

UNDERFLOOR HEATING SPORTS FLOOR SYSTEMS

INTRODUCTION

E 4.0	General Information Underfloor heating
E 4.4	Underfloor heating Sports floors

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

Always consult the supplier of the underfloor heating system for correct specification and use.

Please note that full documentation of a sports floor system with a built-in underfloor heating system comprises information in E 4.0, E 4.4, **see table 1**. It is also recommended to read about the individual sports floor systems in chapter D.

Table 1

MOISTURE CONTENT IN WOODEN BASED MATERIALS

Battens and other wooden based materials included in substructures with underfloor heating should generally have lower moisture content than normally specified.

This because the wood will dry out more – in ideal conditions max. 10 %. Laminated battens supplied with Junckers Sports Floors 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.

1. UNOBAT 45 / 50 / 53 AND BLUBAT 52

The 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: max. 75 % RH acc. to BS 8201).

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

For detailed sports floor system information, **see Specifier's- and Installation Instructions for each of the systems.**

FLOOR COMPONENTS

1. Junckers 2-strip solid hardwood floorboards for sport
2. Junckers J-Nails (Machine nail), 22x45 mm
3. Laminated battens
Unobat 45, thickness 23 mm
Unobat 50, thickness 28 mm
Unobat 53, thickness 31 mm
Blubat 52, thickness 30 mm
4. Moisture barrier
0.20 mm PE membrane
5. Subfloor
Concrete with embedded heating pipes or cables

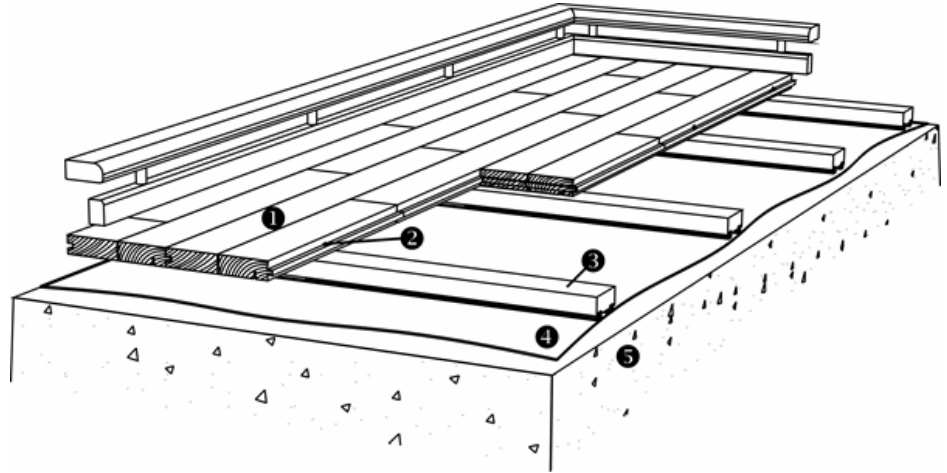


Fig. 1

2. CLIP SPORTS FLOORS

The 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: max. 75% RH acc. to BS 8201).

Moisture barrier: All overlaps must be taped using 50 mm wide tape. For detailed sports floor system information, see **Specifier's- and Installation Instructions D 2.1, Clip floors**.

FLOOR COMPONENTS

1. Junckers 2-strip solid hardwood floorboards for sport
2. Clips
3. Intermediate layer
10 mm Sports Foam
4. Moisture barrier
0.20 mm PE membrane
5. Subfloor
Concrete with embedded heating pipes or cables

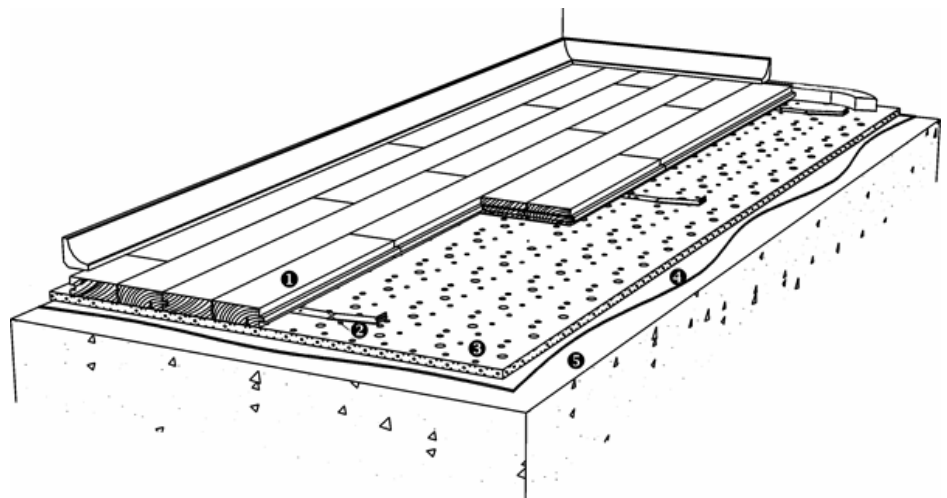


Fig. 2

3. UNOBAT 62+ AND UNOBAT 78+

Unobat 62+ and Unobat 78+ with an underfloor heating system built in between battens.

The heating pipes are laid on a 50 mm hard plate of insulation. To ensure an even temperature distribution, the pipes should not be spaced more than 300 mm apart.

