



## Guardian 11" Crack Repair System Contractor Installation Guidelines

### Introduction

The following are general instructions for installing the Guardian® 11" Crack Repair Product. If you have any questions regarding how to install the Guardian® 11" Crack Repair Product, please contact your regional manager before proceeding.

Under proper conditions, a crew of three (3) laborers should be able to clean out, fill the cracks, apply the Guardian® laminate, bevel or feather the edges of the Guardian® laminate, secure the Guardian® Joint, Edge & End Fabric and apply one application of acrylic resurfacer or color to two-hundred-linear-feet (200 lf, 61m) per day.

The Guardian® 11" laminate is eleven-inches (11") wide by fifty-feet (50') long (27.5cm x 15.2m). We recommend applying the Guardian® 11" Crack Repair Product between two to five (2'-5') feet beyond the existing crack, in case that crack grows beyond its current profile.

Guardian® Crack Repair Product was designed to be installed over a properly cleaned, filled and repaired crack.

- For cracks smaller than ½" (1.3cm), we recommend standard crack repair and patching products, which combine a latex additive with portland cement and silica sand, such as California Court Patch Binder
- For cracks one-half an inch or wider (> ½", 1.3cm), we recommend mixing fine aggregate concrete and filling the crack. Do not fill flush to the surface- leave approximately 1/16" (4mm) crack filler. Once the concrete patch has cured, finish this material with a skim coat of Acrylic Crack Filler to level and smooth the crack.
- The material used to fill the cracks must be 100% cured and dry before proceeding with the installation of the Guardian®. It is suggested to allow the concrete and any tennis industry standard crack filling and patching products, each, to set for 24-hours prior to installing the Guardian® laminate. Also, it is suggested in the cooler months, periods of dew or after rains, to allow the cracks to fully dry after cleaning and prior to the beginning the crack filling procedures.
- Follow any and all specifications, recommendations, mix designs and directions as supplied by the crack filling and/or patching product and concrete manufacturer.
- Once all of the crack filling and preparation is completed, scrap and smooth the repaired areas to there are no ridge or rough spots. A commercial grade buffer or grinder can be utilized to ensure a smooth finish to the repaired crack, but ensure all dust is blown away. The court must be 100% dry prior to continuing with the installation process.

The Guardian® 11" is sold in kits based on One Hundred & Fifty Linear Feet (150-lf) quantities. A complete Guardian® 11" kit includes:



- 150-lf of the Guardian® 11" laminate, which are three eleven-inch (11") wide by fifty- feet (50) long.
- Ten-gallons (10-gals) of Guardian® Edge Adhesive
- Two-rolls (2) of Guardian® Edge Fabric

### Section One: Overview

Many cracks follow a fairly straight and consistent path, but occasionally the cracks bend or wind along at angles. If the crack is straight, simply install the Guardian® Crack Repair Product following that straight path, but if the cracks bend or curve, the Guardian® can be overlapped and double cut to create a butt-joint that will be seamed later.



### Section Two: Installation of the Guardian® Laminate.

- Step 1:** The Guardian® laminate sections for a crack can either be pre-cut for length, or they can be worked off the roll as you go. The Guardian® laminate is to be positioned so that the repaired crack is as close to centered beneath the Guardian® laminate as possible. If the crack begins to wander too much to the left or right, that section must be cut, and a new section begun, following the overlapping process described below.



**Step 2:** If you choose to unroll as you go, proceed to Step 3. If you are pre-cutting the Guardian<sup>®</sup> laminate, begin by unrolling the first section. Unroll the Guardian<sup>®</sup> laminate above the crack, fabric side up, the entire length needed. Cut the Guardian<sup>®</sup> laminate off the roll using a utility knife. If the entire roll is used, trim enough off the end of the roll to ensure that any exposed adhesive or core fragments are removed. Unroll the Guardian<sup>®</sup> laminate so that the crack is centered according to Step 1. You can choose to pre-cut your joints and direction changes now by simply allowing a few inches for overlapping of the Guardian<sup>®</sup> laminate where one roll ends and another roll begins, or overlapping a few inches where the direction of one panel changes from another so that the entire crack area is covered by the Guardian<sup>®</sup> laminate. Follow the instructions from section four directing how to pre-cut these butt joints. Do not remove the release liner until you are actually adhering that section to the repaired crack.

**Step 3:** Whether you choose to pre-cut the sections or unroll as you go, you are now ready to install the Guardian<sup>®</sup> laminate. Begin by peeling the first few inches of the release liner off the Guardian<sup>®</sup> laminate so that the first two inches of that section can be adhered to the court. Tuck the release liner beneath the Guardian<sup>®</sup> roll or pre-cut piece so that it can be pulled from beneath as you progress. Position this leading edge of the Guardian<sup>®</sup> laminate centered according to Step 1 and hand press this section flat onto the court pressing from the center out to both the left and right sides.



