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Pool & Deck Coatings

Bulletin 904

Fundamentals for the Application of Epoxy Coatings

ALL OF THE FUNDAMENTALS SHOULD BE FOLLOWED

1. Avoid, at all times, careless and haphazard application procedures.
2. Remove all catalyst from the container and mix VERY THOROUGHLY into the base. We strongly recommend the use of an electric mixer for proper mixing of any two-component material.
3. When using DURA SEAL begin application immediately after mixing when temperature is 85°F (29.4°C) or above. Between 70°F and 85°F (21.1°C and 29.4°C), wait 15 minutes before application begins. In cooler weather, 50°F to 70°F (10°C and 21.1°C), wait 30 minutes before applying.
4. Painting should never start if there is water, moisture or dew on the surface. You can dry the surface with rags and start painting when surface is dry. Laying plastic on the surface will trap moisture and form condensation showing if surface is still damp. After several hours or days of hard rain the concrete will become saturated. Never apply paint to a saturated surface. Wait until the pool dries out and the dampness is no longer visible.
5. Avoid painting on windy days when dirt or dust may be deposited on the surface before it becomes tack-free.
6. Never repaint a pool unless the painted surface has been scrubbed with tri-sodium phosphate (TSP) and acid etched.
7. Never paint new unpainted concrete until it is thoroughly etched and cleaned with a muriatic acid solution. Following the acid etching, the surface should be neutralized with tri-sodium phosphate and hosed off under pressure.
8. If there is a cement base masonry paint on the concrete surface it should be removed before painting, as it is a very questionable base. Muriatic acid will usually remove cement paint. Refer to Smart Seal Bulletin #941 for acid etching. After removal of cement paint, coat surface as bare or new concrete.
9. Do not apply paint over primer or a previous coat of paint until it has cured tack-free. This can be ascertained by applying finger pressure on the surface.
10. Avoid the application of an additional coat when the existing coat has cured too long. If, for reasons beyond your control, the existing coat has cured too long, it will be necessary to scarify the surface with coarse sandpaper or the appropriate surface preparation tool. **PLEASE NOTE:** Do not apply too long between coats. Waiting too long before applying succeeding coats can result in peeling. When the existing coat cures too hard, it is not longer solvent sensitive. The solvent in the next coat will not "bite" into the previous coat. Consult the recoating schedule. A good test for the application of the second or third coat is to press your fingers on the coated surface. If it is still tacky, wait until the tack is gone before applying the succeeding coat or filling the pool. When succeeding coats are applied while the underlying coat is tacky, this underlying coat will soften and never fully harden. After the pool is filled, peeling could result within 3 days. Lines for racing lanes should be applied as soon as the paint cures to the point where it will take foot traffic without being tacky or marring the paint.
11. Never mix more than can be applied during the pot life period. Always store and mix in a cool place, as heat will diminish from the pot life period.
12. Our epoxy coatings are packaged at the ideal viscosity for application. For spraying, add up to one pint of #1109 Epoxy Solvent per gallon for DURA SEAL. An experienced spray operator will be able to judge spraying viscosity. In cooler weather, they need to be thinned in order to provide normal application properties. Avoid over-thinning as this will result in (a) reduced paint film thickness, which could result in earlier deterioration of the paint and unsatisfactory performance, and (b) sags and runs. If over-thinned, the viscosity can be raised to normal with the addition of unthinned but mixed paint of the same type. While different types of solvents can be used for clean up or for cleaning equipment, use only #1109 Epoxy Solvent for thinning an epoxy coating.
13. Never repaint pools that are scaling, peeling, or blistering. If only a few small spots are scaling, these spots can be sanded and primed and then the entire pool can be recoated; otherwise, complete paint removal is necessary.
14. While the solvent blend used in our epoxy coatings has a flash point above 100°F, it is always necessary to have adequate ventilation when painting indoor pools.

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15. Never try to skimp on primer. If the surface soaks up the primer, it should be reapplied until a uniform color is evident. Prime only bare or unpainted concrete. Primer is not required over previously painted surfaces.
16. **CAUTION!** Steps, shallow water and wading pools will become possible slipping hazards unless they are made slip resistant. This is done by very lightly sifting silica sand on the paint while it is wet.
17. In order to have consistent and satisfactory results from epoxy coatings, it is best to follow the information provided by the manufacturer. Short cuts and time savers could develop future problems. If the information provided herein is followed, problems will rarely exist.
18. Always use one-gallon containers of DURA SEAL on residential sized pools. Five-gallon containers may set up before all the material can be used. Five-gallon containers are for larger pools where the mixed DURA SEAL can be applied faster by spraying or by two or more applicators.
19. NEVER repaint rubber base paint with an epoxy!
20. When applying epoxy coatings over previously applied epoxy coatings, it is necessary to do several preparatory functions if a good bond is to be achieved. The old epoxy coating should not be recoated until it is so thin it is almost transparent. Each year the coating will erode slightly until it becomes thin and somewhat transparent in spots. It should then be scrubbed with tri-sodium phosphate (TSP). An acid wash will clean all chalky substances and stain from the surface. Hose off under pressure with clean water. After drying, the new epoxy may be applied. We suggest one coat of DURA SEAL. Bare spots should be spot primed with appropriate primer. If the pool is recoated while there is a remaining thickness of epoxy coating, and it has not completely lost all of its gloss or is still smooth (after TSP and acid cleaning), it should be sanded using coarse sandpaper. Sand in one direction (not circular) until many fine lines are cut over the entire surface.

NOTE: SMART SEAL makes no implied warranty of merchantability, no implied warranty of fitness for a particular purpose and no other warranty, either express or implied, concerning its products.

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