

INSTALLATION INSTRUCTIONS - CS 5.28

Indoor Sport

WOODEN SPORT FLOORINGS ZETASYSTEM

STORAGE AND INSTALLATION MANUAL



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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.

IMPORTANT

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| 1.3 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. |
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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 ambient temperature consistently between +15 °C and +25 °C, with air humidity consistently between 45% and 60%
- 2.4 Rolls must always be stored vertically on a flat surface, and must never be stacked.
- 2.5 Packages 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.

IMPORTANT

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| 2.7 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. |
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3 Subfloor Inspection

- 3.1 Concrete subfloors must be homogeneous, smooth, hard, and solid.
- 3.2 Subfloors must be level. There shall be no depressions or high spots beneath a 4m straightedge exceeding 4mm. Depressions or high spots beneath a 1m straightedge shall not exceed 1mm.
- 3.3 Slopes and gradients of the subfloor shall meet the requirements of the relevant Sport Federation(s).
- 3.4 Concrete subfloors shall be free of surface imperfections, cracks, areas of cohesive failure.
- 3.5 Concrete subfloors shall be clean and free of cement or plaster crusting.
- 3.6 Concrete subfloors shall always be installed over a minimum 0,3mm (12mil) polyethylene moisture barrier membrane with joints overlapping by at least 20 cm. The membrane shall be turned up all walls and pillars.

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WARNING

3.7 Moisture content of concrete subfloors, measured with a calcium carbide hygrometer, shall never exceed 2.5%.

3.8 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.

3.9 If a rubber skirting must be installed, walls must consist of plasterboards or of plastered masonry. Dry walls might show a gap of maximum 1 cm between the subfloor and the wall. Walls must be straight, smooth, and free of dimples, crusting and interruptions. Corners must be vertical, closed and at right angles.

IMPORTANT

3.10 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 the subfloors.

4 Subfloor Preparation

4.1 Remove any cement or plaster crusting.

4.2 Depressions must be leveled with suitable cement-based products, applied according to the manufacturer's instructions.

4.3 High spots must be removed through grinding. The grooved surface resulting from grinding shall be levelled with suitable cement-based products, applied according to the manufacturer's instructions.

4.4 Radiant floor heating

The heating system has to be turned on before the installation of any floor covering to allow for conditioning of the screed. This is to make sure that after the first heating, the screed is not damaged by the sudden change of temperature or at least could be repaired before proceeding. The operations to carry out are:

1) Do not turn the system on before 28 days from when the screed was cast.

2) The temperature of the heating fluid should be increased by 5 °C per day up to the maximum service temperature.

3) The maximum temperature has to be kept for at least three days (72 consecutive hours).

4) Reduce temperature of 5°C a day to reach the same temperature of the room.

5) Heating must be turned off 48 hours before starting the smoothing underlayment.

6) In derogation from art. 5.2 of this manual: the ambient temperature during installation must be between 18°C and 30°C.

The heating can be turned on gradually 24 hours after the installation of the floor.

IMPORTANT

4.5 Mondo accepts no liability for product damage caused, totally or partially, by incorrect or insufficient subfloor preparation.

5 Environmental and Site Conditions

5.1 The installation area shall be enclosed, with all windows installed.

5.2 The installation area shall be clean, dry, well ventilated, with constant ambient temperature ranging between +15°C and +25°C and constant relative humidity ranging between 45% and 60%.

5.3 Materials must be stored at the laying temperature in the installation area for at least 10 (ten) days before laying commences.

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- 5.4 Prohibit traffic and the execution of any activity that might bring dust or other contaminants into the installation area.

IMPORTANT

- 5.5 Mondo accepts no liability for product damage caused, totally or partially, by installation in inappropriate environmental conditions.

6 Installation Procedure

- 6.1 Prior to cutting, gluing, installing or applying the products, verify that products are free of apparent damage or defects.
- 6.2 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.

IMPORTANT

- 6.3 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 of any cutting, trimming, gluing, installation, application, combination or any other handling, manipulation or intervention on the products.

- 6.4 Materials must be stored at the laying temperature in the installation area for at least 10 (ten) days before laying commences.

IMPORTANT

- 6.5 Mondo accepts no liability for product damage caused, totally or partially, by incorrect handling inside or outside the installation area.

- 6.6 Place a layer of 0.1mm (4mil) polythene sheeting over the subfloor; overlap seams by a minimum of 20cm, seal seams with adhesive tape.

IMPORTANT

- 6.7 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.

