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# PREPARING SUBSTRATES FOR USE AS A ROLLER SKATING SURFACE USING SUPER BASE™ EPOXY PRIMER *CONCRETE & HIGH DENSITY PARTICLE BOARD*

## CONCRETE SUBSTRATES

### TESTING

To determine which preparation method to use, test several 2' x 2' sections in different areas of the floor. This will help determine which of the following cleaning or stripping systems is best for your floor. Use Muriatic Acid solutions for testing as described below in the **ETCHING** section of these instructions on page 3.

### GREASE AND OIL

Using strong detergent and abrasive stripping pads, scrub the surface with an automatic floor scrubber or rotary floor cleaner. Clean surface in small sections being certain to rinse and remove the dirty water before it has a chance to dry. A wet/dry vacuum cleaner should be used to remove rinse water from the surface.

### WAX

Remove all water-based wax or finish with an industrial strength wax strippers following manufacturer's instructions.

### SEALER OR CURING COMPOUNDS

For curing compounds and sealers that cannot be removed with water-based strippers, the following procedures may apply:

- Apply solvent-based stripper such as Multi-Clean Solvent Blend No.1 with a lamb's wool applicator, covering an area of 10' to 20' at a rate of 150 sq. ft. per gallon.
- Keep surface wet with this stripper and allow product to stand 15 to 20 minutes.
- Mix a powerful detergent such as Multi-Clean Butyl Plus 1 part detergent to 7 parts hot water.
- Flood the solvent treated area with detergent solution and scrub with a floor machine equipped with a poly-grit brush or black stripping pad.
- Pick up the residue with a wet/dry vacuum or automatic scrubber.
- Check area for spots and residue that may appear.
- With muriatic acid etching solution, test area as described above. If fizzing occurs, you have broken through the sealer or compound and may continue stripping the floor.

## VARNISH OR PAINT

- Remove all water based wax or finishes.
- Apply a Varnish Remover to a 10' x 20' area with a lamb's wool applicator. Let stand and work 15 minutes.
- Scrub stripper with a ploy grit brush or wire brush or Diamabrush®.
- Spread sawdust or oil absorbent material on the stripper solution.
- Sweep up the residue and dispose of properly.
- Scrub the floor with a powerful industrial strength detergent solution.
- Rinse with plenty of water.
- Test area with etching solution. Repeat stripping if little or no "fizzing" occurs.

## EPOXIES

If you suspect that epoxy paint has been used as a floor coating, contact your Roll-On and Super Base Supplier above. They will see to it that you are properly advised as to its removal. Talk to us about providing sample coatings for further testing.

## ETCHING

### **IMPORTANT NOTE**

All concrete surfaces must be properly and thoroughly etched with a **MURIATIC ACID** solution (often the label says, "30% Baume") or other concrete etching products before coating. Muriatic Acid is available in most hardware stores and is to clean swimming pools. Work with this product wearing rubber boots, rubber gloves and good protective eyewear. The common neutralizer for this product is white vinegar. Please consult labels on the product for proper protective measures and first-aid recommendations.

### MIXING

Mix 1 part muriatic acid to 6 parts water in a large PLASTIC container or garbage can. DO NOT use metal or galvanized containers for this process.

### TESTING

Apply a few drops of Muriatic acid or other etching solution to a few test areas throughout the surface. If the mixture "fizzes" the surface is clear of sealers or other coatings and the surface is ready to etch. The acid solutions should react the same in areas tested. If no "fizzing" occurs in one or more of the test areas, then a curing compound, sealer, varnish, or a wash coat is present and must be removed before the etching process can be started.

### ETCHING – BROOM FINISH CONCRETE

Acid-etch the cured slab until it feels like 80 grit sand paper. If the broom finish already has that feel to it, you need only acid-etch the slab once.

### ETCHING – SMOOTH FINISH CONCRETE

It may be necessary to etch smooth concrete two times to obtain a proper etch. A proper etch should have the feel of 80 grit sand paper. The first etch should be done with a mixture of 1 part Muriatic acid to 4 parts water. The second etch should use the standard Muriatic solution of 1 part Muriatic acid and 6 parts water.

## ETCHING PROCEDURES

Etch in 10' x 10' sections per gallon using a common plastic garden sprinkling can to apply and control the spread of the solution. Allow the solution to "fizz" for about 3-5 minutes. During this time, scrub with a floor scrubbing machine equipped with a wire brush or a stiff bristled parking lot push broom to work the solution into the concrete. Using a 5-gallon plastic paint pale, flood the 10' x 10' area with 4-5 gallons of clear water, also working this in for a minute or two with the parking lot broom or scrubber. Remove the water in the 10' x 10' area with a water vacuum and move on to the next section.

