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*TitanTrax Shield*

**TENNIS COURT INSTALLATION INSTRUCTIONS**

***General***

1. Verify weather conditions. Surface is not to be laid when rain is eminent. Surface must be seamed and sealed prior to rain.
2. Check surface area to determine planarity. All areas out of tolerance must be patched. The TitanTrax Shield is a lightweight overlay for structurally sound courts with good planarity.
3. Ensure site drains well.

# *SURFACE PREPARATION*

* 1. Stage materials delivered to site.
	2. Patch and clean court(s) of all dirt, dust and foreign debris.
	3. Fill all low areas on court(s) which hold water deeper than the depth of a nickel.
	4. Route all cracks clean of dirt dust and debris.
	5. Fill all cracks 3/4” wide and less with latex concrete patch mix, cement and sand.
	6. Fill all cracks wider than 3/4” with sand to bottom of pavement. Fill area with hydraulic cement mix to within 1/8th to 1/16th of an inch of top. Allow to cure and then top off flush with pavement with latex concrete patch mix. Sand smooth as necessary.

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# *INSTALLATION - STAGE 1*

* 1. Stage rolls of the Shield on pavement. The smooth shiny urethane side is the bottom of the roll which is laid onto the pavement. Starting from center, square rolls and work out to the edges. Rolls should be laid in the same direction as the slope of the court.
	2. Lay rolls out on court surface at a 90º angle to the net line, or parallel to the net line, and allow to relax.
	3. Place a chalk line down the side of the court, 4” from inside of fence.
	4. Unroll first roll. Chalk a straight line down the outside edge, 2” from edge (inside the salvage) and trim salvage from roll. Lay roll with the cut side on the chalk line at fence.
	5. Mark edge of roll 5.5 inches from uncut edge. Overlap the next roll over the edge to this mark so that the edge is on the mark. Ensure the roll is straight and taut.
	6. Lay out all rolls and overlap in this fashion

# *INSTALLATION - STAGE 2*

* 1. Glue the far end of the 12’ width edge, by applying a 1’ x 12’ strip of glue under the edge of the Shield. Set the end close to the fence line (within 6”) in glue. The Shield rolls should be set in the glue by rolling and then compressing the glue with 10’ x 1” X 4” on top of the Shield.
	2. Using a knee kicker, take out the slack on glued side while glue is setting up. This assists in ensuring the material is flat. Nail or screw a 10’ - 2 X 4 across the end of the Shield fabric adjacent to the glued edge close to the fence.
	3. Moving over to the other side of the court, outside the fence set up a stationary object to attach a come-along at the center of the first roll to be set. The come- along may be attached to an object such as:
		1. A piece of rebar driven into the ground about 5’;
		2. The trailer hitch of a truck;
		3. 12’ steel bar or pipe anchored to the fence.
		4. A full 55 gallon steel drum.
	4. Attach the tension bar (min 10’ long) to the loose end of the Shield fabric. The tension bar can be fabricated from wood or with metal so that the end can be fixed to a come-along

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* 1. Attach the come-along to the tension guage, stationary anchor and the tension bar and stretch Shield surface until taut, resulting in roughly 240 lbs of tension. All slack should be pulled out of the roll.
	2. Once roll is tensioned but while still on tension (or taut), place weight on roll (crew members). Slowly release come-along 3 clicks at a time, until you can remove any distortion on the roll. Have the crew push a 1” x 4”x 10’ board parallel to and inside, away from the come-along. Nail board into place.
	3. Release tension from the come-along.
	4. Apply 1408 adhesive under resulting flap, 1’ wide strip across entire panel 6” inside the fence or perimeter. Push a board over the flap from the board to the perimeter to pressure the flap into the adhesive and remove any slack.
	5. Nail another board into place at the end of the glued flap. Remove the first board.
	6. Repeat steps 1-11 on each panel until all panels are stretched and nailed.
	7. Pop a chalk line on the perimeter of the panels to cut off the Shield 4” from fence line.

