

Laykold®
GymSports

SYSTEM GUIDE SPECIFICATION

INDOOR RESILIENT MULTISPORT,
MULTIPURPOSE SURFACING





PART 1 GENERAL

1.1 DESCRIPTION

- A.** Scope: Technical data and guideline specifications for the installation of the Laykold GymSports indoor resilient multisport, multipurpose floor by Advanced Polymer Technology Asia Pacific Pty Ltd. This is a seamless and resilient indoor gymnasium flooring system comprised of a rubber and polyurethane base mat that is glued to the adequately prepared substrate with polyurethane adhesive. The base mat is then sealed with polyurethane seal coat and a 2mm pour of polyurethane resin wear coat is applied. Finally, a pigmented top finish coat is applied to the wear coat and game lines are applied.
- B.** Related work specified under other sections.

CONCRETE SUBFLOORS

- A.** Slab depression shall be thickness of base mat plus urethane wear coat (2mm).

The general contractor shall furnish and install the concrete sub floors, depressing the slab sufficiently to accommodate the floor system. The slab shall be a helicopter trowel smooth finish to a tolerance of $\pm 3\text{mm}$ when measured under a 3 metre straight edge in any direction. High spots shall be ground level, and low spots filled in with approved levelling compound. No concrete curing or hardening agents shall be applied to concrete sub floor.

Do not install Laykold GymSports flooring over new concrete until concrete has been cured for at least 28 days. Moisture content of the slab must be below 3 lbs. moisture using the Calcium Chloride test method.

1.2 QUALITY ASSURANCE

- A.** Manufacturer: Manufacturer of resilient flooring shall be a company specializing in manufacturing the products specified in this section. Manufacturer must be ISO 9001 certified.
- B.** Installer: The complete installation of the flooring system shall be carried out by an experienced Contractor approved by the manufacturer and the work shall be performed in accordance with the most recent installation instructions of the manufacturer.

1.3 SUBMITTALS

- A.** Submit one set of Advanced Polymer Technology "Laykold GymSports System Guide Specifications".
- B.** Submit one chart of finish colour coating options and game line paint colour options.
- C.** Submit one sample of specified system.

1.4 WORKING CONDITIONS

- A.** Synthetic materials specified herein shall not be installed until all masonry, painting, plaster, tile, marble and Terrazzo work is completed. The building shall be enclosed and weather tight.
- B.** Permanent heat, light and ventilation shall be installed and operating during and after installation. The general contractor shall provide an appropriate storage area where the stored materials can be maintained at a minimum temperature of 10°C and under 50% relative humidity. Ideal installation and storage conditions are the same as those which prevail when the building is occupied.
- C.** Sub floors shall be clean, dry, and free from dirt, dust, oil, grease, paint, alkali, concrete curing agents, hardening compounds, old adhesive residue or other foreign materials. Moderate room temperature of 18°C or more shall be maintained for a week prior to and during installation.
- D.** Flooring installation shall not begin until all sub-contract work which would cause damage, dirt, dust or interruption of normal installation procedures is completed. The installation area shall be closed to all traffic and activity for a period to be set by the flooring contractor.
- E.** Environmental Limitations
 1. Comply with requirements of athletic flooring material supplier's requirements.
 2. Adhere to all MSDS requirements for materials employed in the work. Protect all persons from exposure to hazardous materials.
- F.** After synthetic floors are installed and the game lines painted, area to be kept locked by general contractor to allow curing time for system. No other trades or personnel are allowed on floor until accepted by owner.

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1.5 WARRANTY

Advanced Polymer Technology Asia Pacific Pty Ltd 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 five (5) years. 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 LAYKOLD GYMSPORTS CLASSIC MATERIALS

- A.** All polyurethane components for synthetic sandwich system shall be supplied by Advanced Polymer Technology. All component materials shall be non-hazardous and not contain ANY lead, mercury, nor any heavy metals, PCB, or formaldehyde.
- B. Qualipur 102 Primer** (if specified or necessary) shall be a two-component epoxy.
- C. Qualipur 2560 Adhesive** shall be two-component polyurethane.
- D. Base mat** shall be a prefabricated recycled rubber mat made of all recycled rubber granules bound with MDI polyurethane and manufactured to a constant thickness.
 - 1. Base mat density – 750 kg/m³ minimum
 - 2. Base mat thickness – 7mm (optional thickness 4mm, 5mm, 7mm, 9mm or as specified).

