# Reflex Multisport Floor - Technical Specification and Installation Guidelines

**System consisting:**
21mm Board; 4mm hardwood top layer consisting of three rows of staves
Middle layer of spruce core incorporating tongue and groove; plywood base layer.
End matched and tongue and grooved.
Plywood header joints for additional strength.
PEFC certified Vac Vac treated softwood battens with resilient foam strip OR
PEFC certified Vac Vac treated softwood battens used with Reflex Sports Cradles; precision injection moulded ABS Plastic incorporating closed cell resilient foam impact pad affixed to underside. To be used with Reflex packers; glue free ABS plastic shape fit packers.

**Surface Treatment**
Pre-lacquered with UV-cured polyurethane/acrylic based lacquer (satin approx. 30° Gardner). The lacquer is free from solvents and formaldehyde. It is durable and preserves the woods natural character.
Court markings can be painted directly on the treated surface in accordance with the manufacturer's instructions. The line paint must be epoxy or polyurethane.
To increase resistance to wear and maintain slip resistance, we recommend that the floor be finished with additional coats of lacquer. Two coats of lacquer should be applied.
This process should be done after line marking if appropriate.

**Tests**
Tested and approved in accordance with EN14904 A4 Category.

**Product specification**
Board length – 2525mm
Width – 188mm
m2/board – 0.475m2
m2/pack – 1.90m2
m2/pallet – 68.4m2
Boards/Pack – 4
Packs/Pallet – 36
Weight/Pack – 26kg
Weight/Pallet – 936kg

**Moisture Content**
Moisture content when delivered: 7±2% (unopened packs)

**Packaging**
Cardboard carton with Protective PE sheeting.

**General workmanship**
Keep boards dry and in packaging before installation, do not open packaging until you are ready to begin installation. Protect from dirt, stains and damage until practical completion using suitable coverings and boards laid as the work proceeds.

**Subfloor Specifications**
To conform to BS8024 Part 1 1987 and should not deviate more than ±3mm under a 3m straight edge, having a suitable damp proof membrane underneath in accordance with CP102.

**Moisture content of base**
Where flooring is to be laid on a new concrete or screed base;
Ensure that drying aids have been turned off for not less than 4 days, then;
Test for moisture content using an accurately calibrated hygrometer in accordance with BS8201, appendix A.
Concrete should have cured for a minimum of 60 days.
Moisture content of floors not to be more than 5%
Moisture content of walls not to be more than 8%
Take readings in all corners, along edges and at various points over the area being tested.
Do not lay flooring until all readings show 65% relative humidity or less.

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**Fixing**
Hardwood battens are secret nailed using 50mm Portanails at right angles to each softwood support batten. Battens laid at 361mm centres.
Heading joints are glued and tightly butted and positioned centrally over battens. Header joints to be positioned in a staggered pattern across the floor.
Fix each board securely to give a flat true surface; free from undulations, hammer marks, scratches and protruding fastenings.

**Environment**
Do not start work specified before the building is weather-tight, wet trades have finished their work and the building is well dried out. Before, during and after laying, temperature and humidity must be maintained at levels approximating to those which will prevail after building is occupied. Ideal range of relative humidity to be 40-65% RH.

**Heating / Air Conditioning**
Agree arrangement for operating the heating installation up to the date of practical completion of the works to ensure that excessive moisture movement of the flooring does not take place.

**Vapour check/Moisture Membrane**
To be installed immediately below battens.
Reflex Vapourstop 1200 gauge polythene (or suitable specified DPM) to be lapped by 150mm, taped and turned up at perimeter walls.
Ensure membrane is clean, dry and free from punctures and tears before laying flooring.

**Underfloor Heating**
Multisport Floor is suitable for installation on underfloor heating: Please see 'Reflex Technical - Underfloor Heating' datasheet.

**Maintenance**
For more information, please see the Reflex Cleaning & Maintenance datasheet.

**Expansion Gap**
0.75mm per linear metre across the width of the room. i.e. Room is 15mtrs wide – 15 x 0.75mm = 11.25mm expansion gap around perimeter.
(A minimum of 10mm expansion gap around perimeter of the room is necessary).
No expansion is required in the body of the floor.
Expansion gaps can be covered by using Reflex Sports Profiles. Please contact Reflex for details: 0800 345 7085.

**Installation**

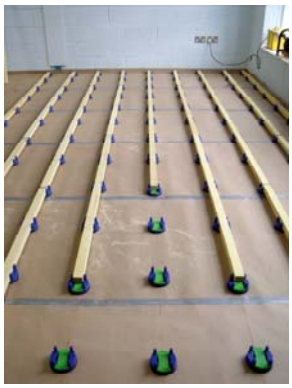
**Step 1**

Moisture membrane to be installed. Lapped, taped and turned up at perimeter walls.

If Reflex Sports Cradles are to be used, they should be placed at:

- 450mm centres along the batten on 36mm battens
- 600mm centres along the batten on 46mm battens

Battens should be laid at 361mm centres.



If Sportsbat battens are to be used, they should be laid at 361mm centres.
Note; To make the floor more rigid at doorways, you should increase the number of battens in these areas (as shown below).

Note: If underfloor heating is being utilised, bear in mind that notching may be required on the battens (as shown below). Please refer to the Reflex Technical datasheet – Underfloor Heating, for more information.

**Step 2**
Boards should be laid parallel to the longest wall in the room. Start with groove side facing out toward the room. The use of shims against the walls on long and short perimeter edges of the boards is recommended in order to maintain the expansion gap. (expansion gap shown below)

Start with the first board and secret nail to each batten at a 45° angle using 50mm Porta or Primatech T nails.

**Step 3**
Put a bead of PVA glue along the header joint of the first board. Hold the next board against the short end of the first board and tap the 2nd board into the first. (Use a knocking block and mallet so as not to damage the end of the board). Secret nail boards to battens at a 45° angle. Continue in this manner for the entire first row.
Cut end board in first row to correct length and start second row with left-over piece (if possible).
End joints must be staggered across the room and supported on top of a batten.

**Step 4**
Continue in this manner until the last row.
Please note that expansion gaps should be maintained around any *fixed* objects in the room.
Preparing last row next to ending wall: Determine the correct board width and cut the boards as required, then tap in to the previous row. If there is not enough room to use the portanailer on this last row, face fix/pin to the battens at the closest point to the perimeter so that it is hidden by the expansion gap trim/profile at a later stage. Remember to support the board on a batten and to allow for required expansion gap.

**Project completion**
Remove expansion gap shims and install appropriate profiles (skirtings/scotias).
Note: Skirtings/Scotias must be attached to the wall and not the flooring.
Court Lines – Contact Reflex for more information on line marking.
As per the 'Surface Treatment' section above, Reflex recommend 2 additional coats of lacquer (after sports line markings if appropriate).
Any lacquer should be compatible with the factory finished lacquer present on the boards (BonaKemi).
Reflex only recommend you use Bona lacquers and maintenance products.
Please contact Reflex for information on access lids (if necessary) for equipment posts, electrical access points etc.

**Care and Maintenance**
Please refer to the Reflex Cleaning and Maintenance datasheet.