

## PATCHING ISSUES YOU MAY ENCOUNTER AND THE REPAIR TECHNIQUES AND PRODUCTS TO FIX THEM

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Whether you are planning to apply surface coatings over a new court or are resurfacing an existing one, chances are some patching will be needed. Patching is not difficult. You just have to use the right product for the specific repair and have the detailed instructions on how to use it. This article will cover the typical patching issues found on courts around the country and will tell you which of our products best addresses each issue. Detailed instructions and professional tips for any of the issues covered in this article are available upon request to all of our customers. Just drop us an email or send a note at checkout telling us which instructions you need. Since crack repair is addressed in another article we will cover every other type of patching in this one. If you are looking for crack repair information: '[click here](#)'.

### PATCHING ISSUES AND THE BEST PRODUCT(S) FOR THE REPAIR

- 1. STANDING WATER:** Standing water is one of the most common repair issues confronting many court repair and new court projects. Even the best laid asphalt and concrete will usually have a few puddles. The U.S.T.A. defines excessive standing water as an area that holds water deeper than 1/8" one hour after a heavy rain. If you drop a nickel in a puddle and water covers its top, you have a spot that needs to be filled. We carry three products for this type of patch: SuperPatch Binder, SuperPatch Kit and TruPatch. SuperPatch Kit is the easiest to use as everything is included. TruPatch is the next easiest to use. You only have to add a little portland cement to it. If you have a lot of patching you might consider using SuperPatch Binder and adding locally available sand and cement. One 5 gallon pail of SuperPatch Binder will yield 3 full 5 gallon pails of SuperPatch mix. SuperPatch Kit and TruPatch yield only 5 gallons of mix. To fill areas holding water, all three of these products should be applied with a straight-edge. Make sure to ask us for detailed instructions when you place your order. A few tips will make the difference between a small disaster and a stress free, professional repair.
- 2. HUMPS, BUMPS, DIPS AND RIDGES:** Often there are irregular areas on the court surface that don't hold water but may cause a bad ball bounce, or even worse, cause a player to trip. Any of the three products described above can be used for this type of repair. Usually a small straightedge, a squeegee or a trowel are appropriate application tools.
- 3. ROUGH SURFACE AREAS:** Areas rougher than the rest of the surface, whether on a new asphalt or concrete pad, or degraded areas on a previously surfaced court, should be filled prior to applying any coatings. It is best to use SuperPatch Binder mixed with sand and portland cement for this repair because you will have to make a looser slurry mix and squeegee it over the rough area. SuperPatch Binder allows you to adjust to a looser mix without adding water. Water can weaken the patch. The thickness of SuperPatch Kit and TruPatch is predetermined. You can add a little water to them but not much.

