

UNOBAT 45 SPORTS FLOOR SYSTEM

Sport

JUNCKERS UNOBAT 45

D 1.0	General information
D 1.2	Batten System Information
D 11.2	Specifier's Information
D 11.2.1	Laying Instruction

Fig. 1

GENERAL DESCRIPTION OF FLOOR SYSTEM

Junckers Unobat 45 Sports Floor System is based on 22 mm solid hardwood floor boards nailed to a resilient sub construction of a single layer of prefabricated battens. The floor system is an area elastic type of sports floor with high shock absorbency combined with a high ball bounce, which makes it suitable for fast ball games as well as in multi-purpose sports hall.

The construction height is 45 mm.

The sports floor system fully conforms to EN 14904:A4.

Please note that full documentation of a floor system comprises the data in D 1.0, D 1.2, D 11.2 and D 11.2.1, see Fig. 1.

COMPONENTS

1 - Floor Boards

Solid hardwood parquet.

Thickness x width x length:

22 x 129 x 3700 mm

Wood species: See B 2.0

2 - Nails

2.2 x 45 mm Junckers J-Nails.

3 - Unobat 45 batten system

Battens 19 x 45 mm.

9.0 x 6.3 mm resilient rubber band.

Total batten height 23 mm.

Batten centres:

c/c 411.1 mm (411)

c/c 336.4 mm (336)

4 - Moisture barrier

Junckers Moisture Barrier, see also D 1.2.

5 - Expansion gap at the wall

1.5 mm per metre width on each side and

1 mm per metre length at each end, but

both min. 30 mm.

It is also required at fixed points, e.g.

columns, see also D 1.2.

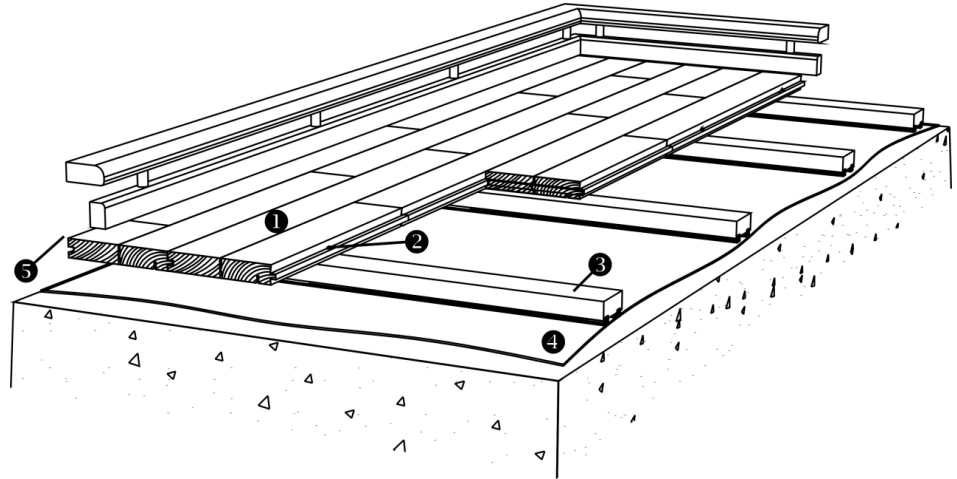


Fig. 2

SYSTEM SPECIFICATIONS

22 mm solid hardwood floor boards nailed to a substructure of prefabricated battens. Manufactured as a single layer structure of 19 x 45 mm laminated battens with rubber band pre-mounted in grooves on the underside of the batten.

The Unobat 45 system is installed on a dry, load-bearing floor of concrete, lightweight concrete, wooden materials or on an existing synthetic or wooden sports floor.

In general the subfloor must be flat with a maximum deviation of 2 mm under a 1.5 m straight edge (UK: 3 mm under a 2 m straight edge). But because of the special batten structure it will only influence the homogeneity of the floor, and hence the sports functional characteristics, if the demands of flatness is departed, not the strength.

Batten centres 336 or 411 mm, is determined depending on the expected sports functional characteristics and/or loading requirements. If the floor is used for basketball or retractable seatings are to be installed in the sports hall, batten centres 336 mm shall always be used.

FLOOR BOARDS

The floor boards are nailed to the battens according to a fixed 10-board rule, see D 1.2.

The floor boards are laid in a continuous pattern with well-defined distribution of board header joints from row to row of 2 x the batten centres, i.e. 822.2 mm with c/c 411.1 mm, or 4 x the batten centres, i.e. 1345.6 mm with c/c 336.4 mm.

In that way that all board headerjoints are supported, see also D 11.2.1.

POINTLOAD-BEARING STRENGTH

The Unobat 45 Sports Floor System is tested and approved for below mentioned maximum point loads, in relation to load area and batten centres:

c/c 336 mm:

Diameter, 25 mm: 4.5 kN (=450 kg)

100x100 mm: 6.0 kN (=600 kg)

c/c 411 mm:

Diameter, 25 mm: 4.0 kN (=400 kg)

100x100 mm: 5.5 kN (=550 kg)

Fig. 4

LOAD-BEARING STRENGTH

The Unobat 45 Sports Floor System is designed to ensure good technical properties in relation to the expected loads in connection with sports activities.

The load-bearing strength of the system depends mainly on the loading type and load area.

Table 1 shows use of the floor system in relation to the load classes in EN 1991-1-1.

See Fig. 4 for specific point load bearing strength.

For further definition of load classes and types, see D 1.0 - Stiffness and loadbearing strength.

TABLE 1	Loading types	
	Area- and Point load	Wheel load
C4: Assembly halls for physical activity, e.g. gyms/theatres	Approved*	Approved**
C5: Assembly halls which can be crowded, e.g. sports halls incl. stands.	Approved	Approved**

* Point load area min. 200 x 200 mm

** Wheel loads, see D 1.0 - Table 2

CONSUMPTION OF MATERIALS

Net consumption for 1000 m² (Length x width = 40 x 25 m) UnoBat 45 batten system:

	Batten centres 336	Batten centres 411
Boards	Area + 2% wastage	Area + 2% wastage
J-Nails	25,000 pcs	20,000 pcs
Unobat 45 battens	3,000 rnm	2,500 rnm
Loose tongues	67 pcs (5 bags)	67 pcs (5 bags)
Moisture Barrier	Area + 15% wastage	Area + 15% wastage
Header Joint adhesive	3 bottles (3 x 0.75 litre)	3 bottles (3 x 0.75 litre)