Acrylic Sport & Recreational Surfaces

SKATE ON LAYKOLD Specification

PART 1 – GENERAL

1.1 DESCRIPTION

Scope: This guide specification covers the construction and installation for the SKATE ON LAYKOLD inline skating surface. The work to be performed under this specification includes all labor, equipment, materials and supplies necessary for the installation of the inline rink(s) included in this contract. Advanced Polymer Technology Corporation of Harmony, Pennsylvania, U.S.A provides technical data and guideline specifications only. Consult with a professional engineer or architect for a formal specification. Skate On LAYKOLD is a multi-layer acrylic system designed for in-line skating surfaces. The products should be applied only to properly prepared concrete or asphalt substrates. The Skate On LAYKOLD system is comprised of Acrylic Resurfacer (Base Coat), Advantage Laykold (Wear Coat), and Colorcoat Concentrate (Top Coat). If the Skate On LAYKOLD products are to be applied to a concrete substrate, then Laykold Poly Primer (< 75% Relative Humidity) or Laykold Epoxy VTB Primer (≥75% Relative Humidity) is required.

1.2 QUALITY ASSURANCE

A. Inline skating surfacing materials shall be manufactured by Advanced Polymer Technology (APT) of Harmony, PA, an ISO 9001 and ISO 14001certified manufacturer. APT may be contacted via telephone 724-452-1330, fax 724-452-1703, or web sites www.laykold.com and www.advpolytech.com.

B. All work shall be done in accordance with American Sports Builders Association (ASBA) guidelines.

C. The contractor shall record the batch number of each product used on the site and maintain it through the warranty period.

D. The contractor shall provide the inspector, upon request, an estimate of the volume of each product to be used on the site.

1.3 SUBMITTALS

A. Submit one set of Advanced Polymer Technology's "Skate On LAYKOLD Specifications".

B. Submit system components Technical Data Sheets (TDS) and one Laykold Color Chart.

C. Submit current Safety Data Sheets (SDS).

D. Submit current ISO Quality Management System Certification certificate.

1.4 WORKING CONDITIONS & LIMITATIONS

A. Asphalt/concrete shall be allowed to cure a minimum of 30 days before any coatings are applied. If time sensitive and/or high RH level is present, Laykold Epoxy VTB Primer can be applied to 5-day old (minimum) concrete substrates according to coatings manufacturer guidelines. RH testing is required.

B. The substrate shall be CLEAN and DRY before coatings are applied. The surface of the substrate shall be inspected and made sure to be free of grease, oil, dust, dirt, and other foreign matter before any coatings are applied.

C. Water used in all mixtures shall be fresh and potable.

D. No part of the surfacing system shall be applied during a rainfall, or when rainfall is imminent.

E. Do not apply coatings to a cold surface. Surface and air temperature must be a minimum of 50°F (10°C) and rising.

F. Do not apply coatings is extremely high humidity prevents drying.

G. No coatings are to be applied if the surface temperatures exceed 130°F (54°C).

H. All materials shall be delivered to the job site in sealed containers with the manufacturer's label affixed.

I. Color(s) of inline skating system is to be selected by owner from manufacturer's product color card and/or product samples.

J. If all the above conditions are met, surfacing materials shall have a one-year limited warranty as supplied by the manufacturer.

1.5 WARRANTY

Advanced Polymer Technology Corp. (APT) warrants, subject to limitations, exclusions, terms and conditions contained herein, that the material supplied by APT, and which is covered by this Warranty, will not fail due to defects for one (1) year. APT's maximum responsibility under this Limited Warranty shall be limited to the replacement of material in a quantity not in
excess of the quantity of material furnished by APT in connection with the project. No salesman or other employee or agent of APT is authorized to bind APT by any agreement, warranty, promise, or understanding not herein expressed.

This Limited Warranty is made and given in lieu of all other warranties and conditions, expressed or implied, statutory or otherwise, including but not limited to any warranties or conditions of merchantability, durability and of fitness for a particular purpose. Under no circumstances shall APT be liable or otherwise obligated for indirect, incidental or consequential damages of any nature or kind whatsoever, including damages arising in contract, tort, product liability or otherwise.

PART 2 – PRODUCTS

2.1 SKATE ON MATERIALS

A. All components for the Skate On system shall be supplied by Advanced Polymer Technology, an ISO 9001and ISO 14001 certified manufacturer. All components shall not contain ANY lead, mercury, nor any heavy metals, PCB, or formaldehyde.

B. Laykold Poly Primer/Laykold Epoxy VTB Primer (concrete only) – two component, 100% solids, solvent-free primer.
   1. Percent Solids by Weight: 98% (minimum)
   2. Weight: 10.7 lbs/gallon

C. Acrylic Resurfacer (Base Coat) – acrylic-based emulsion used for smoothing rough pavements. 1 to 2 coats as required. Laykold NuSurf is recommended for use on new asphalt and is an acceptable substitute for Acrylic Resurfacer.
   1. Percentage Solids by weight: 52% (minimum)
   2. Weight: 10.7 lbs/gallon

D. Advantage Laykold (Wear Coat) – factory textured, pigmented wear-resistant acrylic emulsion. 2-coats required. No bagged sand is to be added at jobsite.
   1. Percent Solids by Weight: 72.9% (minimum)
   2. Weight: 12.52 lbs/gallon

E. Colorcoat Concentrate (Top Coat) – pigmented wear-resistant acrylic emulsion. 1-coat required.
   1. Percent Solids by Weight 49 % (minimum)
   2. Weight: 9.47-9.52 lbs/gallon

F. Laykold Line Prime – clear drying acrylic emulsion line primer. 1-coat required.
   1. Percent Solids by Weight: 29% (minimum)
   2. Weight: 8.9 lbs/gallon

G. Laykold Textured White Line Paint – factory textured, wear-resistant acrylic emulsion line marking paint. 1-2 coats as required.
   1. Percent Solids by Weight: 67% (minimum)
   2. Weight: 11.4 lbs/gallon

PART 3 – EXECUTION

3.1 INSPECTION

A. Concrete substrates shall be installed with a vapor barrier according to ASBA guidelines and be finished with a CSP 3 profile.

