



**InstaSport** *high-performance*  
**SPORTS**  
*low profile floor system*

# Low Profile **SPORTS** floor system

**P**art of the InstaGroup, InstaFloor has been producing high performance multi-purpose sports flooring since 1995. These versatile, impact energy absorbing, sub-floor systems are suitable for all indoor sports and leisure applications and, when combined with most proprietary sports surfaces, the finished floor is fully compliant with EN 14904, the current standard for indoor sports flooring.

A low profile system, the InstaFloor sprung sub-floor comprises special resilient rubber strips bonded to plywood. When combined with the Gerflor Sport M Evolution vinyl or the Herculon MF sports floor a Combined-Elastic sports floor is produced; using a 2mm Taraflex surface produces an Area Elastic sports floor. These resilient, high standard, impact energy absorption systems comply with the requirements of EN 14904 as well as the strict criteria stipulated by many sports governing bodies, such as Sports England. The systems are also designed to withstand the loadings from users and equipment as defined in BS 6399: Part 1

## **Applications**

- **New build**
- **Refurbishment/Change of use**
- **Level concrete and timber floors**
- **Sports halls and gymnasias**
- **Multi-use games and play areas**
- **Examination halls**
- **Dance and exercise studios**

InstaFloor has worked closely with proprietary sports floor manufacturers to provide clients with a fully compliant sports floor system backed by a comprehensive technical service.

## **Benefits**

- **Complies with EN 14904**
- **Cost-effective, quick and easy to install**
- **Suitable for all level sub-floor constructions**
- **Low profile system – only 28mm thick (excluding sports floor finish)**
- **Full technical back-up available**



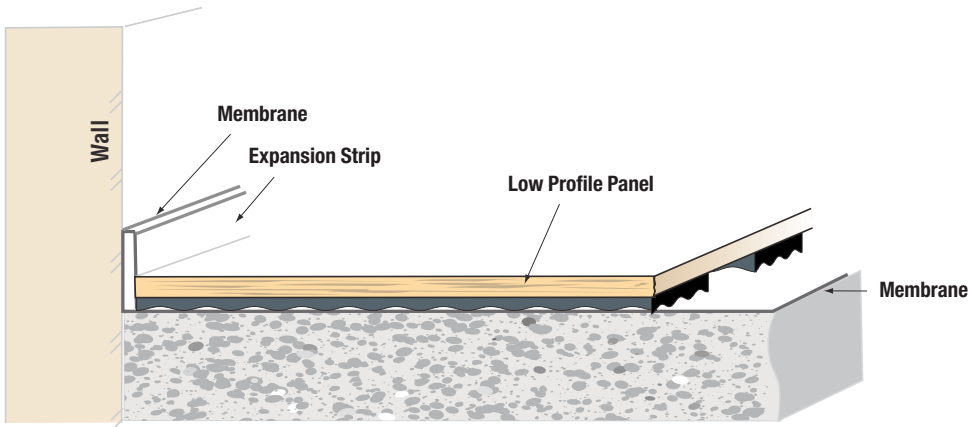
InstaFloor's low profile sports floor panel is impact energy absorbing and suitable for a wide range of sports (e.g. basketball, football, handball, hockey, netball, tennis) as well as non-sporting activities (e.g. use as an exam hall, dance studio or for community activities).

They have been comprehensively tested against British and European Standards and copies of the appropriate certification are available on request.

## **Shock Absorbing**

With the InstaFloor low profile sports floor panel, the combination of plywood boards with resilient rubber strips and proprietary sports surface layer, provides excellent shock absorption properties for multi-use games and play areas.