4. **MAJOR SETTLEMENT:** This problem is rare but I have encountered it on many courts over the years. Major settlement usually occurs because of inadequate compaction of the earth before the court pad was constructed, or due to decaying organic material buried beneath the surface. Most settlement caused by poorly compacted earth occurs near the edge of a court with a lower grade just outside the fence. Settlement caused by decaying matter can occur anywhere. It's just the luck of the draw where the trees, brush or building materials were buried. If you are dealing with a settlement issue there are only two repair options:
  - a. The permanent repair option would be to excavate the part of the court that is settling, remove the improperly compacted dirt and re-lay it in 6" lifts, compacting each lift before laying the next. After the dirt has been properly installed the excavated part of the court would be replaced. This is always an expensive repair and often cost prohibitive.
  - b. The other option is to treat the settling area as a maintenance item and bring it back up to grade with patching every 3 or 4 years. The initial patching might require asphalt or concrete if the settlement is deeper than three quarters of an inch, but could possibly be maintained with patching alone afterward. It just depends on how fast the area is settling. Once again SuperPatch Binder will be the best product to use, as it allows for mixing of larger sand for deeper patches and you are likely dealing with a pretty large area requiring a lot of patch mix. You can even mix SuperPatch Binder with fine aggregate. Don't attempt this repair without our detailed instructions. We will send them right out.
5. **PITTING:** Sometimes organic particles get into the mix at the asphalt plant. As the court ages these organic particles decay, leaving small voids in the surface we call pitting. If you have thousands of small void or pits, the easiest way to fill them is by applying one or two coats of EnviroFill Acrylic Resurfacer base coat. If you only have a handful of them or you have some larger than the diameter of a dime they can be filled with any of the patching products previously mentioned above or CrackLastic. CrackLastic is especially useful if you don't plan to re-color the entire court, since it comes pre-colored in all 10 of our standard court colors. The best tool for filling pitting is a putty knife or a drywall taping knife.
6. **IRON PYRITE:** The symptoms of iron pyrite are small rust colors spots and/or little bumps in the surface that look like a golf ball is trying to pop out. The patching procedure and products for this repair are the same as for pitting (above). Before you can patch though, you need to remove the Iron Pyrite which is usually a white or gray powdery substance just beneath the surface. The easiest way to remove it is to drill holes, using a 3/4" masonry bit, in the court directly over the pyrite symptoms. You should see the powder coming to the surface within 3/4". After you have bored out all of the spots, pressure wash or blow the holes clean and fill them with SuperPatch Kit or TruPatch. CrackLastic is not recommended for this repair.
7. **CONCRETE SPALLING OR OTHER SMALL DEEP REPAIRS:** The causes of small deep depressions and dings in courts are too numerous to list. Whatever the cause we frequently run into this repair issue. We carry a patching product specifically for them called DeepPatch. It sets up quickly and is paintable in 48 hours. DeepPatch is applied with a large taping knife or a trowel.

8. **DEGRADING NET POST AND FENCE POST FOUNDATIONS:** This issue can exhibit a range of symptoms including: cracking around the perimeter, old patches peeling away in large sheets or crumbling concrete. SuperPatch and TruPatch are the best patching products to use for all of these varied repairs. Tools used are typically, trowels, flexible knives and/or squeegees depending on the size of the area being repaired.
9. **ROOT INTRUSION:** Root intrusion manifest itself as you would imagine, creating long thin raised areas on the surface of the asphalt, sometimes causing a crack to develop in the middle. You should first sever the root outside the court and install a root barrier to deflect future intrusion. Once that has been done, remove as much of the hump, created by the root, as possible and then feather into the surrounding surface with SuperPatch or TruPatch. Don't forget to ask for a copy of our detailed instructions when order your patching products.
10. **GRASS INTRUSION:** We generally find grass intrusion in two forms: the single sprigs of nut grass and the strands of creeping grass with multiple root sources burrowing into the court. Single sprigs can be eliminated by tapping a Phillips-heads screw drive through the asphalt, into the base with a hammer, introducing a herbicide into the hole with a syringe, and patching the hole with any of the patching products mentioned in this article. If you have many root systems close together, scrape away the grass and spray the area with a water-based herbicide and squeegee a patch over the entire area. Test the herbicide on a small area of exposed asphalt to be sure it does not degrade it.

We have covered all the major patching issues typically encountered on court surfacing projects. We know our customers will run across others we have not covered. In those cases don't hesitate to give us a call. We have dedicated most of our lives to sport surface repair. It is highly unlikely you will be able to stump us. We are here to help you enjoy a stress free professional DIY court surfacing project.

## INSPECTION

Once your court surface has been thoroughly cleaned, take out a note pad and pencil and draw a large rectangle that represents your court or use one of our pre-made forms ([Single Court](#), [Two Courts](#)). Now, leave your drawing and drag your garden hose out to the court. Make sure you have enough hose to reach the entire court.

Flood the entire court, holding the hose nozzle upward at a 45-degree angle. Let the water cascade onto the surface like heavy rain, making sure to hold the stream of water in each area until it begins to run off. If you have the time you can wait for a heavy rain.

Whether you flood with the hose or wait for a good rain, your next step is to mark all of the imperfections that need repair. To do this you must outline these areas with a carpenter's crayon precisely 1 hour after flooding. You will notice that the remaining water will help highlight the areas needing patches or other work (i.e. grinding or sanding). Now, outline the puddles and other imperfections. Use any kind of shorthand that will help you recognize the problem areas when patching. You don't need to mark such things as cracks that will clearly be visible after the court has dried. Below are some typical markings used by the pros.

