

OUTDOOR INSTALLATION INSTRUCTIONS

SPORTFLEX M, SUPER X, AND MONDOTRACK SURFACES

1 Receiving and Inspecting Goods

- 1.1 Immediately upon receiving goods, inspect all packages in the presence of the carrier's representative to make sure that the quantity of packages is correct, that packages are free of damage, and that labels match the Mondo commercial invoice and the packing list when available.
- 1.2 In the event of any exceptions to the quantity, condition, and content of the packages, place a note on the carrier's Transport Document (B/L, CMR, AWB), and notify Mondo in writing within 72 (seventy-two) hours.
- 1.3 **IMPORTANT** - If Mondo is contractually responsible for the transport of the goods, Mondo accepts no liability for any shortage or mismatch of products, and for any damage to the products arising from apparent external damage to the packages, unless the problem was duly noted on the carrier's Transport Document and notified to Mondo in writing within 72 (seventy-two) hours of receipt of the shipment.

2 Storage

- 2.1 Product shall be stored in the original crates and/or on the original skids provided by Mondo.
- 2.2 The storage area shall be enclosed, clean, dry, well ventilated, and protected from direct sunlight, rain and the weather.
- 2.3 Unless otherwise specified on the product label, all products supplied by Mondo shall be stored at temperatures ranging between 41°F and 104°F (+5°C and +40°C).
- 2.4 Rolls must always be stored vertically on a flat surface and must never be stacked.
- 2.5 Packs must always be stored horizontally on a flat surface and must never be stacked.
- 2.6 Storage periods exceeding 6 (six) months as of the good invoice date, as well as storage in inappropriate environmental conditions and storage in incorrect position, might cause permanent damage and deformation of the products.
- 2.7 **IMPORTANT** - Mondo accepts no liability for damage and defects of products stored for periods exceeding 6 (six) months as of their invoice date and/or in inappropriate environmental conditions and/or in wrong positions.

3 Concrete Subfloor Inspection

- 3.1 Concrete subfloors must be magnesium trowel finished and be homogeneous, smooth, hard, sound, and have an open/absorptive surface.
- 3.2 Shiny, slick, non-porous or conversely, over-porous, dusting concrete subfloors are not acceptable, and will require additional preparation.
- 3.3 Subfloors must be level. There shall be no depressions or high spots beneath a 10' straightedge exceeding 1/8". Depressions or high spots beneath a 4' straightedge shall not exceed 1/16".
- 3.4 Slopes and gradients of the subfloor shall meet the requirements of the relevant Sport Federation(s).
- 3.5 When the subfloor is completely covered by water and allowed to drain for 20 minutes, there shall be no residual water standing on the subfloor.
- 3.6 Concrete subfloors shall be free of surface imperfections, cracks, areas of cohesive failure.
- 3.7 Concrete subfloors shall be clean and free of cement or plaster crusting, paint, wax, dust, mud, oil, sealers, grease, curing agents, surface hardeners, solvents, asphalt, old adhesives and any other contaminants that could inhibit bond strength.
- 3.8 Concrete subfloors shall always be installed over a minimum 0.3mm (12mil) polyethylene moisture barrier membrane with joints overlapping by at least 6".
- 3.9 Subfloors must be equipped with all pieces of in-ground equipment eventually required, such

as sleeves, plinths, brackets, hooks, etc., properly embedded in subfloor in accordance with the manufacturer's instructions.

- 3.10 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by faulty design, construction, or performance of the support/underlying/adjacent structures, and by moisture or alkali migration through concrete subfloors.

