



By Mark Montemayor
Published February 2014
All rights reserved
www.thecourtstore.com

THE PROPER CONCRETE FINISH FOR TENNIS COURT COATINGS

The proper surface texture of a new concrete slab is one of the most critical factors in determining the longevity of your acrylic tennis court surface. Every year we get dozens of calls from do-it-yourselfers ready to purchase tennis court paint for their new concrete slab. The first question we ask is: did your contractor finish your concrete with a broom, leaving some texture on the surface, or did he finish it smooth? Sadly, at least 80% of them report they have a smooth finish. This may be the right finish for warehouse floor, but it is precisely the wrong finish for a slab you plan to apply coatings of any kind, except maybe some type of liquid stain.

Without a good texture to grab onto, tennis court coatings will begin to blister and peel away very soon after they are applied. The surface will continue to be a maintenance nightmare until it wears away or you remove it. Make it very clear to your concrete contractor a light to medium broom finish must be present over the entire slab before he leaves. If he only provides this texture over 90% of the slab you may very well have problems with the 10% he missed.

Some of you are reading this after your slab has been poured and more than likely have a beautiful smooth finish. Don't worry, this can be corrected. It's just so much easier when the texture is created before the concrete dries. There are three methods for creating texture on a hardened concrete slab. The one we will discuss in details is aggressive acid etching, since it is the easiest and least expensive for the do-it-yourselfer.

Even if you have a nicely textured broom finish, acid etching should always be part of the preparation of concrete for sport coatings, or for that matter any paint. Normal acid etching burns a micro fine top layer of the concrete away, leaving fresh concrete free of silt and dust on which the coatings can be applied. The ratio of water to acid for this type of etching is typically 3 or 4 parts water to 1 part acid (phosphoric or muriatic). This process requires the etching solution be spread over the entire slab with a push broom and allowed to stand for 10 minutes, keeping the surface wet until rinsing thoroughly with a garden hose. After the acid/water solution has been rinsed away, it is a good practice to sprinkle baking soda over the wet surface spreading it around with a push broom before rinsing. This will neutralize any acid residue you may have missed. Acid residue will stain your finished coatings wherever it is present so you don't want to leave any behind. A typical tennis court slab will require 6 to 8 gallons of acid and 4 to 6 large boxes of baking soda.

Aggressive acid etching to achieve a textured surface is very similar with three very important variations. First, the water to acid ratio is 1 to 1. This will allow you to burn more of the surface away, creating a texture

(surface profile) as course as 40 grit sand-paper. The second variation is to let the acid solution stand on the court for 30 minutes as opposed to 10, keeping it wet by misting it as needed. The final variation is to pressure wash the entire surface, with a fan tip nozzle, after rinsing the acid residue away. A fine layer of sludge will be present in the pores of the surface after an aggressive etching. The only way to remove it, leaving the required texture, is to pressure wash it away. We still recommend neutralizing the surface with baking soda after pressure washing.

The other two methods for creating the proper surface texture are shot-blasting and surface grinding with scarifying diamond impregnated teeth. These pieces of equipment are fairly expensive to rent and often not available at many equipment rental stores. If you decide on either of these methods the same objective applies. You must achieve a surface profile at least as rough as 40 grit sand-paper for the tennis court coatings to adhere properly.

Once the proper texture has been achieved you are ready for our coating system which will include: EnvirBond Concrete Adhesion Promoter and a minimum of two coats of EnviroCoat Textured Tennis Court Color. Please call us if you have any questions: (404) 915-8352.