#  *INSTALLATION- STAGE 3*

1. Using circular saw and special blade (DEWALT 200X, 4”, DRY/WET, DIAMOND BLADE), double cut seams in a straight line. Double Cutter may be used as well. Seams should loosely touch without being tight.
2. Clean dust from seams with a shop vac or vacuum.
3. Apply the 4” TTrax Seal tape on top of the seam, sticky side down, to attach seam together. Stretch and firmly press the tape on to the Shield joint to activate the adhesive. Seal all joints in the Shield panels.
4. Using a drill mixer, blend 18 gals of ACR Flexible Binder with 126-160 lbs of clean fill sand (60 mesh, round) and 8 (eight) gallons of H2O.
5. Apply one feather coat of sand filled ACR Binder over all of the seams.
6. Mix a 5:1 blend of ACR Binder and PolySeal. Employ the wet on wet seam process. Apply this adhesive blend to the seam with a 6” long knap roller. While adhesive blend is wet roll the 12” TTrax Glass tape into the wet adhesive and press down into place with roller. Immediately apply fresh adhesive onto the tape and roll smooth and flat. Blended mixture should carry over the edges of the tape. Perform this process on all seams.

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1. For multiple court banks move to the perimeter of the court on the side of the panels. At the 30’ mark between the net posts attach the come-along board and tension bar to slightly pull out any slack between the rolls. Nail a board 6” in. Apply adhesive to the edge only at the 30’ point approximately 2’ in lenth. Nail another board onto the glued edge. Continue onto the other side of the net post and then to other side of the courts until all 4 sections are set.
2. Using the same wet-on-wet application method as above, apply adhesive and TTrax Edge tape on outside trimmed edges of surface, 3” on the surface and 3” on the pavement edge. Do not puddle adhesive at edge. Allow to dry.
3. Prime entire surface with a fully mixed application of 1 part water and 1 part PolySeal (1:1). Application of approx .025 gal per sq yd by spray, squeegee or brush. Make sure the material is not puddled. Allow to cure (approx. 24 hours). High humidity may extend period for primer to cure. Generally a 24 hour cure time is recommended.
4. From time to time a small area of delamination (undetected during the manufacturing process) may occur . To remedy on site, measure the area and cut a piece for replacement from any scraps. Lay the replacement piece over the repair area and trace cut out the affected area. Drop the repair piece (should fit tightly into the opening) into the area and top seam as noted previously above.

# *INSTALLATION – STAGE 4*

* 1. Using a drill mixer, blend 18 gals of ACR Flexible Binder with 126-160 lbs of clean fill sand (60 mesh, round) and 8 (eight) gallons of H2O. Allow to dry.
	2. Squeegee coat all seams with ACR Flexible Binder mixed with sand. Do in multiple applications to feather and blend the seams.

3 Apply one coat of ACR Binder to entire surface as necessary to achieve even texture.

1. Using a mechanical floor sander lightly buff the seams so they are even with surrounding surface area.
2. Apply second coat of PB-ACR Binder to entire surface as necessary to achieve even texture and finish with approved color surface system

# *INSTALLATION - STAGE 5*

1. Using a drill mixer, blend 18 gals of Color with 108-140 lbs of clean fill sand (60 mesh, round) and 8 (eight) gallons of H2O. Allow to dry Apply two - three coats of color system as per mfgr recommendations.

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**INSTALLATION INSTRUCTIONS, cont’d**

1. Tape and stripe court(s) for play CAUTION(S):

DO NOT allow water infiltration into system prior to applying ACR

Binder.

DO NOT apply if rain is imminent or will occur before surface can be coated!

DO NOT install in temperatures under 50º Farenheit.

**We strongly recommend the use of flexible ACR Binder & flexible color materials for long term optimum results**.

Thank you for choosing the TitanTrax Shield !!

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