

### Junckers BluBAT Sports Floor System

D 1.0	General information
D 1.2	Batten system information
<b>D 6.2</b>	<b>Specifier's information</b>
D 6.2.1	Laying instruction

### Components

#### 1 - Boards

- Junckers 22 mm boards for sports floors.
- Wood species/grades: Beech, SylvaKet, Maple and Ash / Champion, Premium and Club Surfaces → **B 2.0**
- Thickness x width x Length: 22 x 129 x 3700 mm

#### 2 - Nails

- 2.2 x 45 mm J-Nails (machine nails)

#### 3 - Blubat system

- Veneered battens 30 x 45, 45 x 45 or 57 x 45 mm, c/c 411.1 or 336.4 mm.  
9 mm continuous foam strip fixed to underside.

#### 4 - Moisture barrier

- Min. 0.20 mm PE membrane.

#### 5 - Distance to wall

- 1.5 mm per running metre across width and 1 mm per running metre along length of the floor, but both min. 30 mm.  
Is also required at fixed points, e.g. columns.

The gap between wall and floor is covered with one of Junckers sports skirtings.

Fig. 2

### General description of floor system

The Junckers Blubat Sports Floor system is based on 22 mm solid boards nailed to a resilient subfloor of one layer of battens - prefabricated. The floor system is an area elastic type of sports floor with high shock absorbency and elasticity suitable in multi-purpose sports halls as well as for Squash. The construction height is 52, 67mm or 79mm.

The sports floor system fully conforms to EN 14904:A3.

Please note that full documentation of a floor system comprises the data in D 1.0, D 1.2, D 6.2 and D 6.2.1.

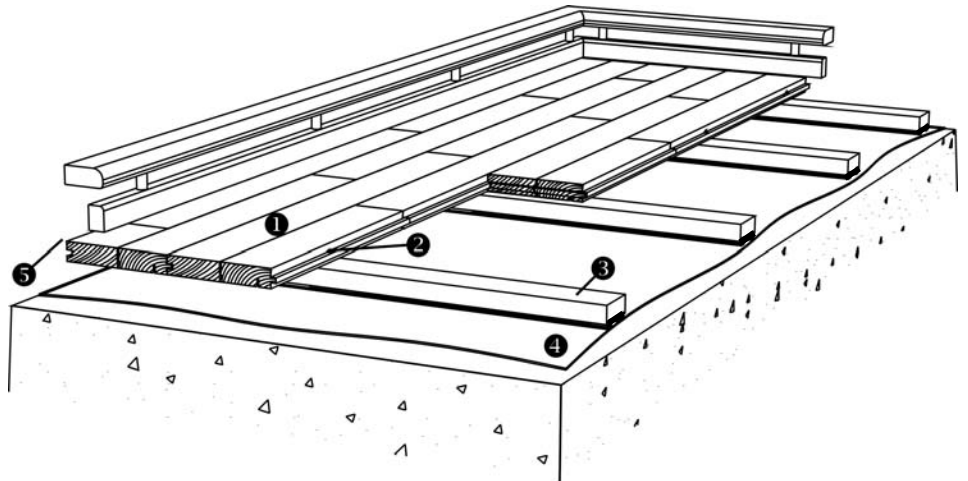


Fig. 3

### System specifications

22 mm solid boards nailed to a substructure of prefabricated battens. Manufactured as a single layer structure of 30 x 45, 45 x 45mm or 57 x 45 mm veneered battens inclusive of a 9 mm continuous foam strip on the underside. The subfloor must be flat, with a maximum deviation of 2 mm under a 1.5 metre straight edge (UK: 3 mm under a 2 m straight edge). The surface must be smooth. Any minor irregularities must be corrected.

### Boards

The boards are nailed to the battens according to a fixed **10-board rule**. The boards are laid in a continuous pattern with well-defined distribution of board header joints from row to row of 2 x the batten distance, i.e. 822.2 mm with the standard c/c 411.1 mm, or 4 x the batten distance, i.e. 1345.6 mm with the reduced c/c 336.4 mm. In that way that all board header joints are supported.

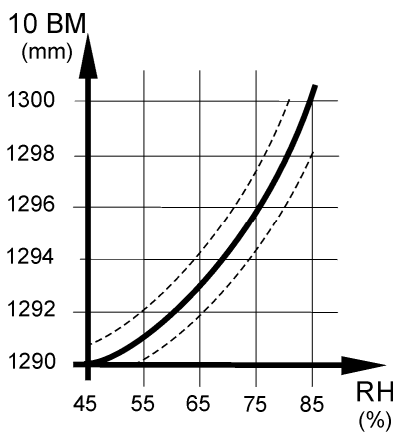


Fig. 4

**Point load-bearing strength**

The Blubat Sports Floor System is tested and approved for below mentioned maximum point loads, in relation to load area and batten distance.