B. Inspect concrete or asphalt substrate for dryness. Concrete substrates are to be tested according to coating manufacturer guidelines using ASTM F2170 (Relative Humidity testing via probe) or ASTM F1869-98 (Anhydrous Calcium Chloride test). Report any discrepancies to the general contractor or owner.

C. Surface of substrate shall be cleaned by general contractor as required.

D. Surfacing contractor to approve site and surface conditions prior to proceeding with application of any coatings.

3.2 INSTALLATION

A. Primer (for concrete substrates only): When installing the Laykold ColorCoat system over concrete, Laykold Poly Primer must be applied as the first layer of the system. After RH tests less than 75%, Laykold Poly Primer can be applied. Laykold Poly 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 0.030 gal/yd^2 (0.15 kg/m^2 - 300 ft^2/gal). The working time for the Primer is approximately 50 minutes and 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^2) to create a rough texture. Allow 5 to 6 hours drying time before proceeding. If the concrete substrate tests with RH of 75% or greater or a MVER (Anhydrous Calcium Chloride) of greater than 3 lbs/1000 sqf/24 hours, more cure time is required or Laykold Epoxy VTB Primer can be used (see Laykold Epoxy VTB Primer TDS for application guidelines). Acrylic Concrete Primer may be substituted under certain conditions when

approved by owner and/or design professional. If approved for use, see Acrylic Concrete Primer technical data sheet for application details.

B. Patching: 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.
   1. Surface Leveling: Birdbaths shall be leveled using Laykold Acrylic Deep Patch court patch binder 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.
   2. Crack Filling: Cracks shall be cleaned, primed, and filled using Laykold Acrylic Resurfacer if cracks are 1/16 inch or less. If greater than 1/16 inch, Laykold Acrylic Deep Patch court patch binder slurry should be used to fill cracks. Mix as per manufacturer's directions.
   3. All areas that are repaired/leveled/corrected using a court patch binder mixture shall be allowed to fully cure and then ground smooth and level with the substrate by stone or an acceptable mechanical method.

C. Base Coat: Apply one coat of Laykold Acrylic Resurfacer using a 24", 30" or 36" wide 70 Durometer flexible rubber squeegee. Batch mix shall consist of 55 gallons (260 kg) of Laykold Acrylic Resurfacer, 30 to 40 gallons (115-130 kg) of potable water, and 600 to 900 pounds (270-400 kg) of clean, bagged silica sand (60 to 80 mesh). The application rate shall be 0.05-0.07 gal/yd^2 (0.29-0.40 kg/m^2 - 129-180 ft^2/gal) of undiluted Laykold Acrylic Resurfacer per coat. NOTE: If the asphalt is very porous, an optional 2nd application of Laykold Acrylic Resurfacer may be applied. Each coat should be completely dry before applying subsequent coats. Laykold Nusurf is an acceptable substitute for Laykold Acrylic Resurfacer and is highly recommended for use on new asphalt pavements, older asphalt pavements with hairline surface cracking, slip-sheet/free-floating surfaces and/or repair methods over cushioned courts.

D. Wear Coat: Apply two coats of Advantage Laykold textured color concentrate batch mixture using a 24", 30" or 36" 50 Durometer flexible rubber squeegee. Batch mix shall consist of 30 gallons (170 kg) of Advantage Laykold and 15-20 gallons (55-75 kg) of potable water. The application rate shall be 0.06-0.07 gal/yd^2 (0.41-0.47 kg/m^2 - 130-150 ft^2/gal) of undiluted Advantage Laykold per coat. Each coat should be completely dry before applying subsequent coats.

E. Top Coat: Apply one coat of Laykold ColorCoat Concentrate finish batch mixture using a 24", 30" or 36" 50 Durometer flexible rubber squeegee. Batch mix shall consist of 55 gallons (260 kg) of Colorcoat Concentrate and 55 gallons (210 kg) of potable water. The application rate shall be 0.03-0.04 gal/yd^2 (0.17-0.23 kg/m^2 - 225-300 ft^2/gal) of undiluted Colorcoat Concentrate per coat.

F. Game Lines: Apply one to two coats of Laykold White Line Paint, as needed.
   1. Wait a minimum of 24 hours after final Top Coat before applying line paint.
   2. All lines are to be applied by painting between masking tape with a paintbrush or roller according to U.S.T.A. and ASBA specifications.
   3. Prime masked lines with Laykold Line Prime and allow to dry.
   4. Remove masking tape immediately after lines are dry.

G. Remove all excess and waste materials from the area of work. Dispose of empty containers in accordance with federal and local statutes.

3.3 PROTECTION

A. Cure Time -- no traffic or other trades shall be allowed on the surface for a period of one week following completion to allow for complete and proper cure of the finish.

B. Other Trades -- it is the responsibility of the general contractor to protect the surface from damage by other trades before acceptance by the owner or the owner's authorized agent.

C. Do not allow surrounding sprinkler systems to spray water on the newly applied surface for a period of one week after completion.

D. Do not place any benches, chairs, or any other type of equipment on the newl applied surface for a period of one week after completion.