*Other methods used to profile concrete substrates to a 60 or 80 grit profile are acceptable. Diamabrush® 45 grit tools, Diamond Scarifier, Terrazzo grinders, and etc. do excellent work when controlled by practiced contractors. Feel free to have a contractor reach our service line with additional questions.*

## **TEST FOR ELIMINATION OF MOISTURE IN THE SLAB**

The etched slab must be thoroughly dry before proceeding often up to 36 hours after completing the etching process. Test for moisture by placing a few 6' X 6' plastic drop cloths (large plastic garbage can liners work well too) around the floor. Weight the corners of the plastic sheets down so they won't move with sudden air currents.

After 24 hours, lift a drop cloth. If the concrete is moist, the area under the plastic sheeting will be darker than the surrounding area. The surface is not ready for coating.

Return the drop cloth to its original position and test it again in a few hours. If the area under the drop cloth is dry, the surface is ready to coat. Once all test areas have dried, the skating surface is ready for coating.

Water Based Traction® Skate Floor Coatings system preparation, application and instructional videos are located at [www.roll-on.com](http://www.roll-on.com).

## **HIGH DENSITY\* Particle Board**

*This type of installation is recommended when 1 inch tongue and groove (T & G) HIGH DENSITY\* particle board is unavailable. It is an effective and proven substitute.*

### **\*DETERMINE PARTICLE BOARD DENSITY**

1. Measure the length, width and thickness in inches of the particle board sheet, using measuring tape.
2. For instance, if the board measures: 24 inches by 36 inches by 1/2 inch thick, divide each separate measurement by 12 to find dimensions 24" = 2 feet, 36" = 3 feet and 1/2" = 1/24 feet, which is 0.0416 feet.
3. Multiply all of the dimensions of the particle board sheet together to find the volume - in the example: 2 x 3 x 0.416 feet = 1/4 cubic feet = 0.25 cubic feet.
4. Set the particle board sheet on top of a scale to find the weight in pounds.
5. Divide the weight of the board in pounds by the volume of the board in feet to find the density in pounds per cubic foot. If the 0.25 cubic feet board weighed 8 pounds: 8.0 / .25 = 32 pounds/cubic foot.
6. Classify the board as **low density** between 25 and 37 pounds per cubic foot, **medium density** between 37 and 50, **high density** when greater than 50 pounds per cubic foot.

## INSTALLING HIGH DENSITY\* PARTICLE BOARD

1. Ideal leveling of concrete sub-straight is 1/4 inch deviation in 20 foot radius. Ardex manufactured fillers are acceptable. Grinding may be necessary. Shot Blasting or Bead Blasting may also be a solution in helping to level a slab.
2. A "roof" is installed on the concrete sub straight: Hot or cold tar is applied to the concrete surface. 15 lb felt roofing paper is installed and tacked together with mastic at over-laps.
3. Two Layers of 1/2 inch (1.27cm) HIGH DENSITY\* Particle Board are glued and screwed in place - the bottom course set 45 degrees to the length of the floor - the length of top course aligned with the length of the building. The layers are laminated by common wood glue (applied with rollers) and secured by pilot holes that guide flush mounted (pan head) 3/4" course thread screws ON ONE FOOT CENTERS (not counter sunk - heads are revealed and easily located). The screws "clamp" the glued sheets together and must be removed when the glue has set.
4. After removing screws, floor preparation begins. At this point care is taken not to contaminate the floor by tracked dirt and other substances. Liquids should not be carried onto floor or to its perimeter until all coats are completed. The particle board is sanded with 16 - 17 inch floor polishers with disc sanding attachments driving 60 grit -16" or 17" sanding discs which remove all contaminates, feather butt-joints if necessary and open the boards to receive the coatings of Super Base Epoxy, a product of Roll-on® Floor Systems.
5. Controlled cleaning is done by avoiding sending the dust into the air. Once the floor is carefully broom cleaned, a thorough vacuuming will pull dust from all joints and screw holes.
6. Super Base is applied by following manufacturer's instructions across five days.
7. Water Based Traction® Skate Coatings by Roll-on® will follow final application of the Super Base. A Roll-on® consultant can suggest choices in colors and other details. Water Based Traction® Skate Floor Coatings system preparation, application and instructional videos are located at [www.roll-on.com](http://www.roll-on.com).

This methods bulletin is to be used **only** by appropriately trained persons in conjunction with such training. IMPROPER USE OR OPERATION OF CHEMICALS OR EQUIPMENT POSES RISK OF PHYSICAL INJURY OR PROPERTY DAMAGE. Specific risks include, but are not limited to, burns, and improper application of chemical products (e.g. wrong product, wrong product combinations, improper applicator use, and improper curing.) Because successful and safe application is the responsibility and obligation of the trained applier, the manufacturer disclaims any and all warranties, express or implied, including warranties of MERCHANTABILITY or FITNESS OF PURPOSE. The manufacturer shall have no obligation except to replace repair, or pay for, in its sole discretion, any chemical product or equipment shown to be defective.

No person has authority to waive these disclaimers or make any representations or warranties on behalf of the manufacturer, except in writing signed by the manufacturer.

If you have not had training with the particular product or equipment discussed in these guidelines that you intend to use, please call: **Roll-on Floor Systems, LLC 817-571-2438** to discuss and arrange training.