**c/c 336 mm:**  
 Diameter, 25 mm: 4.5 kN (= 450 kg)  
 100x100 mm: 5.5 kN (= 550 kg)

**c/c 411 mm:**  
 Diameter, 25 mm: 4.0 kN (= 400 kg)  
 100x100 mm: 5.0 kN (= 500 kg)

Fig. 5

**10-board rule**

The 10-board rule indicates the measurement across 10 boards when laid and is primarily based on the expected max. relative humidity of the building when in use.

→ C 1.2 - 10-board rule

Fig. 4 illustrates the 10-board measurement in relation to the relative air humidity. E.g. an expected relative humidity of max. 65 % RH normally give a 10-board measurement of approx. 1294 mm. The limit of the 10-board measurement, which also depends upon the floor size, is in fig. 4 shown as dotted lines.

The measurement is achieved by inserting temporary spacers between the boards during the installation process.

In case of doubt please contact Junckers Technical Service.

**Rigidity and load-bearing strength**

The Blubat Sports Floor System is designed to ensure good technical properties in relation to the expected loads in connection with sports activities.

Figure 5 shows the maximum point load-bearing strength at certain load areas and batten distances. In a heavy load situation, e.g. back stop units, stages, retractable seating or tribunes, it may be necessary to decrease batten centres.

Table 2 shows the batten distance in relation to the load classes in ENV 1991-2-1:1995, where the load-bearing strength requirements are complied with and the floor has an acceptable rigidity. The floor system's rigidity in relation to wheel loads is also shown.

For further definition of load classes and types → D 1.0 - Rigidity and bearing strength.

Table of loadings	ENV :1995		Other loads		Explanation of symbols
	Area load	Point load	Wheel load (solid)	Wheel load (air)	
Loading category					<ul style="list-style-type: none"> <li>● Loadings conforming to the requirements of ENV 1991-2-1:1995 and deflection criterion</li> <li>◆ Deflection on wheel load is complied with D 1.0 - table 2</li> </ul>
<b>C4</b> Areas with possible physical activities		● <sup>1</sup>		◆	<b>Remarks</b> 1) Point load area min. 200 x 200 mm
<b>C5</b> Areas susceptible to overcrowding		●			

Table 2

**Moisture and heat insulation**

A moisture barrier is always installed on all concrete subfloors, min. 0.20 mm PE membrane, directly on the concrete. Before the floor is laid the residual moisture in the concrete must not exceed 90 % RH (UK 75 % acc. To BS 8201).

For heat insulation → D 1.2 - Heat insulation

**Bushings**

Bushings must be mounted so that both vertical and horizontal movement of the floor is unimpeded. The internal diameter of the flange must exceed that of the pipe, i.e. the external diameter of the net pole, by minimum 40 mm. At the outermost zones of the floor all flanges are mounted eccentrically towards the centre of the floor in relation to the bush fittings in the concrete, so that the floor can expand freely.

Place extra support Blubat battens at net poles, pipes, etc. Support battens must be resilient.

**Consumption of materials**

**Net consumption for 1000 m<sup>2</sup> Blubat single layer system floor**

Boards: 1000 m<sup>2</sup> + approx. 2 %  
 Machine nails, 2.2 x 45 mm (J-Nails): 20000 pcs. (batten centres 411)  
 25000 pcs. (batten centres 336)  
 Blubat battens: 2500 Rnm. (batten centres 411)  
 3000 Rnm. (batten centres 336)  
 Loose tongues: 67 pcs.  
 Moisture barrier:  
 min. 0.20 mm PE membrane: 1100 m<sup>2</sup> incl. overlaps  
 Junckers Sylvafox header joint adhesive 3 bottles (3 x 0.75 litre)

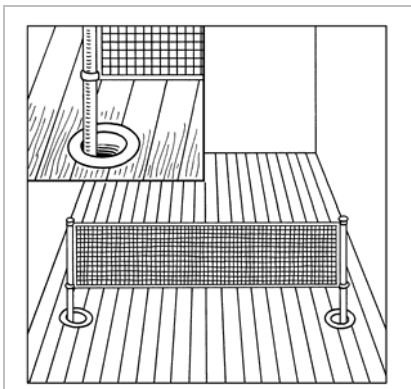


Fig. 6