

ATHLETIC SURFACING (RUBBER SHEET GOODS) (FOR POWERPLAY II)

DISCLAIMER: Refer to page 7 of this document.

1 SURFACE PREPARATION

1.1 GENERAL CONTRACTOR

- a) All subfloors must be properly prepared to provide a satisfactory bonding surface for the adhesive being used to install the resilient flooring. Refer to Mondo's current [Subfloor Preparation Guide](#) for all requirements.
- b) The General Contractor must provide a finished concrete subfloor ready to receive Mondo's resilient rubber flooring. Subfloors must be smooth and level within a tolerance of 1/8" (3 mm) in a 10' (3.05 m) radius. Mondo does not recognize "F" numbers: FF = floor flatness, FL = floor levelness. Minor surface cracks or grooves must be filled with a good quality Portland cement-based patching or leveling compound such as Mapei or Ardex. High spots, bumps and peaks must be repaired prior to installation. Mondo recommends a magnesium trowel finish. Please note that while a smooth surface is desired, a shiny, slick, and non-porous or conversely, an over-porous slab is not acceptable and will require additional preparation prior to installing Mondo flooring products. Once the subfloor preparation is complete, you should have a CSP (Concrete Surface Profile) of about 1.
- c) New concrete subfloors must be allowed to cure a minimum of 28 days prior to installing Mondo flooring. However, drying time is typically 4 weeks for every 1" thickness of slab (i.e., a 6" slab will take approximately 24 weeks to adequately dry).
- d) Maintain a stable room and subfloor temperature prior to installation (before performing moisture tests), during the installation and min. 48 hours after the installation. Recommended temperature range of 65°F to 86°F (18°C to 30°C). General recommended ambient humidity control level is between 35 to 55%.
- e) Concrete substrates must be fully cured and free of any hydrostatic and/or moisture problems. Moisture and alkalinity tests must be performed on all concrete substrates, under in-service conditions. It is recommended to turn on the HVAC unit to ensure stable conditions during testing and installation. The pH level should be in the range of 7 to 10. Readings below 7 and in excess of 10 have been known to affect some adhesives. Moisture vapor emission content of the concrete slab must not exceed the tolerance of the adhesive specified when tested according to ASTM F1869 (anhydrous calcium chloride for moisture vapors from concrete), and relative humidity of concrete slab must not exceed the tolerance of the adhesive specified when tested according to ASTM F2170 (in-situ probes for relative humidity in concrete slab).

IMPORTANT: Moisture tests will help confirm whether the slab is dry enough to proceed with the installation. It does not mean the slab will always remain dry. Never attempt a moisture test until the HVAC unit has been operational for at least 7 days and/or the site conditions (temperature and humidity) are constant in the building and reflective of in-service conditions.

MONDO WILL NOT GUARANTEE THE ADHESION OF A MONDO PRODUCT TO A SUBFLOOR WITH RELATIVE HUMIDITY OR MOISTURE VAPOR EMISSIONS RATES EXCEEDING THE TOLERANCE OF THE SPECIFIED ADHESIVE, WHEN TESTED IN ACCORDANCE WITH ASTM F2170 AND F1869.

