

KellleyTechnicalCoatings



Louisville, Kentucky 40201-3726 [502] 636-2561 [800] 458-2842 Fax [502] 635-5170 www.kelleytech.com

ALL OLYMPIC PRODUCTS ARE VOC COMPLIANT

Bulletin No. 104

Fundamentals for the Application of Epoxy Coatings

ALL OF THE FOLLOWING FUNDAMENTALS SHOULD BE FOLLOWED

- **1.** Avoid, at all times, careless and haphazard application procedure.
- **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 ZERON 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.** Coating should never start if there is water, moisture, or dew on the surface, you can dry the surface with rags and start coating 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 coating to a saturated surface. Wait until the pool drys out and the dampness is no longer visible.
- **5.** Avoid coating on windy days when dirt or dust may be deposited on the surface before it becomes tack free.
- **6.** Never recoat a pool unless the surface has been scrubbed with No. 910 POOL WASHING COMPOUND or tri-sodium phosphate and acid etched.
- **7.** Never coat new unfinished 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 finish on the concrete surface it should be removed before coating, as it is a very questionable base. Muriatic acid will usually remove cement coating. Consult our Bulletin No. 141 for acid etching. After removal, finish as bare or new concrete.
- **9**. Do not apply coating over primer or a previous application until it has cured and is 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. You can normally avoid waiting too long to recoat by consulting the curing schedule in Bulletin No. 105. Lines for racing lanes should be applied as soon as the coating 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 detract 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 No. 1109 EPOXY SOLVENT per gallon for ZERON and up to one pint per gallon for POXOLON 2. An experienced spray operator will be able to judge spraying viscosity. In cooler weather, they should be thinned in order to provide normal application properties. Avoid overthining as this will result in: (A) reduced coating film thickness, which could result in earlier deterioration of the coating and unsatisfactory performance, and (B) sags and runs. If overthinned, the viscosity can be raised to normal with the addition of unthinned but mixed coating of the same type. While different types of solvents can be used for clean-up or for cleaning equipment, use only No. 1109 EPOXY SOLVENT for thinning an epoxy coating.
- **13.** Never recoat pools which 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 coating 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.
- **15.** Never try to skimp on primer. If the surface soaks up the primer, it should be reapplied until a uniform color is evident. Only prime bare or uncoated concrete. Primer is not required over previously coated 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 coating 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 ZERON 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 ZERON can be applied faster by spraying or by two or more applicators.
- 19. NEVER recoat rubber-base coating 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. Then it should be scrubbed with No. 910 POOL WASHING COMPOUND or 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 ZERON or two coats of POXOLON 2. 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 and by sanding in one direction (not circular) until many fine lines are cut over the entire surface.

WARNING!

If you scrape or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead

Information herein given has been accumulated through many years of experience and verified by our technical personnel and is based upon tests believed to be reliable, but RESULTS ARE NOT GUARANTEED.

NOTE: KELLEY TECHNICAL COATINGS, INC. 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.

KELLEY TECHNICAL COATINGS, INC. Louisville, KY 40210