If you are adhering the Guardian® laminate as you go, off of the roll, have the first hold the roll up in the air and unroll only approximately five feet (1.5m). Have a second pull the release liner until it is to the roll. As the first slightly lowers the roll, the third then presses the Guardian® laminate onto the repaired crack, pressing from the center of the eleven-inch (11") wide Guardian® laminate out to the edges. Do not let the Guardian® laminate touch the repaired crack prior to being pressed down.

If the pre-cut sections are long, back roll the pre-cut sections starting from the end of the Guardian® laminate that will be adhered last and roll to the end that will be adhered first and follow the procedures described above.

If you are adhering the Guardian® laminate using small pre-cut sections, have the first hold up the pre-cut section about five feet from the third person who will be pressing the Guardian® laminate onto the repaired crack. Have the second person pull the release liner until it is to where the pre-cut section is being held up by the first man. Then follow the steps as described above.

The entire section must be rolled with either a heavy linoleum roller or hand roller to ensure 100% contact of the Guardian® Laminate with the existing court.

At places where one roll of laminate ends and the start of a second roll is required or where one pre-cut section ends and requires being joined with another pre-cut section, the sections to be joined require being butt-joined together, as tight as possible without leaving any gaps and without overlapping any Guardian® Crack Repair Product, trim as needed if this happens. When you come to a place where a joint is necessary, follow these next steps.

**Step 4:** If the repaired crack requires joining two sections of the Guardian® Laminate, begin the second section by overlapping a new piece of laminate three to four inches (3"-4", 7.5-10cm) over the preceding section where it has ended and has been adhered. If the crack has shifted to the left or right, the laminate should be overlapped at the appropriate angle to create a butt-joint so that the next section follows the repaired crack in the proper direction. Unroll several feet of the next section. At the overlap of the first section and the second section and cut down the overlap with a utility knife. This will give a clean butt-joint between the two sections centered over the repaired crack.

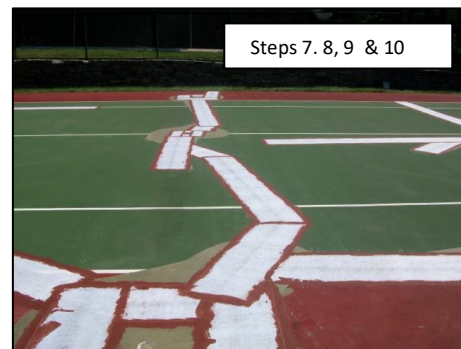
**Step 5:** Once the butt-joint is cut between the two sections, peel the of release liner from the second section of Guardian® Laminate, tuck the release liner beneath the section (as described in Step 3) so that it can be pulled from beneath the product. Position the leading edge of this section at the edge of the first section that is already placed and press it onto the existing court, keeping the butt-joint as tight as possible with no gaps between the two sections. Do not overlap any sections, trim as needed. Hand press the section flat onto the existing court, pressing from the center of the eleven-inch (11")



wide Guardian<sup>®</sup> Laminate out to the left and right edges.

### Section Three: Edge beveling or feathering and filling of the butt joints of the Guardian<sup>®</sup> Laminate.

- Step 7:** After the Guardian<sup>®</sup> Laminate has been installed, the edges need to be beveled or feathered and joints need to be filled. This is the step that minimizes the “thickness” of the Guardian<sup>®</sup> laminate and makes the repaired crack look uniform on the court. This step is completed utilizing California Court Patch Binder. The material used must be 100% cured and dry before proceeding with the next step. Follow any and all recommendations, mix designs and directions as supplied by the crack and patching product manufacturer in their specifications and installation paperwork. The product should be mixed to a consistency so that it can be squeegee applied, adding pure, undiluted acrylic resurfacer at a ratio of one gallon per five gallons of mixed material will help this material to flow and spread.
- Step 8:** Using a small putty knife, trowel all joints between sections of the laminate. Fill the joint completely, but keep the trowel area less than one-inch (1”, 2.5cm) wide. Smooth as you proceed.
- Step 9:** Next, bevel or feather the edges of the laminate. First, pour a bead just at the edge of the Guardian<sup>®</sup> laminate onto the asphalt or concrete base court. Next, using squeegee, pull the mixed material around the edge of the laminate filling the area. Create a three-inch (3”, 4.5cm) bevel or feather from the laminate down to the existing asphalt or concrete court. Smooth the spread material on the asphalt or concrete court as you proceed.
- Step 10:** This edge bevel material must be absolutely cured, 100% dry and hard prior to proceeding.





#### Section Four: Adhering the Guardian® Crack Repair Product Edge Fabric.

**Step 11:** Once the trowel material is 100% cured, and completely dry and hard, the Guardian® Edge Fabric is installed. These sections may be pre-cut for convenience. Prior to beginning, lightly scrape or sand the troweled joints and beveled or feathered edges to ensure that the cured material is flat and smooth. Clean any debris or dust prior to proceeding. Use either a roof brush or seal-coat edge brush with a five or six foot (5'- 6') handle for this Step.

