

## UNDERFLOOR HEATING

E 4.0	General Information
E 4.4	Sports Floor System Information

**Fig. 1**

## INTRODUCTION

These guidelines concern Junckers sports floor systems installed over underfloor heating.

Please note that full documentation of a sports floor system with a built-in underfloor heating system comprises the data in E 4.0, E 4.4, **see Fig. 1**, and the data sheets of each sports floor system, **see D 1.0**.

## GENERAL INFORMATION

Battens and other wooden material included in substructures with underfloor heating systems should generally have lower moisture content than normally specified because the wood will dry out more – in ideal conditions max. 10%. Engineered battens supplied with Junckers Sports Floor Systems with a moisture content of 8-10% are therefore particularly suitable.

Insulation up to the underside of the heat-distribution plates and heating pipes will reduce the heat loss.

## COMPONENTS

### 1 - Boards

- Junckers 22 mm boards for sports floors

### 2 - Nails

- 22 x 45 mm machine J-Nails

### 3 - Batten systems

- Unobat 45, batten thickness 23 mm
- Blubat 52, batten thickness 30 mm

### 4 - Junckers Moisture barrier

- 0.20 mm PE membrane

### 5 - Subfloor

- Concrete with embedded heating pipes or cables

## UNOBAT 45 AND BLUBAT 52 OVER UNDERFLOOR HEATING

Junckers Unobat 45 and Blubat 52 sports floor systems can be laid on concrete or screeded subfloors with cast-in heating pipes or cables. It is extremely important that the floor heating system is designed to achieve a stable temperature across the surface of the concrete or screed. The following applies to heating pipes in concrete or screeded floors:

To ensure an even temperature distribution, on casting there must be min. 30 mm of concrete or screed above the heating pipes. The pipes should not be spaced more than 300 mm apart, and the cables not more than 150 mm apart.

The residual moisture contained in the concrete or screed should not exceed 90% RH (UK: Concrete moisture max. 65% RH acc. to BS 8201, when checked by measurement).

Moisture barrier: All overlaps must be taped using 50 mm wide tape.

For detailed sports floor system information, see **D 11.2** and **D 6.2**.

