

# PLEXICUSHION INSTALLATION GUIDE

## DESCRIPTION

This specification covers the application of a new cushioned Plexicushion athletic surface on new or existing concrete courts that have a sound, well-drained base of adequate thickness and stability.

## ACCEPTABLE BASE SPECIFICATION

The success of the all-weather characteristics of resurfacing is dependent on a sound base (with good drainage) and asphalt or concrete meeting the requirements of American Sports Builders Association. Surface variation should not exceed 1/8 inch in ten feet when measured in any direction with a straightedge and a slope of 1 inch in 10 feet, all in one plane. Surfaces should be properly sloped for good drainage, and free from cracks.

**New Concrete-** CSS requires a minimum cure time of 28 days on new concrete. Concrete must have vapor barrier installed below the slab to prevent moisture transmission. Concrete should have a medium-broom finish to allow for proper adhesion. Absolutely no concrete curing compounds may be used. Lightweight concrete is not an acceptable substrate. If water-proofing products are installed on the concrete, the supplier needs to guarantee that their system is compatible with acrylic coatings.

#### CONCRETE PREPARATION

New concrete must be acid-etched with either phosphoric, muriatic acid and must be thoroughly rinsed to remove laitance and salt and to reduce alkalinity. California Concrete Preparer is a self-neutralizing alternative.

California Ti-Coat Epoxy should be installed as an adhesion promoter prior to the Acrylic Resurfacer.

Ti-Coat Part 'A'	Ti-Coat Part 'B'	
Equal parts	Equal parts	
Let mix stand for 20 minutes prior to application.		
Coverage rate is approximately 300-400 square feet per gallon (28-37 m²/gal)per coat, depending on the porosity		
of the surface.		

Use a short nap phenolic core roller. Apply a thin, wet coat. Be careful to remove any fat spots. Use all mixed material within 4 hours.

Ti-Coat will dry within three hours of the application. Acrylic Resurfacer applied within one to three hours of the application of Ti-Coat, while still tacky to the fingertip touch will provide maximum adhesion. Ti-Coat will dry faster on a hot day and slower on a cool day, but in all cases Acrylic Resurfacer must be applied the same day.

**Existing Courts-** Should be free of dirt, debris and any blistering or delamination of the existing coatings. Surface should be cleaned and pressure-washed to remove any loose coatings or contaminants. Any depressions or low spots should be repaired to bring the court to proper uniformity. Surface should be free from cracks.

# WEATHER LIMITATIONS

No part of the installation shall be conducted during rainfall, or when rainfall is imminent. The air and surface temperature must be a minimum of  $50^{\circ}F$  ( $10^{\circ}C$ ) and rising. Do not apply when surface temperature is above  $140^{\circ}F$  ( $60^{\circ}C$ ).

**COURT PATCHING** - The surface to be coated must be sound, smooth, and free from dust, dirt or oily materials. Prior to the application of surfacing materials, the entire surface should be flooded and left in direct sunlight for one hour under ideal conditions and checked for minor depressions or irregularities. Any puddled area that exceeds 1/8 inch in depth shall be marked and repaired with Court Patch Binder using the following mix:

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100 lbs. (45kg) of 60-80 mesh silica sand (dry)

3 gallons (10L) Court Patch Binder

12-24 lbs. (5.5-11 kg) dry Portland Cement (depending on humidity and temperature)

Tack coat consisting of 1-part Court Patch Binder and 2 parts water shall be applied to the patch areas and allowed to dry thoroughly prior to patching. After patching, the surface shall not vary more than 1/8 inch in ten feet measured in any direction. Edges of the patch should be sanded down, as necessary, to avoid ridges.

#### CRACK FILLING

California Crack Filler may be applied by hand trowel or small broad knife to force crack filler into cracks. Do not dilute. Cracks need to be cleaned and free of moisture. Will not prevent the reappearance of cracks in the substrate.