1.2 FLOORING CONTRACTOR/SUBCONTRACTOR

- a) Before proceeding with any work, the substrate surface must be inspected and any visible defects on the surface such as cracks, bumps, rough areas or variations in levelness must be reported in writing to the Project Manager and the General Contractor.
- b) The Flooring Contractor/Subcontractor must verify moisture testing results to ensure they are within tolerance for the adhesive specified. Refer to Mondo's Subfloor Preparation Guide for recommendations on moisture testing. The Flooring Contractor should keep records of all tests conducted.
- c) Concrete subfloors must be dry, sufficiently porous, smooth, clean and free of paint, wax, dust, oil, sealers, grease, curing agents, surface hardeners, solvents, asphalt, old adhesives and any other contaminants that could inhibit or reduce bond strength. Concrete surfaces that are powdery or scaly are not acceptable. Mondo recommends the removal of contaminants by way of mechanical abatement, such as a light to medium shot-blasting (ICRI CSP #3 to #5 profile). NEVER use chemical abatement methods. Ensure removal of contaminant was successful by performing a bond test, as described in Mondo's Subfloor Preparation Guide.
- d) Prior to beginning any installation of Mondo products, it is recommended that the entire room be vacuumed thoroughly to remove dust, loose dirt and debris. DO NOT use sweeping compounds. If desired, use damp sawdust to help with sweeping.
- e) Store sheet goods upright on a clean, dry, flat surface protected from all possible damage and exposure to harmful weather conditions.

2 POWERPLAY II INSTALLATION

2.1 ATHLETIC SURFACING (Rubber Sheet goods)

- a) Do not install POWERPLAY II until all job-site conditions and subfloor preparations are met and completed. Before starting any installation, verify the product for type, size, thickness, color, visual imperfections or color variations and notify the Mondo Technical Department of all apparent defects. No claims will be accepted after the material has been installed.
- b) Once the above steps have been completed, proceed to square the room and make the first chalk line down the center of the room parallel to the length of the room.
- c) Unroll material in the same direction and follow the numbered roll sequence. End seams should be staggered on the floor and overlapped approximately 6" (15 cm).
- d) Once unrolled, allow rubber sheets to relax overnight. Colder facility temperatures may necessitate longer relaxation time.
- e) If a multiple color layout is to be made, double-checking measurements will avoid problems. Make sure that the seams between two colors will be in the middle of the painted game lines (if applicable), whenever possible to do so.
- f) Dry lay and rough cut all material to be installed on a given day prior to any adhesion.

2.2 TROWEL SIZE

- a) Jobsite/substrate conditions will affect spread rate, it may be necessary to adjust trowel size or perform additional surface preparation. It is recommended to change trowels every so often in order to ensure the teeth are not worn out and that the adhesive spread is consistent throughout.

Athletic Rubber Flooring	Recommended Trowel*			
	Height	Width	Spacing	Notch
POWERPLAYII (MP1000 or MP95-MAX / PU300)	1/16" (1.6mm)	1/16" (1.6mm)	3/32" (2.4mm)	U shaped

2.3 RECOMMENDED ADHESIVES

- POWERPLAY II athletic surfacing products should be installed using Mondo's MP1000 or MP95-MAX Acrylic Adhesives or polyurethane PU300.
- IMPORTANT:** Mondo's MP1000 and MP95-MAX adhesive cannot be used when installing over Everlay. The only suitable adhesive for installing POWERPLAY II over Everlay is the polyurethane Mondo PU 300.
- IMPORTANT: When using MP1000 or MP95-MAX adhesive, seams MUST be heat welded**
- IMPORTANT:** Do not install in temperatures below 65°F (18°C) or above 86°F (30°C). Ambient temperature will affect the curing time of the adhesive. Lower temperatures will decelerate the curing time while higher temperatures will accelerate curing. Special care should be taken to accommodate ambient temperature to ensure proper transfer of adhesive.

2.4 ADHESIVE APPLICATION

- Refer to the specified adhesive's current technical data sheet for complete instructions on use.
- A bond test is recommended before proceeding with an installation to ensure good bond strength.