The residual moisture contained in the concrete or screed should not exceed 90 % RH (UK: max 75 % RH acc. to BS 8201).

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

For detailed sports floor system information see **Specifier's- and Installation Instructions D 8.1, Unobat 62+, and D 18.1, Unobat 78+.**

FLOOR COMPONENTS

1. Junckers 2-strip solid hardwood floorboards for sport
2. Unobat 62+ / 78+ batten systems
3. Levelling wedges. Use bases under the wedges to accommodate the thickness of the insulation.
4. Heating Pipes
5. Insulation, 20-50 mm thickness
6. Moisture barrier 0,20 mm PE Membrane

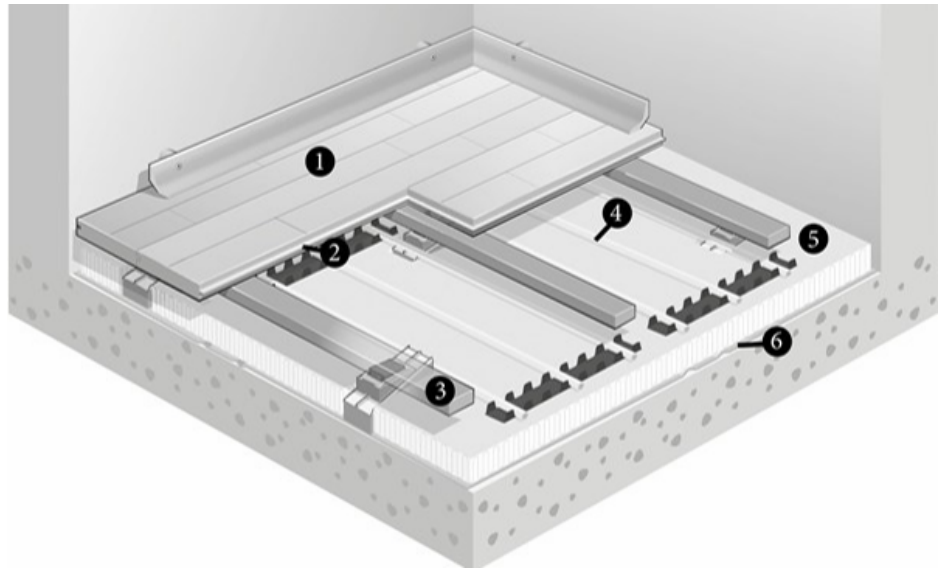


Fig. 3

4. DUOBAT 120+

Duobat 120+ with an underfloor heating system built in between battens.

The heating pipes are laid on a 50 mm hard plate of insulation. To ensure an even temperature distribution, the pipes should not be spaced more than 300 mm apart.

The residual moisture contained in the concrete or screed should not exceed 90 % RH (UK: max 75 % RH acc. to BS 8201).

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

For detailed sports floor system information see **Specifier's- and Installation Instructions D 7.1, Duobat 120+**.

FLOOR COMPONENTS

1. Junckers 2-strip solid hardwood floorboards for sport
2. Junckers J-Nails (Machine nail), 22x45 mm
3. Laminated battens,
Upper: 25.5 mm
Lower: 39 mm
4. Heating Pipes
5. Insulation
20-50 mm thickness
6. Moisture barrier
0,20 mm PE Membrane

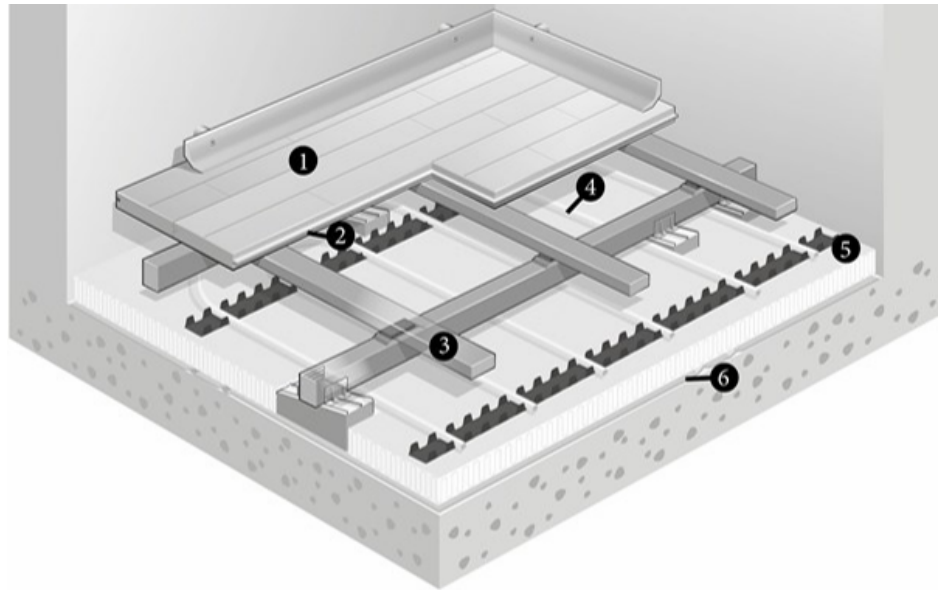


Fig. 4