4 Concrete Subfloor Preparation

- 4.1 Completely remove weak or poorly bonded layers e.g., cement or plaster crusting, old adhesive, levelling compound residues or old surface finishes and paint residues, etc.
- 4.2 All contaminants must be removed via mechanical abatement such as power washing, sanding, wet grinding, scarifying or shot-blasting. Never use chemical abatement methods.
- 4.3 Areas affected by localized cohesive failure, or contaminated by oil, grease or other chemicals that penetrated deep into the concrete, must be remedied by cutting out the slab to full depth and replacing with new concrete at the correct elevation. If the moisture barrier membrane is damaged during the cut and replace operation, a new moisture barrier membrane shall be installed.
- 4.4 Assuring that cracks are properly treated is essential to restore the continuity of the subfloor and to allow the correct installation of the track surface. However, any further setting of the subfloor may cause further movement of existing cracks, or new cracks and fissures that may show through the newly applied track surface.
- 4.5 Open shrinkage cracks and construction joints with a diamond blade, clean, coat sidewalls and bottom of cavity with a Topical Moisture Reduction Barrier (TMRB) approved by Mondo (Aquafin-SG2), applied in accordance with the manufacturer's instructions, and fill with a polyurethane based product as approved by Mondo Technical Department, applied according to the manufacturer's instructions.
- 4.6 Clean saw-cut crack-control joints, coat sidewalls and bottom of cavity with a Topical Moisture Reduction Barrier (TMRB) approved by Mondo (Aquafin SG-2), applied in accordance with the manufacturer's instructions, and fill with a polyurethane based product as approved by Mondo Technical Department, applied according to the manufacturer's instructions.
- 4.7 **IMPORTANT** - Expansion joints are typically subject to continuous movement. The best treatment for these joints is to cut the track surface on either side of the joint and to install a proper transition strip molding. First coat sidewalls and bottom of cavity with a Topical Moisture Reduction Barrier (TMRB) approved by Mondo (Aquafin-SG2), applied in accordance with the manufacturer's instructions.
- 4.8 High spots can be remedied through grinding.
- 4.9 Shiny, slick, non-porous concrete, shall be subject to a light to medium shot-blasting.
- 4.10 Concrete slabs that are loose, sandy and scaly or have a white powdery surface must be scarified or shot-blasted to remove affected material.
- 4.11 **IMPORTANT** - Seal all concrete slabs with a Topical Moisture Reduction Barrier (TMRB) approved by Mondo (Aquafin-SG2) with sand broadcast, applied in accordance with the manufacturer's instructions. This is essential in order to protect the exposed concrete from infiltration of surface water, and to prevent moisture vapors emission and/or alkali migration.
- 4.12 **IMPORTANT** - Mondo accepts no liability for product damage caused in whole or in part by the use of TMRBs that are not approved by Mondo, or that were used after the expiration date.
- 4.13 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by moisture or alkali migration through the subfloors.
- 4.14 It is never recommended to install outdoor sport floor on a Mondo Everlay waterproofing and stabilizing membrane dry-laid on the subfloor.
- 4.15 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by installation of outdoor sport floors on a Mondo Everlay waterproofing and stabilizing membrane dry-laid on the subfloor.
- 4.16 Level shallow depressions and any grooved surface resulting from grinding using an epoxy-

polyurethane adhesive approved by Mondo (Mondo EPU 200 or PU100), applied in accordance with the manufacturer's instructions. Always check the expiration date. The depth of the leveling layer must be limited to 1/4" or less. Levelled areas must be thoroughly sanded prior to the installation of the synthetic surface. No leveling products other than epoxy-polyurethane adhesive approved by Mondo shall be used as a leveling compound.

- 4.17 **IMPORTANT** - Mondo accepts no liability for product damage caused in whole or in part by the use of adhesives that are not approved by Mondo, or that were used after the expiration date.

