



POOL AND DECK COATINGS

Kelley Technical Coatings



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ALL OLYMPIC PRODUCTS ARE VOC COMPLIANT

Bulletin No. 115, pgs 1 & 2 of 3

POXOLON 2 and ZERON on Steel Surfaces

In finishing steel pools, the most important single factor which affects the performance of the coating is the surface preparation. It must be borne in mind that the life of the coating will be related to the extent of the surface preparation.

The epoxy coating is held on the metal by both its molecular attraction to the metal (called adhesion) and by a mechanical anchor which is developed on the metal by an abrasive, or a chemical etching. This latter method is called bonding. The performance of these two factors - adhesion and bonding - are dependent on the cleanliness of the surface as interference items (rust, mill scale, grease, residue) will prevent them from providing the proper anchorage of the coating to the metal.

SURFACE PREPARATION

Rust and mill scale are the greatest problems in preparing hot rolled steel for finishing. Blasting will produce the cleanest surfaces for finishing. Flame cleaning, while superior to wire brush cleaning, does not produce the excellent surface condition provided by blasting. The use of rotary power driven cleaning equipment is quite widespread. These power operated tools are equipped with various types of wire brushes, abrasive discs, and abrasive grinding wheels. These tools can be used advantageously when heavy deposits of weld flux, slag, and other brittle products must be removed. The weld seams in pools can be ground smooth with this type of equipment.

The most efficient method of surface preparation for steel pools is blast cleaning after the pool is welded together at the job site. Prior to blast cleaning, all weld flux, and weld seams should be removed with a grinding wheel. Blast cleaning will remove all mill scale, rust, and some of the base metal. The key to obtaining economical blast cleaning lies in the proper selection and must be reclaimed and recirculated until they wear out. They usually can be used 200 to 400 times before they are no longer effective. Where high losses of blasting abrasive are likely, sand should be used.

Pool sections are considered light weight plate and shot blasting is not always considered the best abrasive material. The shot could preen and hammer the surface and result in some scratching of the dimensions. Abrasive, softer than the metal they clean, are usually more desirable, as they can

remove material without changing the dimensions of the metal. Also, care must be exercised to secure the best anchorage pattern on the surface cleaned in order to receive the best possible results from the paint job. The maximum height of the profile received should not exceed 3.0 mils. Crushed iron grit with a particle size of G-50 should produce a surface offering an excellent anchor pattern.

After blast cleaning, the surface of the metal to be coated should be thoroughly degreased. One coat of No. 219 EPOXY PRIMER is then applied by brushing or rolling. Do not spray or roll the primer on the surface. The degreasing can be done by swabbing the surface with SC-100 or Xylol Solvent. Rubber gloves must be worn. This solvent should be swabbed or mopped on liberally and immediately dried off with clean rags.

After the surface is degreased, the steel is primed with No. 219 EPOXY PRIMER. The pool should then be primed with 2 coats of No. 219 EPOXY PRIMER. The first coat should be applied the same day the pool is blasted and degreased. The second coat of primer should be applied according to the schedule on page 3 of this bulletin.

APPLICATION OF POXOLON 2 AND ZERON COATING

Two coats of POXOLON 2 and two coats of primer are approximately 10 mils in thickness. ZERON is the same formula but in a much heavier consistency. Two coats of primer and one coat of ZERON are approximately 15 to 16 mils in thickness.

POXOLON 2 or ZERON MUST BE applied according to directions if you are to expect best results. Both have good adhesion over No. 219 METAL PRIMER. The best temperature for application is 80°F to 90°F. If there is dew, rain, or water on the surface, it must be dried off before either is applied. It is VERY IMPORTANT that all directions are carefully followed in their application. Two coats of POXOLON 2 may be applied according to the recoating schedule. If ZERON is used, one coat (12 to 14 mils) can be applied instead of POXOLON 2.

Thoroughly stir in the catalyst. All POXOLON 2, ZERON and No. 219 PRIMER containers are only 3/4 full to leave room for the catalyst. Catalyst for 5 gallon cans is under the lid. Catalyst for one gallon cans is in a separate container.

If practical, all steel pools should be sandblasted on the outside. One heavy coat of our No. 965 BITUREZ (Bitumen-Epoxy Coating) should be applied. This is applied on all bottom sections before welding. The bottom sections should have crushed limestones as an underlying base. BITUREZ insulates the steel from all soil or concrete. Dissimilar metals must be avoided in all pool components. If properly engineered, the steel pool can avoid failure of the coating film through galvanic (electrolysis) action. If a corrosion engineer can inspect your pool, he can advise whether or not a rectifier or sacrificial anodes must be installed to prevent galvanic action. This action will develop rust spots in 2 to 6 weeks even if the surface preparation and coating is not carefully done. See our Bulletin No. 162 *Galvanic Corrosion - Electrolysis Prevention - Remedial Measure*.

APPLICATION INFORMATION

All materials may be brushed, rolled or sprayed. If sprayed, airless spray may be used.

Mix the catalyst with the base. IMPORTANT! Be sure and remove all the catalyst from its container. Then MIX VERY THOROUGH. Wait according to induction schedule for the proper chemical reaction to take place before applying the mixed material.

Never apply POXOLON 2 or ZERON when the temperature is below 50°F. Below 50°F, they are static and do not cure or harden.