# Low Profile **SPORTS** FLOOR SYSTEM



Section through low profile sports floor

## COMPONENTS

2400mm x 600mm

28mm thick  
Low Profile Panel

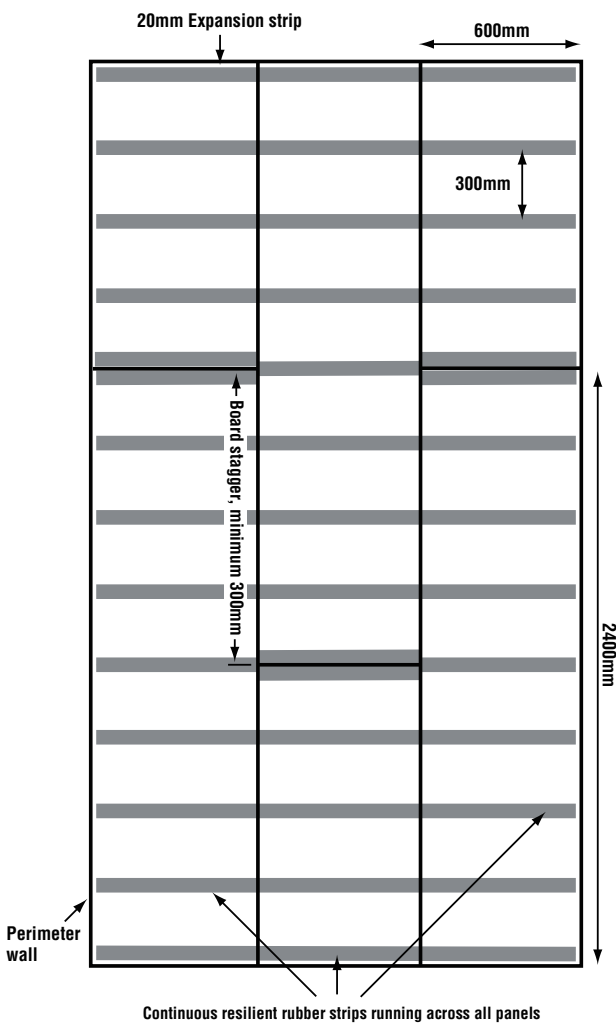
2m x 50mm x 20mm

Expansion Strip

590mm or 900mm x 43mm x 5/10mm

Extra Resilient Rubber Strip  
for Cut Panel Edges

Glue



Typical floor layout

## InstaSport Low Profile System Test Results

LOW PROFILE SYSTEM with:	Gerflor Taraflex Sport M Evolution (7.0mm)	Herculan MF 5+2 (7.0mm)
Plywood Thickness (mm)	18	18
Finished Floor Height (mm)	35	35
<b>TEST RESULTS</b>		
<b>EN 14904 Performance</b>	C4	C3
<b>Shock Absorption (%)</b>	56	51
Requirement of EN 14904 Type C4 (%)	≥ 55 < 75	n/a
Requirement of EN 14904 Type C3 (%)	n/a	≥ 45 < 55
<b>Vertical Deformation (mm)</b>	2.8	2.9
Requirement of EN 14904 Type C4 (mm)	≥ 2.3 < 5.0	n/a
Requirement of EN 14904 Type C3 (mm)	n/a	≥ 1.8 < 5.0
<b>Vertical Ball Behaviour (%)</b>		
Basketball	98	98
Requirement of EN 14904 (%)	≥ 90	≥ 90
<b>Resistance To Rolling Load</b>	no indentation or damage	
Requirement of EN 14904 (1,500 N)	Maximum indentation shall be 0.5mm under a 300mm straight edge and no perceivable damage shall be observed after the test.	

## Installation instructions

The following instructions are issued as an aid to the correct installation procedures. Individual site conditions may necessitate variances to these standard instructions. Such cases should be referred to the InstaFloor Technical Department for approval. All installation and working practices should be in accordance with relevant Codes of Practice, current British Standards and HSE Regulations applicable to the construction industry.

### SITE PREPARATION

- THE LOW PROFILE SYSTEM **MUST** BE INSTALLED ON A **FLAT & SMOOTH** SUB-FLOOR
- IF A SCREED HAS BEEN APPLIED IT MUST BE FULLY CURED BEFORE BEGINNING THE INSTALLATION OF THE LOW PROFILE SYSTEM
- ENSURE THAT ALL MATERIALS ARE UNPACKED AND LEFT IN THE AREA TO BE LAID FOR A MINIMUM 24 HOURS PRIOR TO INSTALLATION. THIS IS TO ALLOW FOR ACCLIMATISATION TO TEMPERATURE AND HUMIDITY LEVELS WHICH SHOULD BE SET AND MAINTAINED TO MATCH FUTURE 'IN-USE' CONDITIONS
- BUILDING TO BE DRY AND WEATHERPROOF
- ALL FLOORING MATERIALS TO BE STORED IN SAFE DRY CONDITIONS
- INSTAFLOOR ADHESIVE SHOULD NOT BE SUBJECTED TO TEMPERATURES OF LESS THAN 5°C
- FLOOR RECEIVING LOW PROFILE SYSTEM MUST BE
  - HARD & DRY
  - FLAT & SMOOTH
  - FREE OF ALL DEBRIS