5 Asphalt Subfloor Preparation

- 5.1 Completely remove weak or poorly bonded layers e.g., cement or plaster crusting, old adhesive, levelling compound residues or old surface finishes and paint residues, etc.
- 5.2 All contaminants must be removed via mechanical abatement such as power washing, sanding, wet grinding, scarifying or shot-blasting. The degree of aggressivity required will vary with the type and depth of penetration of the compound on the surface. Never use chemical abatement methods as residual chemicals on or penetrating the surface of the base can lead to failures.
- 5.3 Areas of 1 square inch or more showing excess of bitumen shall be removed. The resulting cavities shall be filled with an epoxy-polyurethane adhesive approved by Mondo (EPU 200 or PU 100), applied in accordance with the manufacturer's instructions.
- 5.4 High spots and low spots, sections that became loose and broken because of localized cohesive failure, or mixed with dirt or mud, or showing excess of bitumen, or contaminated by oil spills that penetrated deep into the asphalt, shall be remedied by cutting out the top course to full depth - or to a minimum depth of 1" and replacing with new hot mixture at the correct elevation.
- 5.5 High spots and low spots can also be remedied using infrared asphalt heaters that allow continuous, uniform re-heating of the asphalt to the same temperature that new asphalt is manufactured at the plant. The softened asphalt can be scarified to mix in fresh hot mixture, or to remove and dispose the excess.
- 5.6 Minor high spots can also be remedied through profile milling. Profile milling equipment is typically used to provide roughened texture to an existing asphalt pavement.
- 5.7 Additional finish rolling of asphalt in warm weather, when pavement temperature is equal to or above 185°F (85°C), can be performed to remedy minor profile deficiencies and to remove tire marks and roller marks. Additional finish rolling shall be immediately interrupted in the event of over-compaction.
- 5.8 Areas affected by cracks and fissures generated by instability of the subbase shall be cut out to the full depth of the unstable material and replaced.
- 5.9 Shallow depressions and any grooved surface resulting from profile milling can be levelled with an epoxy-polyurethane adhesive approved by Mondo (Mondo EPU 200 or PU 100) applied in accordance with the manufacturer's instructions. Always check the expiration date. The depth of the leveling layer must be limited to 1/4" or less. Levelled areas must be thoroughly sanded prior to the installation of the synthetic surface. No leveling products other than epoxy-polyurethane adhesive approved by Mondo shall be used as a leveling compound.
- 5.10 Mondo accepts no liability for product damage caused in whole or in part by the use of adhesives that are not approved by Mondo, or that were used after the expiration date.
- 5.11 **IMPORTANT** - No open flames shall be applied to soften the asphalt since open flames would burn bitumen and reduce the internal cohesion of the mixture.
- 5.12 **IMPORTANT** - No filling of low spots with sand mixes shall be allowed. Sand mixes lack sufficient internal cohesion.
- 5.13 **IMPORTANT** - No filling of low spots with acrylic compounds shall be allowed.
- 5.14 **IMPORTANT** - No filling of low spots with cement-based compounds shall be allowed.
- 5.15 **IMPORTANT** - No tar emulsions shall be applied to the surface. Nor shall any other type at asphalt or tar leveling or sealing product (hot or cold) be coated on the surface.
- 5.16 **IMPORTANT** - No asphalt milling shall be performed to remedy profile deficiencies since the

texture resulting from milling is too rough to be leveled using Mondo's adhesive as a leveling compound.

- 5.17 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by incorrect or insufficient subfloor preparation.

6 Environmental and Site Conditions

- 6.1 The installation area shall be clean and dry.
- 6.2 Installation and line marking shall commence and continue only if the weather is perfectly dry and if the minimum temperature at any point in a 24 hour cycle is of 50°F (10°C).
- 6.3 Installation on concrete subfloors must be performed with decreasing temperatures.
- 6.4 Never apply lines in windy conditions, otherwise overspray will occur.
- 6.5 Concrete slabs shall cure for minimum 28 days before the synthetic surface is applied.
- 6.6 Asphalt pavements shall oxidize for minimum 28 days before the synthetic surface is applied.
- 6.7 Materials must be stored in the installation area for at least 24 (twenty-four) hours before laying commences.
- 6.8 Prohibit traffic and the execution of any activity that might bring dust or other contaminants into the installation area.
- 6.9 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by installation in inappropriate environmental conditions.