RACING LINES: POXOLON 2 in either Viking Blue or Black can be applied over POXOLON 2 or ZERON. If it is impossible due to rain or other conditions, then POXOLON 2 under the lines must be roughened with coarse sandpaper before the lines are applied. Masking tape should be used in order to produce straight lines. POXOLON 2 will not bond to POXOLON 2 or ZERON, or POXOLON 2 to primer, if you wait too long between coats. Apply the lines as soon as you can walk on the coated surface without marring or it feels tacky.

POXOLON 2 WILL COVER 300 sq. ft. per gallon on steel. Always apply 2 coats of POXOLON 2 or one heavy coat of ZERON.

For cleaning application equipment, use No. 1109 EPOXY SOLVENT. When using POXOLON 2 or ZERON pool coating, the application equipment should be cleaned with the No. 1109 SOLVENT immediately after using. Once it cures, it is almost impossible to remove the coating.

Avoid painting in the direct rays of the sun on real hot days. Paint on the shady side when the day is hot. Do not paint in the morning before the dew and condensation has had ample time to evaporate. Dry off the surface with rags or towels if dew or moisture is evident.

GENERAL INFORMATION

Two coats of POXOLON 2 and two coats of primer are approximately 10 mils in thickness. ZERON is the same formula but in a much heavier consistency. Two coats of primer and one coat of ZERON are approximately 15 to 16 mils in thickness.

CAUTION! Be certain to follow these directions. No. 219 EPOXY PRIMER, POXOLON 2 and ZERON are two-

part systems. After thoroughly stirring in the catalyst, wait according to induction schedule before beginning application of either product. DO NOT MIX more than can be used within the useable pot life period. Consult the pot life chart in this bulletin. If it takes 45 minutes to apply 5 gallons, you can mix a new 5 gallon container every 45 minutes. Be sure to time the mixing to allow for a 30 minute ageing period. It can be ageing while the previously mixed container is being applied. Clean all hose and equipment immediately after the completion of its use. Never let coating set up in the hose or pot, as it will be impossible to remove.

Wherever slippery conditions are a hazard (wading pools, steps, coping, shallow areas, etc.), it will be necessary to lightly sand these areas while the epoxy coating is tacky. Sift a white silica sand lightly over these parts. A new one gallon of coating can be used. Punch small holes in the bottom with a nail or punch. Move the can quickly over the areas to be sanded.

Consult the curing schedule on the following table regarding the curing time before filling the pool.

For cleaning all epoxy coatings application equipment, use No. 1109 SOLVENT.

PHYSICAL DATA

SOLVENT:

No. 1109 for POXOLON 2, ZERON and No. 219 EPOXY PRIMER

FLASH POINT: 105°F

No. 219 Epoxy Primer recoating time:

Approx. 4 hours @ 90°F

Approx. 6 hours @ 80°F

Approx. over night @ 72°F

Approx. 24 hours @ 60°F

ZERON AND POXOLON 2 CURING SCHEDULE BEFORE FILLING THE POOL:

Approx. 3 days @ 75°F and up (average temperature)

Approx. 4 days @ 70°F - 75°F (average temperature)

Approx. 5 days @ 65°F - 70°F (average temperature)

Approx. 6 days @ 60°F - 65°F (average temperature)

NOTE! A good test for recoating for filling is the finger press test. Press fingers with reasonable pressure on the coating. As long as it is slightly tacky, do not recoat or fill.

POT LIFE:

No. 219 EPOXY PRIMER, POXOLON 2 and ZERON:

No. 219 PRIMER:

Approx. 2 hours @ 95°F

Approx. 4 hours @ 75°F

Approx. 8 hours @ 60°F

ZERON: 1/2 hour @ 85°F or above - 1 hour @ 65°F to 85°F

NOTE! Above 85°F, use immediately after mixing thoroughly with catalyst. Do not mix 5 gallon containers unless you can use within 30 to 40 minutes. The smaller the quantity mixed at one time, the longer the pot life. ALWAYS STORE AND MIX IN A COOL PLACE.



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POXOLON 2 and ZERON recoating time:

Approx.: 4 hours @ 90°F - 95°F
Approx.: 6 hours @ 80°F - 85°F
Approx.: 8 hours @ 75°F - 80°F
Overnight: Below 75°F

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.

SQUARE FEET PER GALLON:

EPOXY PRIMER No. 219: 200 to 250
POXOLON 2: 225 to 250
ZERON: 125 to 150

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Louisville, KY 40210

NOTE: When coating large pools, do not mix more than 5 gallons in one item. If it takes 45 minutes to use 5 gallons, mix together 5 gallons every 45 minutes, etc.

CAN STABILITY:

POXOLON 2 and ZERON base up to 2 years; catalyst up to 2 years. No. 219 PRIMER base up to 2 years; catalyst up to 2 years. Solvents: Indefinitely.

CAUTION! - COMBUSTIBLE!

Keep away from heat and open flame. Avoid prolonged contact with skin and breathing of vapor. Close container after each use. Areas of body or clothing on contact with uncured resin and/or catalyst should be thoroughly cleaned with solvent and washed with soap and water immediately. Use only where there is adequate ventilation. KEEP OUT OF THE REACH OF CHILDREN.

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.