

Junckers Blubat Sports floor system

D 1.0	General information
D 1.2	Sports floor system
D 6.2	Specifier's information
D 6.2.1	Laying instruction

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 sports floor system fully conforms to EN 14904:A3. The construction height is 53, 67mm or 79mm.

Please note that full documentation of a floor system comprises the data in D 1.0, D 1.2 D 5.2 and D 5.2.1.

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)
- 2.8 x 65 mm lost-head wire nails

3 - Blubat system

- Battens 31 x 45, 45 x 45mm or 57 x 45 mm, c/c 411.1 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.

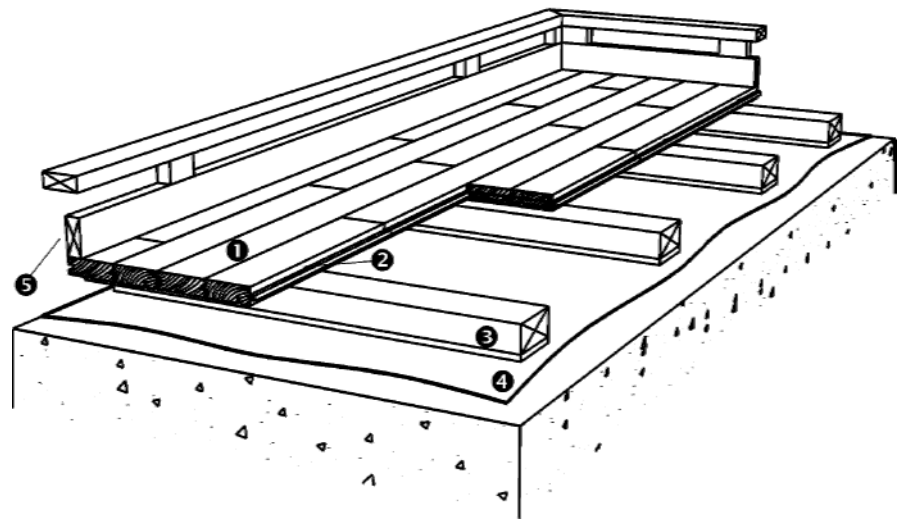


Fig. 3

System specifications

22 mm solid boards nailed to a substructure of prefabricated battens. Manufactured as a single layer structure of 31 x 45, 45 x 45mm or 57 x 45 mm softwood 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 to a uniform pattern with header joints uniformly positioned to an 822 mm or 2 batten stagger across the floor.

Fig. 2

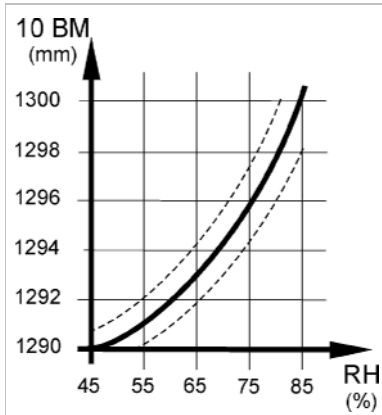


Fig. 4

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

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 types					● Loadings conforming to the requirements of ENV 1991-2-1:1995 and deflection criterion ◆ Deflection on wheel load is complied with D 1.0 - table 2
Loading category					
C4 Areas with possible physical activities	● ¹⁾		◆		Remarks 1) Point load area min. 200 x 200 mm
C5 Areas susceptible to overcrowding	●				

Table 2

Moisture 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 entrained moisture in the concrete must be in balance with the expected maximum humidity in the building, e.g. 65 % RH (UK 75 % acc. To BS 8201).

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 excentrically 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 battens and wooden blocks at net poles, pipes, etc. Support battens must be resilient.

Consumption of materials

Net consumption for 1000 m² single layer system floor

Boards:	1000 m ² + approx. 2 %
Machine nails, 2.2 x 45 mm (J-Nails):	20000 pcs.
BluBat battens:	
31 x 45, 45 x 45mm or 57 x 45 mm:	2500 Rnm.
Moisture barrier:	
min. 0.20 mm PE membrane:	1000 m ² + overlap

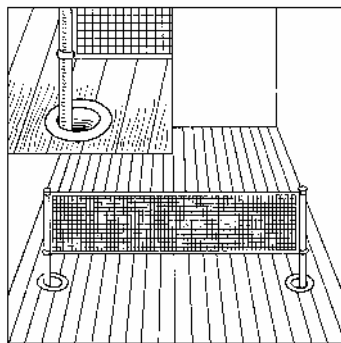


Fig. 5