical resistances
 - c) All Pool Paints have great chemical resistance
- 20.** **AquaGuard®** has a surface bond of
- a) Has a chemical bond of 3000 psi
 - b) Between 500-1200 psi
 - c) 10,000 plus psi
 - d) No epoxy's have a chemical bond
- 21.** Does **AquaGuard®** offer warranties
- a) Yes – just verbal warranty
 - b) 6-8 year warranty
 - c) **AquaGuard®** offers a written 10-15 year warranty
 - d) 25 year written warranty
- 22.** Black Dots in Fiberglass finishes are
- a) Cobalting
 - b) Unsightly
 - c) Somewhat treatable
 - d) All of the Above
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- 23.** Are **AquaGuard®** Coatings VOC Compliant
- a) True
 - b) False
- 24.** Can **AquaGuard®** Coatings be rolled and spray applied
- a) True
 - b) False
- 25.** **AquaGuard®** Coating can lower Pool Chemicals by 40-60%
- a) True
 - b) False
- 26.** One Unit of **AquaGuard® 5000** covers approximately how many sq. ft.
- a) 1200-1500
 - b) 200-400
 - c) 650-800
 - d) 150-300
- 27.** Well Points in Fiberglass Pools are not very important
- a) True
 - b) False
- 28.** What type of Fitting should be installed in a Fiberglass Pool for Dewatering
- a) Vacuum Plug
 - b) 7" Main Drain
 - c) Standard FTA
 - d) SP1022
- 29.** The Best Mixing Paddle to mix **AquaGuard®** coatings
- a) Drywall mud paddle
 - b) A Big Stick
 - c) 1 Gal Electric Mixer
- 30.** Amount of Xylene necessary for **AquaGuard® 5000** roll on application
- a) 8-12 oz.
 - b) 40-45 oz.
 - c) 60-70 oz.
 - d) 100 plus oz.
- 31.** Amount of Xylene Necessary for **AquaGuard® 5000** spray application
- a) Not necessary
 - b) 60 oz.
 - c) 45 oz.
 - d) 18-24 oz.
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- 32.** What tape is recommended for detail work
- a) Duct Tape
 - b) Packaging Tape
 - c) Red Stucco Tape
 - d) Blue painters Tape
- 33.** Surface Prep is the most important Procedure
- a) True
 - b) False
- 34.** Should Loose Concrete or Delamination be repaired PRIOR to **AquaGuard®** application
- a) True
 - b) False
- 35.** It isn't necessary to acid wash concrete or plaster surfaces first
- a) True
 - b) False
- 36.** Muriatic Acid is a good degreaser
- a) True
 - b) False
- 37.** The Best concrete Degreaser is
- a) Dawn Dish Detergent
 - b) Hydrochloric Acid
 - c) TSP (Tri-Sodium Phosphate)
 - d) Hand Scrubbing
- 38.** What Grit Paper should you use to sand a Fiberglass Pool?
- a) 20 Grit
 - b) 60 Grit
 - c) 100 Grit
 - d) Not Necessary
- 39.** What type Sander should be used on Fiberglass Pools?
- a) 4" Grinder
 - b) 7" Grinder
 - c) Orbital Sander
 - d) By Hand Only
- 40.** Is it necessary to cover tile & Fittings before starting **AquaGuard®** application?
- a) True
 - b) False
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- 41.** The best tool for undercutting Tile & fittings is
- a) 7" Grinder
 - b) 4" Grinder
 - c) Not Necessary
 - d) Hammer & chisel
- 42.** When should waterline Tile be re- installed on a Concrete Pool
- a) Never
 - b) After **AquaGuard**® has been installed
 - c) Install first
 - d) Anytime you want
- 43.** Should tile be installed before **AquaGuard**® or has been installed on a Fiberglass Pool
- a) Before
 - b) After
 - c) Does not matter
- 44.** At 77°F **AquaGuard**® 5001 Primer/Sealer has a working time of
- a) 10 minutes
 - b) 45 minutes
 - c) 1.5 hrs.
 - d) Unlimited
- 45.** Cleaning of the Pool Surface won't help mechanical Bond
- a) True
 - b) False
- 46.** What type of Roller is recommended for **AquaGuard**® application
- a) 9" X 3/8" Phenolic Nap
 - b) 4" roller Nap
 - c) 9" Latex Nap
 - d) 1/2" X 9" any type Nap
- 47.** Gas Bubbles in the Primer Coat can't be avoided
- a) True
 - b) False
- 48.** How do you get rid of gassing in Primer Coat on Concrete/Plaster Surfaces?
- a) Call a Plumber
 - b) Roll **AquaGuard**® over them on next coat
 - c) Back roll with 9" Roller cage only
 - d) Can't be helped
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- 49. AquaGuard®** Coatings should be mixed at a temperature of
- a) 55°F
 - b) 75-80°
 - c) 80-90°
 - d) Doesn't really matter
- 50.** Epoxy Coatings should not be installed below 55°F
- a) True
 - b) False
- 51.** Epoxy Coatings should be mixed in a clockwise direction only
- a) True
 - b) False
- 52.** Maximum time between each roll coat
- a) 6 hours
 - b) 24 hours
 - c) 2-3 days
 - d) Unlimited time
- 53.** Mosaics can be added to a Concrete or fiberglass pool
- a) True
 - b) False
- 54. AquaGuard®** Coatings can be applied to a wet surface
- a) True
 - b) False
- 55. AquaGuard®** 5000 is the only Pool Coating that can be sprayed applied to 60 mil
- a) True
 - b) False
- 56.** Pot Life of **AquaGuard®** at 90-95°F is
- a) 60 minutes
 - b) 13 minutes
 - c) 45 minutes
 - d) Approximately 1 ½ hours
- 57.** Type of Non-Skid for Stairwells
- a) Pulverized Granite
 - b) Mason Sand
 - c) Fine Grain Silica
 - d) Small Stones
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58. AquaGuard® Coatings should dry for how long before filling

- a) 7 days at 55°F
- b) 21 days
- c) Right away
- d) 24 hours at 75°F

59. Should a sequestering agent be used upon filling

- a) True
- b) False

60. Installation is warranted by

- a) The Homeowner
 - b) Manufacturer
 - c) Certified Installer
 - d) No one – Not Implied
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