2.5 ROLLED METHOD

- If there are issues with the longitudinal sides of the rolls and/or they are not perfectly straight, trimming will be necessary.
- End seams should be trimmed a minimum of 2 inches. To make perfect end seams, the edges of the seam must be trimmed in with the help of a straight edge.
- IMPORTANT:** Cutting the seams may cause small pieces of the foaming layer to detach. This material must be removed to prevent it from remaining between the screed and the floor during gluing.
- IMPORTANT:** A proper cut should be made in multiple passes. The first pass should score through the wear layer using a utility knife. The second pass should be made using a sharp blade. Experienced installers may choose to use other types of cutting tools but end results should be the same as required.
- Roll back the material starting at one end (head seam) to approximately half of the roll length.
- Glue down entire row of material to subfloor before starting another row.
- When placing material in wet adhesive, frequently check for a good transfer of adhesive (90% minimum) to the back of the surfacing.
- Manually work seams so that they are flat, flush and even.
- Use a lightweight 100 lbs (45 kg) roller to eliminate entrapped air, which could remain between the subfloor and the floor covering. Roll in multiple directions, first rolling across width then along the roll length
- Use a trowel and masking tape to keep the joints adjacent. The tape can be removed after 24 hours.

- k) Remove any wet adhesive oozing from seams with denatured alcohol while the adhesive is wet. Dried adhesive residue will be extremely difficult to remove if not impossible. **DO NOT USE SOLVENT BASED PRODUCTS** as they could discolor the material.

TYPICAL LAYOUT OF POWERPLAY II ATHLETIC SURFACING

Roll no. 1	Balance of roll no. 4	Balance of roll no. 7	Balance of roll no. 9	Balance of roll no. 12	Balance of roll no. 15	Balance of roll no. 18	Balance of roll no. 20	Balance of roll no. 23
	Roll no. 5		Roll no. 10				Roll no. 21	
Roll no. 2		Roll no. 8		Roll no. 13	Roll no. 16	Roll no. 19		
	Roll no. 6		Roll no. 11		Roll no. 17		Roll no. 22	Roll no. 24
				Roll no. 14				
Roll no. 3		Roll no. 9				Roll no. 20		
	Roll no. 7		Roll no. 12		Roll no. 18			Roll no. 25
Roll no. 4				Roll no. 15			Roll no. 23	

3 HEAT WELDING

- a) **IMPORTANT:** POWERPLAY II athletic rubber sheet goods **MUST** be **heat-welded** at each seam when installed with MP1000 or MP95-MAX adhesives.
- b) Heat welding of the seams is optional when installed with PU300.
- c) **IMPORTANT:** If you have never heat welded rubber floor covering before, you should not attempt to do so without adequate training and/or qualified supervision on site. Call Mondo's Technical Department for further details.

3.1 CUTTING SEAMS FOR HEAT WELDING

- a) Heat welding can only be performed a minimum of 24 hours after gluing down the material.
- b) Seams must be straight to achieve a proper weld.
- c) Seams are fitted using an under scribe or may be cut with a seam cutter for heat welding. Set the under scribe to produce a net fit maximum 1/32" (1 mm) gap. Seams can be routed with an electrical groover or by hand using a straight edge and hand groover.
- d) **IMPORTANT:** Ensure a consistent and accurate gap in all seams; leave the proper space for the guide of the electrical groover. Trim off material at scribe mark with a sharp blade, when using an under scribe. Use sectional roller or steel hand roller and go over the seams to ensure a flush seam before heat welding.
- e) End seams are treated following the same recommendations as for the side seams. However, material wound up at the inside of a roll may require the end to be back rolled and/or heated with a hot air gun to relax any curling.

3.2 SEAM GROOVING

- a) Before the electric grooving machine can be used, each end of the seam must be hand grooved with the hand grooving tool for approximately 6" (15 cm) to 8" (20 cm).
- b) **IMPORTANT:** It is recommended that a trial run be made on two pieces of scrap flooring fastened with double face tape (to simulate a seam) before grooving actual seams. Set blade depth equal to 2/3 of the material or wear layer thickness.
- c) Seams can be routed with an electrical groover or by hand using a straight edge and hand groover.
- d) **IMPORTANT:** Never adjust blade when machine is turned on or plugged into an electrical outlet. Place the grooving machine on floor in the hand grooved area, lining up the front guide and the back wheel in the groove. Turn on and begin pushing the machine along the seam. Do not apply excessive pressure.
- e) Inspect the depth of the groove after a few feet of operation and adjust if necessary. Use only the tapered type blade in the electric router.
- f) The width of the groove should equal approximately 2/3 of the width of the weld rod itself. Mondo weld rod is approximately 4 mm thick.