### REQUIRED TOOLING

- CIRCULAR SAW ● JIGSAW ● HAND SAW
- PENCIL ● UTILITY KNIFE ● TAPE MEASURE
- STRAIGHT EDGE

### TEST CERTIFICATION AVAILABLE

#### STEP 1 DAMP PROOF MEMBRANE (OPTIONAL)

**1** A damp proof membrane is recommended on ground floor slabs and new concrete bases above ground level. (See points to note).

#### STEP 2 PREPARATION

**2** Ensure that the sub floor is fully dry, clean and completely free of any surface water, projecting nibs or loose material.

#### STEP 3 EXPANSION STRIP

**3** Expansion strip, 50mm high and 20mm thick, is laid to the room perimeters.

#### STEP 4 PANEL INSTALLATION

**4** Starting at the furthest point from the entrance, lay panels, with resilient rubber strips to the sub floor, in continuous runs against the far wall up to, but not compressing the expansion strip, thereby maintaining 20mm to the wall.

Continue laying the boards, gluing the tongues, ensuring that there is a 300mm stagger between rows, that there is a resilient rubber strip adjacent to the wall and that the strips run in a continuous straight line across all rows of panels. Do not walk on the boards until the glue is fully cured (24 hours).

#### STEP 5 CUTTING PANELS

**5** At the end of a run where a panel requires cutting to fit, place an appropriate 600mm length of resilient rubber strip on the floor against the expansion strip. Put glue on to the strip and then place the cut panel on top. Ensure that the panel edges are fully supported.

#### STEP 6 MAKING GOOD

**6** Once the plywood boards have been laid and the proprietary sports floor finish has been applied, cut away any surplus expansion strip with a sharp builder's knife. If required, skirting can now be fitted.



## Points to note

**SUB-FLOOR TOLERANCE** The low profile system is designed to be installed on a level sub-floor with a floor tolerance of no more than 3mm over a 2m measured distance (SR1 BS8204-1:2003). For higher tolerances an InstaFloor cradle and batten system should be used.

**MEMBRANE (IF REQUIRED)** A membrane, such as 1200 gauge polythene sheeting, should be installed over all ground floor slabs and new concrete bases above ground level. Joints shall be lapped a minimum of 150mm and should be taped and sealed with waterproof adhesive tape, with edges upturned to the same height as the tongue & grooved overlay boards at all perimeter walls.

**ABNORMAL LOADING** If the low profile system is to be subjected to abnormal loading, it may require additional support. In such cases please refer to the InstaFloor Technical Department for advice.

**SPORTS EQUIPMENT SOCKETS** Due to the type of sub-floor, the use of free-standing equipment is recommended. When it is inevitable that sockets are required, these should be fixed into the concrete base with an extended sleeve to allow for height. The

equipment manufacturer/installer should also be consulted, since accurate location is critical.

**FLOOR COVERINGS** In the case where thin flooring materials, such as PVC, Rubber or Needle Punch Carpet, are to be installed on top of the InstaFloor low profile panel, a careful check should be made prior to installation of these materials, to establish if there are any raised joints which should be sanded to eliminate the possibility of the joint "grinning" through the playing surface. The use of a proprietary flexible smoothing compound is recommended. The flooring manufacturer should be consulted at an early stage in the project. In addition, adhesive manufacturers will also be able to provide advice.

**ADHESIVES** The installing contractor is responsible for ensuring adhesion compatibility between the overlay boards and the specified sports surface. Water dispersion adhesives are not recommended for use with the InstaFloor Sports Floor System.

**UNDERFLOOR HEATING** Can be used in conjunction with InstaFloor sports sub-floor systems. Consult InstaFloor Technical Department.