

# Laykold Masters Color System

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## INSTALLATION GUIDE

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Advanced Polymer Technology (APT) has prepared this installation guide to aid in the application of the Laykold surfacing system. Any references to consumptions are approximate due to variations in site conditions and application techniques. Before starting any work, the applicator should thoroughly review this installation guide and all system component technical data sheets.

### Laykold Masters Color System

The Laykold Masters Color System consists of one coat of Masters Flexfill, one coat of Masters Filler, two coats of Masters Topcoat, and completed with Laykold Line paint.

### System Composition

<b>Advantage Laykold Component</b>	<b>Maximum Dilution Material to Water</b>	<b>Product Type</b>
LM Bond-Kote	None	1K Acrylic
Laykold PU Concrete Primer	None	2K PU
LM FlexFill	5:1	1K Acrylic
LM Filler	5:1	1K Acrylic
LM Topcoat 60/ LM Topcoat	4:1	1K Acrylic
LM Topcoat Finish	1:1	1K Acrylic
Laykold Line Paint	None	1K Acrylic

## **POT LIFE**

The pot life is set at a temperature of 68°F. Pot life will vary with temperature.

<b>Laykold Component</b>	<b>Pot Life</b>
Laykold PU Primer	40-50 minutes
Laykold Epoxy Primer	15-20 minutes

All other Laykold components are water-based acrylics. Excess material may be resealed and stored in a cool dry environment for future use. Shelf life is approximately 1 year.

## **SUBSTRATE REQUIREMENTS**

**Asphalt:** Shall be properly compacted to achieve specified density, and shall be paved in such a manner as to result in a true and even surface, meeting all dimensional and elevation accuracy. The asphalt surface shall be clean and free of all dirt, oil, grease or any other foreign matter. The minimum cure time for asphalt is 14 days.

**Concrete:** Shall be of a mix design that meets specifications, and shall be placed in such a manner as to result in a true and even surface, meeting all dimensional and elevation accuracy. The concrete surface shall be clean and free of all dirt, oil, grease or other foreign matter. The minimum cure time for concrete is 30 days. Concrete surface shall require RH testing prior to application of the Laykold system.

## **QUALITY ASSURANCE**

The installer of the Laykold Master surfacing, shall be certified by APT. All components shall be manufactured and supplied by APT, an ISO Certified company.

## **SURFACE PREPARATION**

Prior to application, the existing surface must be thoroughly cleaned, sound, dry, and free of oils and other bond inhibiting contaminants. Spalls, delaminations, potholes, scaling, pop outs, and other defects in the substrate must be addressed and all projections must be leveled prior to the commencement of the surfacing applications.

Once the surface has been thoroughly cleaned and is free of all loose material, dirt, or dust, the court shall be flooded and allowed to drain a minimum of 30 minutes and a maximum of 1 hour. Any area that holds water (birdbaths) in a depth greater than 1/16 inch (1.6 mm or the thickness of a nickel) shall be outlined and patched.

**Surface Leveling:** Birdbaths shall be leveled using a Laykold Acrylic Deep Patch court patch slurry. Prime area to be patched with a 50/50 mixture of Laykold Acrylic Deep Patch and water. Primer shall be brushed into place and allowed to dry prior to patching. Patch mix shall consist of Laykold Acrylic Deep Patch, 50-mesh sand and Type 1 Portland Cement. Mix as per manufacturer directions.

**Crack Filling:** Cracks shall be cleaned, primed, and filled using Laykold Acrylic Flexfill if cracks are 1/16 inch or less. If greater than 1/16 inch, Laykold Acrylic Deep Patch

court patch slurry shall be used to fill cracks. Refer to the Laykold Deep Patch technical data sheet for additional mixing details and application instructions for filling various sized cracks.

For applications over asphalt, the asphalt should be allowed to cure a minimum of 14 days.

For applications over concrete, the concrete should be allowed to cure a minimum of 30 days. For applications with less than 30 days cure, or when not meeting standard RH 75% results, contact APT for recommendations on primer. APT recommends the use of mechanical methods (shot blasting, sandblasting, or hydro blasting) to produce a clean and lightly textured surface. When hydro blasting, allow 24 hours for substrate to dry.

### **PRIMER (Concrete Only)**

When installing the Laykold system over concrete that meets the RH test result of 75%, use Laykold PU Concrete Primer. Laykold PU Concrete Primer is mixed by pouring the “B” component into the “A” component and mixing using a low speed jiffy mixer (400 to 600 rpm) for 2 minutes. Scrape down the sides of the bucket **and mix for an additional minute. Do not incorporate air when mixing. Spread the** mixed primer on the substrate using a high-quality, medium nap roller to achieve a total coverage of approximately 0.03 gal/yd<sup>2</sup> or 300 ft<sup>2</sup>/gal. Working time for Laykold PU Concrete Primer is approximately 40 – 50 minutes but is reduced in high temperatures. Lightly broadcast 40 to 60 mesh silica sand onto the wet primer at the rate of 5 pounds per 100 sq. ft. (0.24 kg/m<sup>2</sup>) to create a rough texture. Allow 5 to 7 hours drying time before proceeding to subsequent coats.

When the RH test exceeds 75% relative humidity levels, or for concrete with less than 30 day cure - contact APT for proper use of the Laykold Epoxy Concrete Primer – or reference TDS for proper handling, preparation, and application.

### **LM Bond-Kote – only required over PU primer**

The Laykold Bond-Kote is ready to use, do not dilute. Apply the Laykold Bond-Kote using first a rubber squeegee, and then followed by a high quality short nap roller to remove all excess air pockets, and achieve an even application. The application rate shall be 0.05-0.06 gal/yd<sup>2</sup> or 150-180 ft<sup>2</sup>/gal. Allow Bond-Kote to dry 2-4 hours, before proceeding with the application of Laykold coatings.

