



INSTALLATION INSTRUCTIONS

POWERSTOCK PLUS

SUGGESTED TOOL LIST:

- Broom or vacuum
- Chalk line & chalk
- Gloves
- Kraft paper (optional)
- Metal straight edge or Drywall T-square
- Standard tape measure
- Utility knife and replacement blades
- 1/16" x 1/16" x 1/16" Square-notched trowel (glue down only)
- 100 lb roller (glue down only)
- Blue painters tape
- Denatured alcohol
- Microfiber rags/towels

I. JOB SITE CONDITIONS

- A Installation should not begin until after all other trades are finished in the area. If the job requires other trades to work in the area after the installation of the floor, the floor should be protected with an appropriate cover. Kraft paper or plastic work well.
- B Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.

II. SUBFLOORS

POWERSTOCK Plus may be installed over concrete, approved Portland-based patching and leveling materials such as Ardex K-15 or equivalent, and wood.

NOTE: Ardex Engineered Cements
400 Ardex Park Drive
Aliquippa, PA 15001
(724) 203-5000

NOTE: Gypsum-based patching and leveling compounds are not acceptable.

- A Wood Subfloors – wood subfloors should be double construction with a minimum thickness of one inch. The floor must be rigid, and free from movement with a minimum of 18 inches of well-ventilated air space below.
- B Underlayments – The preferred underlayment panel is the American Plywood Association (APA) underlayment grade plywood, a minimum thickness of 1/4", with a fully sanded face.

NOTE: Particleboard, chipboard, Masonite, and lauan are not considered to be suitable underlayments.

- C Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days and meet the relative humidity requirements per ASTM F2710 or the calcium chloride moisture emission test conducted per ASTM F1869 before installing **POWERStock Plus**. It must be fully cured and permanently dried.

NOTE: Read further for dryness requirements.

III. SUBFLOOR REQUIREMENTS AND PREPARATION

- A Subfloors shall be dry, clean, smooth, level, and structurally sound. They should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue, and other extraneous materials, according to ASTM F710.
- B Subfloors should be smooth to prevent irregularities, roughness, or other defects from telegraphing through the new flooring. The surface should be flat to the equivalent of +/- 3/16" (4.8 mm) in 10' (3.0 m).
- C Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with an approved Portland-based patching compound.
- D All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with an approved Portland-based patching compound.
- E Expansion joints in the concrete are designed to allow for expansion and contraction of the concrete. If a floor covering is installed over an expansion joint, it will likely fail in that area. Use expansion joint covers designed for resilient flooring.

NOTE: Expansion joint covers can be obtained from:
Balco, Inc.
2626 South Sheridan
P.O. Box 17249
Wichita, KS 67217
(800) 767-0082

- F Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling reaction with the **PU350** adhesive.
- G The maximum moisture vapor emission of the concrete must not exceed 5-1/2 lbs./1,000 sq. ft. in 24-hours, as measured by the calcium chloride moisture emission test conducted per ASTM F1869. Alternatively, if the RH method is used, the maximum RH should not exceed 85% RH tested following ASTM 2710. If the emissions exceed limitations, the installation should not proceed until the problem has been corrected.

- H pH tests must be taken on all concrete floors. If the pH is greater than 9, it must be neutralized before beginning the installation.
- I Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3' x 3' test pieces of the flooring with the recommended adhesive and trowel. Allow it to set for 72 hours before attempting to remove it. A sufficient amount of force should be required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and the back of the test pieces.

NOTE: This product is suitable for installation over a radiant heat source.

IV. MATERIAL STORAGE AND HANDLING

- A The material should be delivered to the job site in its original, unopened packaging with all labels intact.
- B Roll material should always be stored laying down. Storing rubber on end will curl the edges resulting in the permanent memory of the material. All edges with memory curl must be straight edge cut before installation. Do not store rolls higher than 4 rolls or more than six months. The material should only be stored on a clean, dry, and smooth surface.
- C **Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**
- D The material and adhesive must be acclimated at room temperature for a minimum of 24 hours before starting installation.
- E All **POWERStock Plus** rolls must be unrolled and installed in the same direction. Laying rolls in the opposite direction will cause color variations between the rolls. Follow the roll sequencing by identifying the log ID and roll number found on the roll label.
- F Roll material is stretched slightly during the manufacturing process. At the job site, the installer should allow all cuts to relax for a minimum of 12 hours (24 hours preferred) before installing. Shaking the material once it is unrolled can help it to relax.

