

# Dura-Rubber Application Instructions Concrete

## Proper Preparation Prevents Poor Performance

### DURA-RUBBER – CONCRETE APPLICATIONS

**Preperation:** If going directly over concrete (No other coating on it) make sure the concrete is completely dry. If the concrete is damp to the touch it is not dry. (Use a fan to move the moisture out of the pond) Surface must be clean free of dirt and dust.

If going over other product such as epoxy it will need to be etched or roughed up with a grinder or sandpaper so Dura-Rubber can bond properly.

### **SURFACE PREPERATION:**

Concrete by nature is not only very porous product but also has a tendency to retain moisture for a long period of time. Although it may look dry on the surface there actually is a lot of moisture still inside. Moisture content depends on the relative humidity. Cure time will depend on water- cement ratio. A simple test takes an 18-inch by 18-inch clear plastic sheet and put it over the concrete and seal it on all four sides. After 16 hours, if any moisture or darkening of the concrete surface is found, the concrete is too wet for coating. Make sure the sheet does not come in contact with direct sunlight. You can also use a moisture meter. Keep in mind that moisture meters measure the top inch and concrete dries from the top down moisture levels need to be less than 7%.

Make sure when you apply, all your membrane terminations must be above the water line and dry.

Surfaces must be dry and free of anything that could adversely affect the adhesion of the Dura-Rubber to the surface. You should be sure to remove all loose, scaling, peeling, blistering, chipping, cracking, chalking or gravel, dust, dirt, sand, soot, grease, oil, uncured tar, wax, soap film, animal fats or petroleum-based residue, coal tar, chlorine, salts, efflorescence, or any other chemically reactive substance; and the surface to be coated must be completely free of all mold, mildew or any other living organism and COMPLETELY DRY.

High-pressure 2,500 P.S.I. should be used to thoroughly pressure clean all surfaces prior to application when any of the above conditions exist.

Mildew and similar growths need to be killed with 5% chlorine solution household bleach in water, followed by a thorough rinse with clean water. All surfaces must then be allowed to THOROUGHLY DRY before proceeding with application.

After all surfaces are thoroughly dry inspect for cracks, holes and any surface irregularities that will need to be repaired prior to Spray, or roller/brush Dura-Rubber. **We recommend doing a adhesion test before final application**

Product must be stirred, by hand slowly for 2-5 minutes, not shaken, or aggressively blended prior to use. **DO NOT THIN PRODUCT.**

Repairing Crack in Concrete or Other Mediums (up to 1/4 cracks or gaps) Repairs should be made with an application of followed by an embedded reinforcement fabric, fabric needs to be at least 4" in width, with 2" each direction from repair at all open joints, seams, cracks, holes, or areas of damage as well as at all penetrations, inside or outside corners and at any pan, or threshold that are determined by specification to be part of the waterproof envelope. Application on new wood, concrete, or ferrous metals should follow the same guidelines as repairs with all seams, joints, imperfections, or

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penetrations, inside or outside corners, pans, thresholds, or surfaces edges or transitions treated with a coat of , imbedded reinforcement cloth and a top-coat of prior to additional coats or final sprayed membrane. This preparation technique will add mil thickness and strength that is in addition to the additional coats or final top-coat - thickness determined by below Application Rate:

Application Rate:

Rates of Application are typically:

**Dura-Rubber 20 mils dry** for any concrete, this rate of about 40SF per gallon.

Remember you are not applying paint you are applying a liquid membrane

\* These mil thickness recommendations are based on proper application and preparation. Deep Drying / Curing times depend on temperature and relative humidity.

Drying Times:

**Drying times are typically:**

Prep coat:

Brushed or rolled will be ready to have cloth embedded while still wet and a top coat may be applied.

Dura-Rubber can be sprayed with an airless sprayer.

Make sure fabric is totally saturated with rubber and tight to the surface. This would apply to corners seams and patches. this must dry 4-8 hours depending on the size of crack filled, temperature and relative humidity

## Application Coat

Needs to "deep" dry between application coats. This means that because Dura-Rubber is water-based, all water must evaporate out of each application coat prior to the next application coat. Otherwise the rubber will develop small bubbles of fluid between the coats. If you have small bubbles appearing on your project, you need to wait longer between your application coats. Time to dry between applications coats is approximately 3-4 hours - depending on temperature and relative humidity.

"Curing" or "Vulcanization" Times

You will notice the product is dry to the touch with-in a few hours, and will be waterproof. However, the rubber is still going through a very important process called "Vulcanization" - this is the process where the rubber becomes one single membrane and can contain water on a continuous basis. The process of "Vulcanization" takes 7 days. You do not want to expose coating to chemicals or continuous water saturation until the vulcanization process is complete.

If you have a question about your specific applications please do not hesitate contacting us either via the phone, e-mail or our live online support chat. We are here to help!

## Optimal vs. Acceptable Humidity Levels

Optimal relative humidity (RH) levels for exterior applications tend to be in the 40-50% range or lower. Levels of 70% or greater will "drastically slow drying and curing," but again will not prevent you from applying.

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Applying above a RH level of 85% is strongly not recommended. Coating will remain gummy and gel-like until the RH lowers to an acceptable level long enough for it to solidify.

However, because the coating has not been allowed to "level" properly, the texture will remain wavy and otherwise unacceptable.

### **Temperatures Work With Humidity, Too**

One tip is to time your application so that temperatures are on the rise--several hours before the day's peak temperature, which is usually in the late afternoon. High humidity will slow dry time.

You need to build in a head-start by beginning hours before you think it is time to begin:

Even though the temperature was OK at the time of application, the coating can stop coalescing. This permits moisture to get into the uncured paint film allowing certain ingredients to come to the surface when the moisture evaporates, causing surface staining and possible adhesion problems.