7 Installation Procedure

- 7.1 **IMPORTANT** - Installation of outdoor running tracks shall only be performed by Mondo Certified Track Installers.
- 7.2 Prior to cutting, trimming, gluing, installing or applying the products, verify that products are free of apparent damage or defects.
- 7.3 In the event of any exceptions to the condition of the products, notify Mondo in writing within 10 (ten) days of discovery. In such event, please wait for the instructions of Mondo before proceeding with the installation.
- 7.4 **IMPORTANT** - Mondo accepts no liability for any apparent damage or defects of the products unless duly notified to Mondo in writing within 10 (ten) days of discovery, and prior to the execution any cutting, trimming, gluing, installation, application, combination or any other handling, manipulation, or intervention on the products.
- 7.5 When removing the rolls placed vertically on the skids, always use suitable tilting trolleys. Never tip the rolls on the ground by pivoting on the base of the roll, as this may cause permanent deformation of the selvedge.
- 7.6 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by incorrect handling inside or outside the installation area.
- 7.7 Track surfaces must be dry-laid and cut to fit prior to any adhesion. Unroll material in the same direction and follow the numbered roll sequence. Overlap long seams by approximately 1/8"; head seams should be staggered and overlapped by a minimum of 6".
- 7.8 To ensure proper acclimatization of the materials, dry-lay the track surface a minimum of 60 minutes before starting the installation.
- 7.9 Long seams do not need any trimming, unless you need to adjust the width of the roll, or the selvages of the rolls are damaged.
- 7.10 **IMPORTANT** - In indoor and outdoor track projects, rolls can never be narrower than the nominal width; otherwise, the lane lines will not cover all long seams. To avoid this issue and taking into account that one selvedge of the rolls placed vertically on the skids might suffer damage during transport and handling, and that in cold installation temperatures the material has a tendency to shrink, the nominal width of our Sportflex M, Super X, and Mondotrack products is always increased by a minimum of 1/4" during production. In cold temperature conditions, and in the absence of damage to the selvedge of the rolls, you shall trim/rectify long seams every 4th lane/row of rolls. This will suffice to guarantee that all long seams fall

under a 2" wide lane line. In warm conditions, or if the selvedge of the rolls is damaged, you shall trim/rectify long seams as often as required to make a good long seam, and/or to guarantee that all long seams will fall under a lane line.

- 7.11 **IMPORTANT** - The presence of permanent deformations caused by improper storage or handling may require total or partial replacement of the products or additional overlapping and trimming at the customer or installer's charge, as the case might be.
- 7.12 Install the floor using only epoxy-polyurethane adhesives approved by Mondo (Mondo EPU 200 or PU 100), applied in accordance with the manufacturer's instructions. Always check the expiration date. For track surfaces equipped with a texturized backing, we recommend 80/100 SF/unit depending on type of subfloor. Those indications are however approximate and must be checked on site.
- 7.13 **IMPORTANT** - Mondo accepts no liability for product damage caused in whole or in part by the use of adhesives that are not approved by Mondo, or that were used after the expiration date.
- 7.14 When starting the installation of the first row of material, roll back the material starting at both ends of the rolls, to approximately the middle of the roll's length.
- 7.15 Unroll the material into the fresh adhesive and press carefully the surface of the material with a smooth trowel.
- 7.16 To make a head seam trim the first edge of the head seam with the assistance of a good straightedge; then cut the second edge leaving a 3/16" overlap to make a tight compression seam. Cuts must be slightly beveled to guarantee perfect head seams.
- 7.17 Create a 45 degrees adhesive bevel against the head seam.
- 7.18 Press carefully together the edges of the seam with a smooth trowel.
- 7.19 A little amount of adhesive will seep through the head seam. This is guarantee that the appropriate amount of adhesive has been installed along the seam, and the seam has been glued properly.
- 7.20 Load the perimeter and all seams with flat concrete bricks.
- 7.21 **IMPORTANT** - Lack of weight on the seams while the adhesive is setting can result in peaking.
- 7.22 When starting the installation of the second row of material, proceed as described in item 8.15.
- 7.23 When applying adhesive, lift the edge of the adjacent row of material and apply adhesive underneath it all the way back to the adhesive line.
- 7.24 Create a 45 degrees adhesive bevel against the long seam.
- 7.25 After applying the adhesive, unroll the material into the fresh adhesive taking care to overlap the long seams by approximately 1/8" to make a tight compression seam.
- 7.26 A little amount of adhesive shall always ooze through the long seams. This is guarantee that the appropriate amount of adhesive has been installed along the seam, and the seam has been glued properly.
- 7.27 At the end of the day, stop the application of adhesive 6" minimum from the edge of head seams, and 4" from the edge of long seams. When continuing the next day, make sure to get adhesive all the way back to the adhesive line from the day before.
- 7.28 Immediately interrupt the installation and notify Mondo Technical Department if you notice any asphalt bubble under the installed track surface. Asphalt bubbles are caused by loss of cohesive strength of the asphaltic concrete. Cohesive failure of asphaltic concrete might be caused by localized contamination by hydraulic or motor oil or other chemicals, or by localized lack of stone aggregate, but might also be caused by a broader and more important problem such as insufficient or excess compaction of the pavement, inadequate bitumen type or content, inappropriate stone size, shape, gradation or composition, wrong temperatures during manufacturing, placement, or compaction of the asphaltic concrete, etc. Depending from the nature and extent of the problem, more and larger asphalt bubbles might develop at any time in the future.
- 7.29 **IMPORTANT** - Mondo accepts no liability for product damage caused in whole or in part by cohesive failure of the asphalt base.