### **LM FLEXFILL – 1 coat – Only required for New Asphalt**

Apply the Laykold Flexfill using a 36” wide 55 Durometer flexible rubber squeegee. Thoroughly mix the Laykold Flexfill until the material is consistent in color and texture. The application rate shall be 0.05-0.07 gal/yd<sup>2</sup> 130-180 ft<sup>2</sup>/gal of undiluted Laykold, per coat. Each coat should be completely dry before applying subsequent coats.

### **LM Filler – 1 coat**

Apply the Laykold Fill using a 36” wide 55 Durometer flexible rubber squeegee. Thoroughly mix the Laykold Fill until the material is consistent in color and texture. The application rate shall be 0.06-0.07 gal/yd<sup>2</sup> or 130-150 ft<sup>2</sup>/gal of undiluted Laykold,

per coat. Each coat should be completely dry before applying subsequent coats. Inspect fill coats for lumps, nibs, or ridges and sand or scrape imperfections, as necessary.

### **LM Topcoat – 2-3 coats**

#### **Laykold MS2 – ITF Classification 2**

Apply two coats of LM Topcoat 60 using a 24", 30" or 36" 50 Durometer flexible rubber squeegee. Batch mix shall consist of 5 gallons of LM Topcoat 60 and 1.25 gallons of potable water. The application rate shall be 0.07-0.08 gal/yd<sup>2</sup> (0.47-0.52 kg/m<sup>2</sup> - 110-130 ft<sup>2</sup>/gal) of undiluted LM Topcoat 60 per coat. Each layer should be completely dry before applying subsequent layers.

The second LM Top Coat, is applied lengthwise on the court first with the rubber squeegee, and then followed with a broom/brushing of the coating to achieve an even, consistent application – thus eliminating the squeegee pattern.

Allow the final top coat to completely dry, before the application of tape and game lines.

#### **Laykold M3 – ITF Classification 3**

Apply two coats of LM Topcoat using a 24", 30" or 36" 50 Durometer flexible rubber squeegee. Batch mix shall consist of 5 gallons of LM Topcoat and 1.25 gallons of potable water. The application rate shall be 0.06-0.07 gal/yd<sup>2</sup> (0.41-0.47 kg/m<sup>2</sup> - 130-150 ft<sup>2</sup>/gal) of undiluted LM Topcoat per coat. Each layer should be completely dry before applying subsequent layers.

The second LM Top Coat, is applied lengthwise on the court first with the rubber squeegee, and then followed with a broom/brushing of the coating to achieve an even, consistent application – thus eliminating the squeegee pattern.

Allow the final top coat to completely dry, before the application of tape and game lines.

#### **Laykold MF4 – ITF Classification 4**

Apply two coats of LM Topcoat using a 24", 30" or 36" 50 Durometer flexible rubber squeegee. Batch mix shall consist of 5 gallons of LM Topcoat and 1.25 gallons of potable water. The application rate shall be 0.06-0.07 gal/yd<sup>2</sup> (0.41-0.47 kg/m<sup>2</sup> - 130-150 ft<sup>2</sup>/gal) of undiluted LM Topcoat per coat.

Apply one coat of LM Topcoat Finish using a 24", 30" or 36" 50 Durometer flexible rubber squeegee. Batch mix shall consist of 5 gallons of LM Topcoat Finish and 5 gallons of potable water. The application rate shall be 0.03-0.04 gal/yd<sup>2</sup> (0.17-0.23 kg/m<sup>2</sup> - 225-300 ft<sup>2</sup>/gal) of undiluted LM Topcoat Finish per coat.

Allow the final top coat to completely dry, before the application of tape and game lines.

### **GAME LINES (1-2 coats as needed)**

All lines are to be marked using masking tape according to U.S.T.A. and A.S.B.A. specifications. Wait a minimum of 24 hours after final Color Coat before applying any line primer or line paint. Prime masked lines with Laykold Line Prime and allow to dry until primer becomes clear. Apply one to two coats as needed of Laykold Textured White Line Paint using a paint brush or roller. Remove masking tape immediately after lines are dry. Allow lines to dry a minimum of 24 hours before allowing play on court.

## **COVERAGES**

Actual coverage rates are dependent upon a variety of factors relative to the field application. The installer must assess the conditions prior to ordering material. Allowances must be made for waste in mixing, pouring, and field conditions.

## **LIMITATIONS**

- ⇒ Minimum cure time for asphalt is 14 days, for concrete 30 days.
- ⇒ Do not apply over damp or wet substrates.
- ⇒ Do not apply coatings if extremely high humidity prevents drying.
- ⇒ Do not apply to surfaces during the out-gassing of vapor.
- ⇒ Minimum application and curing temperature 50°F (10°C).
- ⇒ Maximum substrate temperature 130°F (54°C).
- ⇒ Maximum moisture content of concrete 75% RH, per ASTM F2170 ( follow APT recommendations on RH levels above 75%)
- ⇒ Substrate temperature must be a minimum of 4° above the dew point.
- ⇒ Do not apply during inclement weather or when it is anticipated.
- ⇒ Water used in all mixtures shall be fresh and potable.

*Acrylic, all-weather tennis and athletic surfacing systems are designed and used to visually enhance asphalt and concrete substrates while providing a desired surface texture, surface pace and/or speed of play. Laykold systems and system components may be used to level surface depressions, fill substrate cracking, smooth surface roughness and make other such adjustments to a new or existing surface/substrate. However, acrylic all-weather tennis and athletic surfacing systems are NOT capable of solving the problems and/or forces associated with cracked, deteriorating, or damaged substrates.*

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