Aquatic Consulting Services

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Pool Tip #35: Environmentally Friendly Pool Paints

Because of environmental concerns and stronger air quality control standards, the use of chlorinated rubber and solvent based epoxy paints are being phased out in some areas of the country. The newer water based epoxy paints have a shorter life expectancy, but are kinder to the environment, easier to work with and clean up, and less costly initially.

The paints are specially designed for pool use and can withstand constant submersion and contact with common pool chemicals. Epoxy paints can be applied indoors or outdoors over wood, metal, fiberglass, or concrete materials, and can be tinted to a desired shade or color using coloring agents.

In preparation for painting, drain the pool and inspect the entire surface of the empty vessel. Remove all loose material. Scrape or sand off any excessive calcium build-up. Make sure the pool is dry and you have taken all appropriate safety precautions if working with an electrical sander. Remember water and electricity do not mix well. Sandblasting or water blasting may also be necessary.

Wash the entire pool with 1 cup of granular TSP (tri sodium phosphate) per 1 gallon of water, to remove oils, scum and other organic matter which has built up over time. Scrub the pool walls with a stiff bristled brush, then scrub the pool bottom in a similar manner. Be careful not to slip. Rinse the pool with fresh water from a hose with a high pressure nozzle.

Next, acid etch the surface to roughen it so the paint will adhere. Wear protective clothing that covers all areas of exposed skin. Wear a full face shield and respirator with fresh acid cartridges, rubber boots and gloves. Make sure that the area is extremely well ventilated, that you are not working alone, and that both you and your partner are knowledgeable in first aid procedures for acid burns, and respiratory emergencies if one of you should be overcome by fumes. Mix a diluted solution of 1 part muriatic acid to 4 parts of water in a plastic sprinkling can. To avoid excessive fuming, remember to add the acid to the container of water, rather than adding water to the acid. Doing a small area of the pool at a time, pour the acid mixture from the deck down. Scrub until the surface feels like fine sand paper. Keep the rinse water on at all times. Neutralize the acid with soda ash (sodium carbonate) before disposal, and make sure you have a permit if you're disposing of the solution to a storm sewer. Keep the

sump pump running and reposition the pump frequently so you don't get a pump "footprint" on the pool bottom from the vibration of the pump.

After completing the acid wash, rinse the pool several times with fresh water. Reapply the TSP and water solution to the entire pool to remove and neutralize the acid.

Follow the manufacturers instructions when mixing the paint and blending colors. Do not start if weather conditions are threatening or outside temperatures do not coincide with the manufacturer's specifications for proper conditions for paint application. Mix enough paint at one time to cover the entire pool. Use a sturdy lambskin roller with an extension handle and with a 1/2 inch nap for an even coat and uniform color. Use a small paint brush to paint around the tile lines, trim, steps, in corners or hard to reach areas, and around lights, inlets, drains and other pool fixtures. Sprinkle silica sand or other commercially available slip resistant materials on the pool steps and other heavily used shallow areas of the pool to increase the friction coefficient. Try to finish painting in the shallow end of the pool so you don't accidentally paint yourself into a corner and get stuck in the pool.

A second coat of paint may be necessary. Water based epoxy paints dry rapidly, but you should wait 72 hours before applying the second coat of paint unless the manufacturer advises otherwise. Some manufacturers recommend that the pool be filled with water the same days it's been painted while others suggest waiting 3 or 4 days before filling to allow the paint to dry completely.