- E. Qualipur 4550 Pore Filler** (mat sealer) – two-component, thixotropic polyurethane compound.
- F. Qualipur 5610 Wear Coat** – two-component, pigmented, self-levelling and seamless polyurethane.
 - 1. Total wear thickness – 2.00mm throughout the floor.
 - 2. Pigmented colour: gray (standard).
- G. Qualipur 6511 Top Coat** (matte finish) – two-component polyurethane. Select from standard colours.
- H. Qualipur 7600 Line Paint** – two-component polyurethane. Select from standard colours.

PART 3 EXECUTION

3.1 INSPECTION

- A.** Inspect concrete slab for proper tolerance and dryness. Report any discrepancies to general contractor.
- B.** Concrete slab shall be broom cleaned by general contractor.
- C.** Floor contractor to approve field conditions prior to commencement of installation.

3.2 INSTALLATION

- A.** Primer: if specified or necessary, apply Qualipur 102 to the concrete at the rate of 0.15-0.20 kg/m²
- B. Base mat:**
 - 1. Unroll base mat and allow it to relax. Do not cut base mat to final dimensions until laid into adhesive.
 - 2. Thoroughly mix the two-component polyurethane Qualipur 2560 and apply directly to the concrete sub floor with a notched trowel as per manufacturer's instructions at the rate of 0.6-1.0 kg/m².
 - 3. Install base mat into freshly applied adhesive. Do not allow compression fit at any seams. Roll base mat with a 45kg linoleum roller and repeat the rolling process over the entire area for 45 minutes after installation. Allow adhesive to cure a minimum of 8 hours before proceeding to seal coat.

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C. Seal Coat:

1. Thoroughly mix the two-component polyurethane Qualipur 4550.
2. Apply two layers of seal coat to base mat with a flat trowel achieving a total of 0.6-1.2 kg/m². Allow each layer to cure a minimum of 8 hours before proceeding to the next application. Inspect for and fill all gaps applying additional material as needed. Sand down any ridges in cured seal coat with 80 grit sandpaper.

D. Wear Coat:

1. Thoroughly mix two-component polyurethane Qualipur 5610.
2. Apply mixed material using a notched squeegee or trowel at the rate of 2.2 kg/m² applied in one 2mm layer. The wear coat must be applied wet-into-wet to create a seamless surface. Allow wear coat to cure 12 hours before proceeding to the next application. Manually sand any imperfections in the finished surface with 150 grit sandpaper.

E. Top Coat:

1. Thoroughly mix two-component polyurethane Qualipur 6511.
2. Apply mixed material with a medium nap roller (12mm) at the rate of 0.15-0.20 kg/m². To avoid differences in the top coat texture, always maintain the same pattern and feather off when overlapping.
3. Allow topcoat to cure a minimum of 18 hours before applying game lines.

F. Game Lines:

1. Use only high quality masking tape approved by manufacturer.
2. Thoroughly mix two-component polyurethane Qualipur 7600. Apply mixed material with a brush or roller at the consumption rate 60-80 g/m² for a line width of 50mm.
3. Provide game lines as indicated on drawings.

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

2. Thoroughly mix the two-component polyurethane Qualipur 2560 and apply directly to the concrete sub floor with a notched trowel as per manufacturer's instructions at the rate of 0.6-1.0 kg/m².
3. Install base mat into freshly applied adhesive. Do not allow compression fit at any seams. Roll base mat with a 45kg linoleum roller and repeat the rolling process over the entire area for 45 minutes after installation. Allow adhesive to cure a minimum of 8 hours before proceeding to seal coat.

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

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