- 6.8 Verify with suitable electronic hygrometer that the moisture content of the phenolic plywood panels does not exceed 12-14%.
- 6.9 Dry-lay one layer of polyurethane foam panels over the polyethylene sheeting, and cut to fit. Place foam panels with the long side parallel to the long side of the pitch. Stagger joints between panels.
- 6.10 Dry-lay one layer of phenolic plywood boards over the foam panels, and cut to fit. Place plywood boards at an angle of approximately 45° with respect to the pitch, ensuring that the end joints of the planks are staggered by at least 1/3 relative to the end joints of the adjacent row.
- 6.11 Leave a gap of 35mm between adjacent boards, and keep a distance of 3 to 4cm from any obstacle (perimeter walls, pillars, steps, etc.) to compensate for any expansion and to guarantee adequate ventilation of the flooring.
- 6.12 Install the tongue-and-groove prefinished wood boards with the long side parallel to the long side of the pitch.
- 6.13 Start the installation by placing one row of single tongue boards along the centerline of the pitch. In these boards preventively apply vinyl glue for wood type Bindan-RS-Express or similar. Immediately after insert the wooden strips provided in kit. This operation in order to obtain the double tongue boards only in the central row. Using the glue above indicated, wait at least 15 minutes before starting the following operations. For these systems Mondo does not supply anymore the double tongue boards.

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- 6.14 Blind-nail the wood boards to the sub-base underneath using ribbed steel U-shaped staples, type 90/30, 30 mm in length (see photo A): drive a staple at a 45-degree angle through the tongue and then conceal it by engaging the groove of the next board. Apply 1 U-shaped staple every 20/25 cm along the long side of the board (tongue side) and 1 centrally positioned U-shaped staple on the short side of the board (tongue side).
- 6.15 Be sure to countersink the staple – drive it slightly below the surface of the wood – to prevent interference in the joint.
- 6.16 Use automatic flooring stapler to speed-up the installation.
- 6.17 Install the threaded aluminum rings for the volleyball posts and screw them to the flooring.
- 6.18 Connect any vented cove wall base to the walls only, to allow for the natural contraction and expansion of the flooring.

7 Game Lines Application

- 7.1 Game lines shall be painted with two-component paint approved by Mondo, such as Mondo P10, Bona SuperSport Line Paint, Chimiver Ecostar Line Color, or similar, applied in accordance with the manufacturer's instructions. Always check the expiration date printed on the package.

IMPORTANT

- 7.2 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.
- 7.3 Mark off the floor in accordance with the rules of the relevant Sport Federation(s) and apply masking tape on both sides of the lines.
- 7.4 Clean the surface between the tapes and apply paint with a 50mm wide sponge roller.
- 7.5 Remove masking tape immediately after the paint has been applied, and has become "tacky" to the touch. The tape will be difficult to remove if paint is allowed to fully cure and ragged edges will likely occur. When removing tape pull it up back against the game line to prevent bleeding/tailing.
- 7.6 Subsequently, if required, apply contrasting color paint on the boundary lines, centre circle and restricted areas in accordance to FIBA regulations.
- 7.7 Only use polyacrylic paint approved by Mondo, such as Alcea Uretal, Chimiver Ecostar 2K Colorata, Bona SuperSport, or similar, applied in accordance with the manufacturer's instructions. Always check the expiration date.
- 7.8 Apply masking tape along the perimeter of the contrasting color areas.
- 7.9 Clean the surface to be painted, and apply paint with a 150-200mm wide sponge roller.
- 7.10 Remove masking tape immediately after the paint has been applied.
- 7.11 No foot traffic shall be allowed on the material for a period of 24 hours after the installation.
- 7.12 Newly installed floors must be protected from traffic and pollution caused by other construction activities. If necessary place protection sheets or planks.

IMPORTANT

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

IMPORTANT

- 7.14 Mondo accepts no liability for product damage caused, totally or partially, by use of improper on non-authorized installation procedures.

8 Operating Environmental Conditions and Maintenance Procedures

- 8.1 Wooden sports floorings, as well as any sports flooring system that incorporates wooden parts, require unique environmental conditions and maintenance procedures.

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- 8.2 The facility shall be enclosed, with all windows installed.
- 8.3 The facility shall be clean, dry, well ventilated, with ambient temperature ranging between +15°C and +25°C, and relative humidity ranging between 45% and 60%.
- 8.4 Avoid sudden changes in temperature (for example between night and day) exceeding 10°C.
- 8.5 Protect the sport flooring from direct sunlight. Use curtains or UV-resistant film on large glass doors and windows.
- 8.6 Maintain the above-mentioned environmental conditions when the facility is not in use.

IMPORTANT

- 8.7 It is the Owner's responsibility to install the protection, ventilation and air conditioning systems eventually required to maintain the above-mentioned environmental conditions, and to install a thermometer and a hygrometer to continuously monitor and record temperature and relative humidity.

- 8.8 Spot clean the wooden floor using a mop moistened with ethyl alcohol. Remove stubborn stains with a cotton cloth moistened with ethyl alcohol.

WARNING

- 8.9 The ordinary maintenance of wooden floor shall never be performed using water or water-based solutions.

IMPORTANT

- 8.10 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 use of the floor for purposes other than the sport activities for which the flooring is intended; flooding or infiltration of water and/or liquids of any kind; the execution of technical interventions without prior authorization by Mondo, will immediately void the Mondo warranty.

- 8.11 Please refer to the Operation and Maintenance Manual CS 7.16-2 for more details.

Photo A

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