Now that you have finished the inspection and marked the court, it's a good idea to sketch the problem areas, and make notes describing them, on the court drawing you made prior to flooding. This diagram will help you determine exactly which (and how much) of our patching products will be needed for your project.

## PATCHING LOW AREAS AND OTHER IMPERFECTIONS

Using a tape measure, measure the width of each patch you have marked on the court and record the measurement on your diagram. These measurements will help you determine the length and number of straightedges you will need for patching.

Find the widest point of each patch, in the direction you plan to strike-off the patch, and add one foot to each of these measurements. In other words, if you have three patches measuring 3', 5', and 6' at their widest points, you will need three straightedges: a 4' straightedge, a 6' straightedge, and a 7' straightedge. Refer to the drawing below:

A straightedge can be made from almost anything, as long as it is very straight and rigid. Wood 2-by-4s, steel angle iron (1"), or aluminum rectangular tubing (2" x 4"), make excellent straightedges. All can be purchased at your local builders supply. Remember, whatever you use it must be perfectly straight.

Below is a list of other items you will need for patching low areas and other imperfections. Most can be purchased locally. The [applicator squeegee](#) is a specialty tool that can be purchased from us.

Flat Trowel	Masons Rubbing Stone with Handle
Tape Measure (at least 25')	Blower (hand, backpack or push)
5 Gallon Buckets (2)	Floor Scraper
1 Gallon Bucket	Flat Shovel
Putty Knife (3" wide)	Drill with Paint Mixing Paddle
Push Broom	36" Applicator Squeegee
Flower Watering Can (2 gallon)	Razor Knife
Garden Hose with Spray nozzle	Extension Cord
Silica Sand (30/60 mesh)	Portland Cement

It's now time to start patching. Open a five gallon bucket of [TruPatch](#). Pour whatever amount of [TruPatch](#) you think you can apply within 15 minutes into an appropriate size pail, add 1 part portland cement to every 4 parts of TruPatch and stir, (with mixing paddle attached to an electric drill) until the mixture is lump free. The patch mix should have the consistency of a thick milkshake. Warning: Never try to add more water as the mix begins to set. If it is too thick to use, dump it out and make a fresh batch. You may also use [SuperPatch Kit](#) interchangeably with any TruPatch application. The kit is similar to TruPatch but it includes all of the components: the latex, sand and portland cement. You will have to purchase portland cement for use in TruPatch.

Place the appropriate straightedge on the court about 1 foot in front of where you plan to start your patch. Pour the [TruPatch](#) or [SuperPatch](#) mixture in a pattern as wide as the patch at the edge of the straightedge. Preferably with a helper at the other end of the straightedge, pull the patch mix across the area to be patched. Add more patch mix as needed. If the patch is not fairly smooth, pull the straightedge back over the patch. Make sure the edges of your patch completely cover the area you marked. If the patch looks rough, lightly mist the surface of the patch with water, and pull the straightedge over the patch again.

Feather the edges of your patch using a square trowel hand squeegee. Try to blend the patch edges with the court surface. This is the secret to blending the patch into the court so that is invisible once the resurfacing is complete.

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After the patches have dried overnight, take a masons rubbing stone and rub any rough or high spots smooth. Blow off loose particles created by the stone.

It is always a good practice to flood the court again, after the patching is complete. Patch any areas which are still holding water.

Many professionals apply a coat of [EnviroFill Resurfacer or EnviroCoat Color Coating](#) over all of their patches prior to the application of the color over the entire court. This extra coat over the patches, called a “feather-coat” or “skim-coat”, helps hide the patching. I highly recommend you take the little bit of extra time and materials to apply this technique. It is truly one of the secrets of the trade.

After any patching or coating application you should always walk the entire court with your floor scraper, scraping up any drips or smears left on the surface. It is very important to scrape these areas well. Once you have finished this step, blow all of the scrapings and other debris off of the court before starting the next step. If your patches are real rough, [rent a floor sander from Home Depot](#) and smooth them out in hurry. The sander and paper will cost around \$50.00, well worth it when you consider the wear and tear on your back and knees when scraping and rubbing by hand.