7.30 Asphalt bubbles shall be exposed for visual inspection and testing by the Customer. Peel off the track surface starting at the closest head seam. Mechanically remove the asphalt that might be attached to the backing of the synthetic. At completion of the inspection replace the defective asphalt with Mondo 2-component polyurethane adhesive and glue back the synthetic. This procedure will not guarantee a permanent remediation of the problem unless the asphalt defect was strictly localized, and all defective asphalt was removed and replaced with Mondo 2-component polyurethane adhesive.

7.31 Air pockets might develop between the track surface and the pavement at any time during the installation and for 6 to 12 months after completion of the installation. They are typically caused by local contamination of the pavement by dust, loose dirt or debris. Perform a small cut in the track surface, remove any debris and/or moisture, inject the correct quantity of Mondo 2-component polyurethane adhesive, massage the area to fully remove air, cover with bricks until adhesive is dry.

8 Game Lines Application

8.1 **IMPORTANT** - Line marking of outdoor running tracks shall only be performed by Mondo Certified Track Line Markers.

8.2 Game lines shall be painted with paint approved by Mondo (H21 or GEN-U-LINE 3900 Series) applied in accordance with the manufacturer's instructions. Always check the expiration date.

8.3 **IMPORTANT** - Mondo accepts no liability for product damage caused in whole or in part by the use of paints that are not approved by Mondo, or that were used after the expiration date.

8.4 Mark off the floor in accordance with the rules of World Athletics, NCAA, or NFHS.

8.5 Apply paint with a suitable line-marking machine equipped with a flat spray nozzle and/or with side disks.

8.6 Do not apply masking tape on the side of the lines.

8.7 Do not apply paint with rollers or paint brushes.

8.8 No foot traffic shall be allowed on the material for a period of 24 hours after the installation.

8.9 Newly installed floors must be protected from traffic and pollution caused by other construction activities. If necessary, place protection sheets or planks.

8.10 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by other construction activities.

8.11 **IMPORTANT** - Mondo accepts no liability for product damage caused, totally or partially, by use of improper or non-authorized installation or line marking procedures.

8.12 **IMPORTANT** - Storage periods exceeding 6 (six) months as of the invoice date; environmental conditions during storage, installation, line marking or operation other than those specified by Mondo; the use of storage, installation, line marking or maintenance procedures not approved by Mondo; the use of adhesives, paints, detergents or other chemicals not approved by Mondo; the installation or line marking of outdoor running tracks by installers or line markers not specifically certified by Mondo; the use of the floor for purposes other than the sport activities for which the track surface is intended; the execution of technical interventions without prior authorization by Mondo, will immediately void the Mondo warranty.