3.3 HEAT WELDING PROCEDURE

- a) **IMPORTANT:** If you have never heat welded rubber floor covering before, you should not attempt to do so without adequate training and/or qualified supervision on site. Call Mondo's Technical Department for further details.
- b) Verify that the weld rod on the job site corresponds to the specified color.
- c) Routed seams must be free of dirt, adhesive and any other foreign particles before they are heat welded. Seams that cannot be welded the same day but have already been routed should be protected to keep them clean.
- d) Clean seam area thoroughly with a vacuum cleaner or soft brush.
- e) To determine the correct temperature setting on your heat welding gun and the correct pace, practice on a piece of scrap flooring until you are comfortable.
- f) Cut a sufficient amount of welding thread to seal approximately half of the seam length.
- g) Fasten a 5/32" (4 mm) nozzle to the tip of the heat welding gun.
- h) Position excess thread so it will not interfere with the application. Insert welding thread approximately 3" (7.6 cm) out through the hole in the welding nozzle. Hold the extended thread and immediately begin sealing the seam. The proper angle for heat welding is achieved when the tip of the welding nozzle is parallel to the flooring and not tilted to the right or left side of the seam.
- i) **IMPORTANT:** Do not touch the nozzle or barrel of welding gun as it is very hot and a burn may result.
- j) Pull the heat gun towards you, allowing the welding thread to feed through the nozzle. Approximately 2/3 to 1/2 of the welding rod thickness will bond in the seam. The excess will be trimmed off when cooled. Moving at too fast a pace will result in poor adhesion of the weld to the seam. Too slow a pace will melt the weld rod and can lead to difficulties in skiving/trimming afterwards. A slight melting (small bead) of the thread on each side of the seam indicates the proper angle and speed.
- k) Continue welding the seam up to the end of the precut thread.
- l) Use the trim knife and trim off approximately 3" (7.6 cm) at the end of the heat welded thread flush with the flooring surface. This will allow for an easy overlap where the second half of the weld is fused to the remaining seam length.
- m) Cut additional rod to complete the remaining length. Start at the wall and work toward the center. Overlap approximately 3" (7.6 cm) where second length of weld joins the first.
- n) Trimming off the welding thread is accomplished in two steps. The first step will remove most of the excess. The second step is the final trim.
- o) Attach the trim plate to the quarter moon trim knife or Mozart and remove 2/3 of the heat welded thread while the rod is still warm.
- p) Use the quarter moon trim knife (without trim plate) or Mozart to remove the remaining welded thread protruding above the surface of the flooring at the seam once the rod has fully cooled. Apply moderate and continuous steady pressure while trimming the thread.

- q) **IMPORTANT:** Inspect the seam after final trim. Re-trim any high areas carefully to avoid any damage to damage the flooring. Any spots where welded thread shows evidence of an incomplete seal, the seam should be re-welded.

4 LINE PAINTING

- a) Do not attempt to paint the game lines until the flooring has been installed for at least 24 hours. Please follow Gen-U-Line 3000 series manufacturer's guidelines for product application.

DISCLAIMER

These instructions conform to commonly accepted installation techniques and practices in use with Mondo floor coverings. However, Mondo will not accept any liability whatsoever for any incorrect implementation of these instructions nor for any failure of equipment, paint & primers, leveling compounds, adhesives or other products not manufactured by Mondo and that are referenced in these instructions, nor for any adverse handling, climatic or environmental conditions that may affect such installation.

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WARNING: Should you have any concerns or be unsure about subfloor conditions or installation procedures, please call our Technical Department.

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