V. INSTALLATION – ROLL MATERIAL

- A Assume that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for an edge of the flooring to follow.
- B Remove the **POWERStock Plus** from the shrink-wrap and unroll it onto the floor. Lay the **POWERStock Plus** on the floor in a way that will use your cuts efficiently. Cut all rolls at the required length, including enough to run up the wall.
- C Allow the cuts to relax in position for a minimum of 12 hours. 24 hours is preferred.
- D Place the edge of the first roll along the chalk line.
- E Position the second roll with no more than a 1/16" overlap over the first roll at the seam. Work the material back to eliminate the overlap. This procedure will leave tight seams and eliminate any gaps.
- F Repeat for each consecutive roll necessary to complete the area or those rolls that will be installed that day.

Please contact Abacus Sports Installations (717-560-8050) for specific questions that may not be outlined in these instructions.

- G METHOD 1 – GLUE DOWN (Rolls)

NOTE: 3/8" (9mm) or thicker are the only approved thickness for both ice rinks and outdoor applications.

- 1 After performing the above procedures, begin the application of the adhesive. We recommend **PU350**, a one-component moisture-cured polyurethane adhesive. **PU350** should not be mixed. It is specially formulated for use right out of the pail. Apply **PU350** to the substrate using a 1/16" x 1/16" x 1/16" square-notched trowel.
- 2 Fold over the first drop along the wall (half the width of the roll).
- 3 Spread the adhesive using the proper size square-notched trowel. Take care not to spread more **PU350** than can be covered with flooring within 30 minutes. The open time of the adhesive is 30–40 minutes at 70°F and 50% relative humidity.

NOTE: Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity below 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

- Carefully lay the flooring into the wet adhesive. Do not allow the material to “flop” into place; this may cause air entrapment and bubbles beneath the flooring.

NOTE: **If the adhesive gets onto the finish side of the floor it is important to remove it immediately (while wet) using a microfiber rag and denatured alcohol before it hardens. Apply the denatured alcohol directly to a rag and never directly to the floor. Use denatured alcohol sparingly — saturating the rubber with the denatured alcohol may discolor the floor. Follow the denatured alcohol with a dampened rag with clean water to remove the excess denatured alcohol.**

- Immediately roll the floor with a 100 lb. roller to ensure proper adhesive transfer. Overlap each roller pass by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length. If seams are peaking it may be necessary to weigh them down using concrete construction brinks.
- Fold over the second half of the first roll and half of the second roll. Spread the adhesive. Spread the adhesive at right angles to the seam to prevent the adhesive from oozing up through the seam. Gently lay (do not flop) flooring into the wet adhesive. Roll the flooring.
- Continue the process for each consecutive drop. Work at a pace so that you are always folding material back into wet adhesive.

NOTE: Never leave adhesive ridges or puddles. They will telegraph through the material.

- Do not allow **PU350** to cure on your hands or the flooring. Immediately wipe off excess adhesive with a rag dampened with denatured alcohol. Cured adhesive is very difficult to remove from hands. We strongly suggest wearing gloves while using **PU350**.

- If some seams are gapping, temporarily hold them together with blue painters tape. Do not use duct tape as it may leave a residue on the floor. Important: remove the tape after the adhesive develops a firm set, which is about 2–3 hours. Allowing the blue tape to remain longer than 2–3 hours or using an aggressive tape will cause residue marks.**
- Keep traffic off the floor for a minimum of 24 hours. Foot traffic and rolling loads can cause permanent indentations in the uncured adhesive. If moving equipment onto the floor wait a minimum of 48-72 hours and protect the floor from heavy loads if necessary using 3/4" plywood.

HAZARDS:

SILICA WARNING: Concrete, floor patching compounds, toppings and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the applicable exposure limits.

ASBESTOS WARNING: Resilient flooring, backing, lining felt, paint or asphaltic "cutback" adhesives can contain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize. Regulations may require that the material be tested to determine the asbestos content. Consult the document "Recommended Work Practices for Removal of Existing Resilient Floor Coverings" available from the Resilient Floor Covering Institute.

LEAD WARNING: Certain paints can contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state and local laws and the publication "Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing" available from the United States Department of Housing and Urban Development.

Abacus Sports Installations

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