Fig. 2

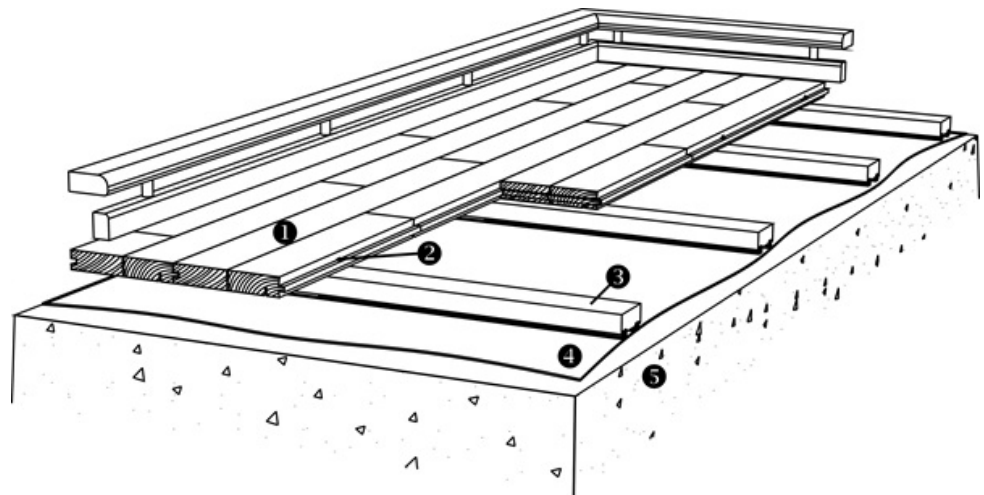


Fig. 3 Sports floor on concrete with cast-in heating

## COMPONENTS

### 1 - Boards

- Junckers 22 mm boards for sports floors

### 2 - Clips

### 3 - Intermediate layer

- 10 mm Junckers Sportsfoam,  
**see H 3.3**

### 4 - Junckers Moisture barrier

- 0.20 mm PE membrane

### 5 - Subfloor

- Concrete with embedded heating pipes or cables

## CLIP SPORTS FLOOR SYSTEM OVER UNDERFLOOR HEATING

Junckers Clip Sports Floor System can be laid on concrete or screeded subfloors with cast-in heating pipes or cables. It is extremely important that the floor heating system is designed to achieve a stable temperature across the surface of the concrete or screed. The following applies to heating pipes in concrete or screeded floors:

To ensure an even temperature distribution, on casting there must be min. 30 mm of concrete or screed above the heating pipes. The pipes should not be spaced more than 300 mm apart, and the cables not more than 150 mm apart.

The residual moisture contained in the concrete or screed should not exceed 90% RH (UK: Concrete moisture max. 65% RH acc. to BS 8201, when checked by measurement).

Moisture barrier: All overlaps must be taped using 50 mm wide tape. For detailed sports floor system information, **see D 2.1**.

Fig. 4

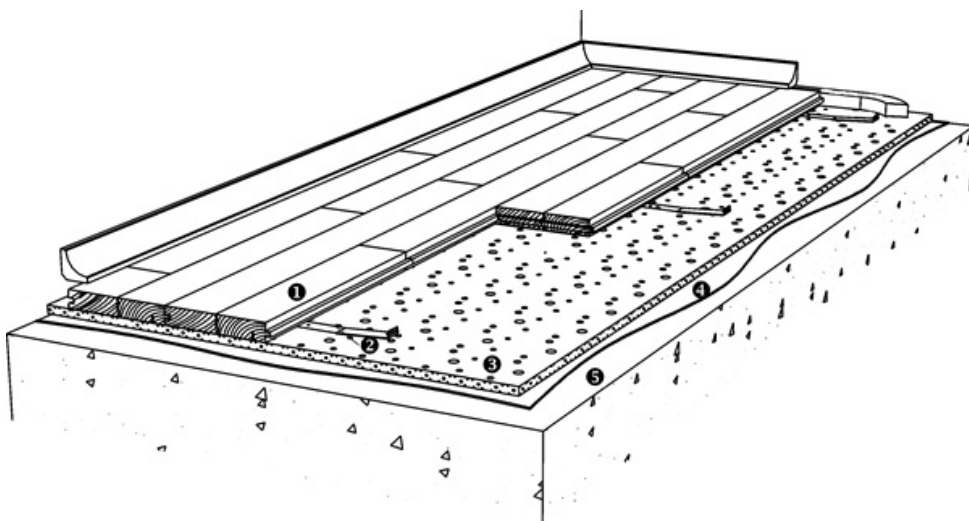


Fig. 5 Clip sports floor on concrete with cast-in heating

## COMPONENTS

### 1 - Boards

- Junckers 22 mm boards for sports floors

### 2 - Nails

- 2,2mm x 45mm machine J-nails

### 3 - Batten Systems

- Unobat 62+
- Bases from 20-50mm of height

### 4 - Heating Pipes

### 5 - Insulation

- 20-50mm thickness

### 6 - Moisture barrier

- 0,20mm PE Membrane

Fig. 6

## UNOBAT 62+ WITH UNDERFLOOR HEATING

The Junckers sports floor system Unobat 62+ with an underfloor heating system built in between battens. The heating pipes are laid on a 50mm hard plate of insulation.

To ensure an even temperature distribution, the pipes should not be spaced more than 300mm apart.

the residual moisture contained in the concrete or screed should not exceed 90 % RH C UK. Concrete moisture max 65 % RH acc. to BS 8201 when checked by measurement.

Moisture barrier: All overlaps must be taped using 50mm wide tape.