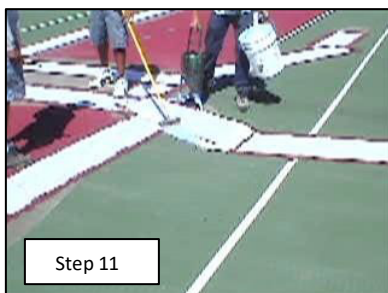
The Guardian® Edge Adhesive is used to adhere the Guardian® Edge Fabric and comes ready to use. Do not dilute.

For the joints, apply the adhesive approximately eight-inches (8", 20cm) wide, roughly four-inches (4", 10cm) on each side of the joint. For the ends, apply four-inches (4", 10cm) wide on the laminate and four-inches (4", 10cm) onto the base court. Brush only enough adhesive to ensure the adhesive is wet and does not begin drying before positioning the Edge Fabric. Install the Edge Fabric to the joints first, then the ends, then the length edges. The Guardian® Edge Fabric must always be positioned directly onto wet Guardian® Edge Adhesive.

**Step 12:** Next, place the Guardian® Edge Fabric into the wet adhesive. For the joints, place the fabric with the joint centered beneath the fabric. For the ends, position three inches (3", 7.5cm) of the Edge Fabric onto the laminate and three inches (3", 2.5cm) onto the existing base court.

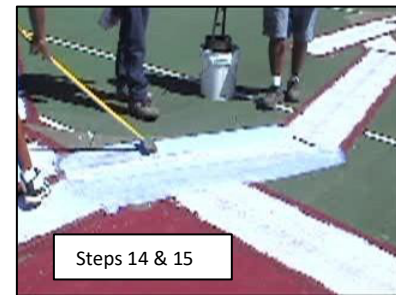
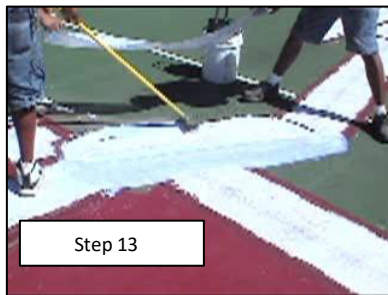
Using the roof or edge brush, press the Guardian® Edge Fabric into the wet adhesive down the entire length of the fabric. Make sure that there are no bubbles, wrinkles and that all of the edges of the Edge Fabric are flat.

Next, sprinkle additional adhesive on top of the Guardian® Joint, End & Edge Fabric and spread with the brush to ensure that the Guardian® Edge Fabric is 100% saturated with adhesive. Apply additional adhesive as necessary.





**Step 13:** To address the length edges of the laminate, the process is exactly the same as the joints and ends, but simply longer distances. Brush apply the adhesive approximately four-inches (4", 10cm) from the edge of the laminate toward the center of the laminate and four-inches (4", 10cm) from the edge of the Guardian<sup>®</sup> Laminate onto the existing court surface. Be sure to saturate the laminate and the existing court surface to ensure that the entire Edge Fabric will be positioned into wet adhesive. Any excess adhesive will be absorbed during Step 14 of this section.



**Step 14:** Next, place the Guardian<sup>®</sup> Fabric into the adhesive. For the edges, position three inches (3", 7.5cm) of the fabric onto the laminate and three inches (3", 7.5cm) onto the existing base court. The length of these sections should run four-inches (4", 10cm) past the ends of a section of the laminate.

Using a brush, press the Guardian<sup>®</sup> Fabric into the wet adhesive on the entire length of the adhesive that was applied in step 13. Make sure that there are no bubbles, wrinkles and that all of the edges of the Edge Fabric are flat.

Next, sprinkle additional adhesive on top of the Guardian<sup>®</sup> Edge Fabric and spread with the brush to ensure that the Guardian<sup>®</sup> Edge Fabric is 100% saturated with adhesive.

**Step 15:** Once the Guardian<sup>®</sup> Edge Fabric process has been completed for the section being worked on, spread the adhesive onto the center parts of the laminate between the two edges that does not already have adhesive. If there is excess adhesive from Step 14 it can be spread at this time. Any excess must be brushed evenly away or shaken into the bucket.



**Stage Five:**                      **Coating the Guardian<sup>®</sup> Crack Repair Product.**

Once the Guardian<sup>®</sup> Edge Fabric has cured 100% and is absolutely dry, the Guardian<sup>®</sup> can be coated with acrylic materials. It will take a minimum of 3-4 coats to fully embed the Guardian<sup>®</sup> repair. Apply additional coats until the edges are no longer visible.

Proceed with acrylic coating per manufacturer specifications, with one exception. On the first coat of Acrylic Resurfacer, only mix six-pounds (6-lbs) of silica sand per pure gallon of acrylic. This will aid in maintaining good flexibility of the acrylic material.

Proceed with subsequent applications per specification.



#### General Information:

Guardian<sup>®</sup> Crack Repair Products are manufactured and distributed by California Sports Surfaces, a division of the ICP Group, 150 Dascomb Road, Andover, MA 01810 USA, 987-623-9980 or [orders-sports@icpgroup.com](mailto:orders-sports@icpgroup.com).