## ACRYLIC RESURFACER

In order to provide a uniform, textured surface for the Plexipave system, Acrylic Resurfacer shall be applied to obtain a coverage rate of .05-.07 gallons per square yard (.16-.22 liters per square meter) per coat, prior to any dilution. On new or rough asphalt, a second coat may be necessary. No application shall be covered by a succeeding application until thoroughly cured. Dilution with water and sand is required utilizing the following mix ratio:

Acrylic	Sand	Mix	Clean, potable	Mix
Resurfacer	40-60 mesh		Water	
18 gallons	225-250	5 minutes or	8-12 gals	5 mins or until uniform
_		until uniform	_	
Mix should not sit more than 20 minutes prior to application.				
Cure time is approximately 2-4 hours under ideal conditions.				
Liquid Yield 37-46 gallons (141-177L)				

#### Application methods:

- Use a 50-70 durometer rubber squeegee to level material across the court.
- After initial pour, acrylics should not be poured onto dry surface. Pour additional materials into existing wet windrow.
- Care should be taken not to leave ridges where adjoining applications overlap.
- Under hot conditions, application is improved by keeping surface damp with a fine mist water spray. Do not allow water to puddle.

# PLEXICUSHION BASE COAT

After the Acrylic Resurfacer application has thoroughly dried, application of the Plexicushion Base Coat may begin. No application shall be covered by a succeeding application until thoroughly cured.

Plexicushion Base Coat shall be applied in applications at an average rate of 0.22 gallons per square yard (.69 liters per square meter) per coat.

Plexicushion Base Coat shall be applied with a 50-durometer rubber squeegee. Plexicushion Base Coat must be thoroughly mixed prior to application, using the following mix ratio:

Plexicushion Base Coat	Clean, potable water	
4 parts	1 part	
Mix should not sit more than 10 minutes prior to application. Continuous mixing is recommended.		
Subsequent coats should not be applied until the previous coat is fully cured. Full cure could take up to 24 hours.		

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When applying, maintain a narrow windrow of material on the surface. Constantly re-wet the windrow with small amounts of fresh material. If material becomes heavy, remove from the surface and intermix with fresh material.

Extreme care should be taken that ridges are not allowed to form between passes of the squeegee. Any ridges that do form must be removed prior to the next application.

Allow Plexicushion Base Coat system to cure at least 24 hours before continuing to Plexicushion applications.

#### **PLEXICUSHION**

Apply 3 coats of Plexicushion at an average rate of .10-.11 gallons per square yard (.32-.35 liters per square meter) per coat.

Plexicushion shall be applied with a 50-durometer rubber squeegee, sing the following mix ratio.

Plexicushion	Clean, potable water		
4 parts	1 part		
Mix should not sit more than 10 minutes prior to application. Continuous mixing is recommended.			
Subsequent coats should not be applied until the previous coat is fully cured. Full cure could take up to 24 hours.			

Extreme care should be taken that ridges are not allowed to form between passes of the squeegee. Any ridges that do form must be removed prior to the next application.

Allow Plexicushion system to cure at least 24 hours before continuing to Plexipave applications.

## FORTIFIED PLEXIPAVE (FIELD-MIXED)

Fortified Plexipave shall be applied to a clean, dry surface in a minimum of 2 applications to obtain a total quantity of not less than .10 gallons per square yard (.32 liters per square meter), prior to any dilution. No application shall be covered by a succeeding application until thoroughly cured.

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Plexichrome Ultra Performance	Color Base	Mix	Clean, potable Water	Mix		
10 gallons	15 gallons	5 minutes or until uniform	10 gallons	5 mins or until uniform		
Mix should not sit more than 20 minutes prior to application.						
Cure time is approximately 4 hours under ideal conditions.						
Liquid Yield 35 gallons (133L)						

The diluted material shall be homogenous. The finished surface shall have a uniform appearance and be free from ridges and tool marks.

A light sanding may be necessary after the first coat of Plexipave, if any inconsistencies from the cushion layers are visible.

**PLAYING LINES** – Four hours minimum after completion of the color resurfacing, the appropriate line markings for the desired sport shall be accurately located, marked, and painted with California Line Paint as specified. For cleaner, sharper line markings, it is recommended that the masking tape be sealed with either Line Rite or undiluted Plexichrome Ultra Performance, prior to the application of the Line Paint.

Allow finished surface to cure a minimum of 24 hours before opening surface to use.

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## **LIMITATIONS**

Will not prevent surface or structural cracks from occurring or reoccurring Will not prevent metal or organic staining if there are contaminants in the subsurface. Do not allow product to freeze.

Do not store in direct sunlight.

Indoor applications will require a minimum constant temperature of 70°F (21°C) and proper air ventilation.