For detailed sports floor system information see **D 8.2.1**

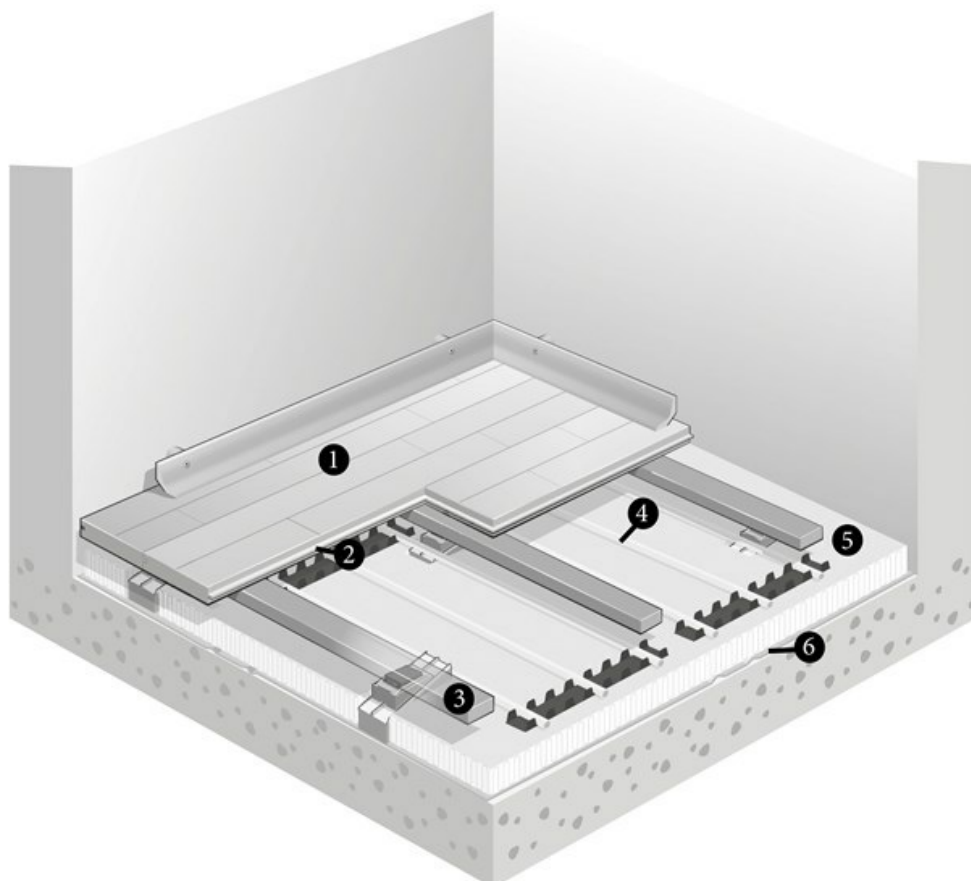


Fig. 7 Unobat 62+ sports floor system with heating system built in between battens

## COMPONENTS

### 1 - Boards

- Junckers 22 mm boards for sports floors

### 2 - Nails

- 2,2mm x 45mm machine J-nails

### 3 - Batten Systems

- Duobat 120+
- Bases from 20-50mm of height

### 4 - Heating Pipes

### 5 - Insulation

- 20-50mm thickness

### 6 - Moisture barrier

- 0,20mm PE Membrane

Fig. 8

## DUOBAT 120+ WITH UNDERFLOOR HEATING

The Junckers sports floor system Duobat 120+ with an underfloor heating system built in between battens. The heating pipes are laid on a 50mm hard plate of insulation.

To ensure an even temperature distribution, the pipes should not be spaced more than 300mm apart.

the residual moisture contained in the concrete or screed should not exceed 90 % RH C UK. Concrete moisture max 65 % RH acc. to BS 8201 when checked by measurement.

Moisture barrier: All overlaps must be taped using 50mm wide tape.

For detailed sports floor system information see **D 7.2.1**

