

Junckers Clip Sports Floor Systems

D 1.0 General Information

D 1.1 Clip System Information

Specifier's Information

Laying Instructions

Introduction

This data sheet describes the general conditions for specification of Junckers clip systems for sports floors. The information also applies to Junckers portable floor system.

Subfloors

Subfloors may be of concrete, lightweight concrete or screed in connection with renovation may be an existing sports floor with e.g. a synthetic or wooden floor surface.

The elasticity of the subfloor has a direct impact on the properties of the completed floor in terms of deflection, impact absorption and ball bounce. In renovation projects the elasticity and load bearing strength of the existing floor must be assessed in relation to the use of the floor

If the overall floor space is made up of several types of subfloor, it must be of uniform elasticity and flatness, to ensure that the final floor is of a constant nature.

The moisture content of a wooden subfloor must be in balance with the relative humidity of the room, i.e. moisture content of 6-12%.

Flatness of subfloor

Use one of the two methods stated below for measurement of the subfloor flatness. The subfloor must be measured and screeded before the intermediate layers are laid. → **Fig. 2.**

A) Traditional straight edge

The subfloor must be flat with a maximum deviation of 2 mm under a 1.5 m straight. The surface must be smooth. Any minor irregularities must be corrected.

B) Straight edge with supports

The subfloor must be flat with a maximum deviation of ± 2 mm under a 2 m straight edge. The surface must be smooth. Any minor irregularities, e.g. across day joints, must be corrected so that the maximum localised deviation from flat level is ± 0.6 mm under a 0.25 m straight edge.

Major irregularities on concrete floors can be corrected by using a self-levelling compound. Wooden subfloors may be levelled by sanding, installing hard fibreboards, possibly combined with filler, or by laying fibrous plasterboards.

Junckers Technical Information specifies the flat level requirements of subfloors as a maximum deviation of **2 mm under a 1.5 m straight edge.** (UK: 3 mm under a 3 m straight edge)

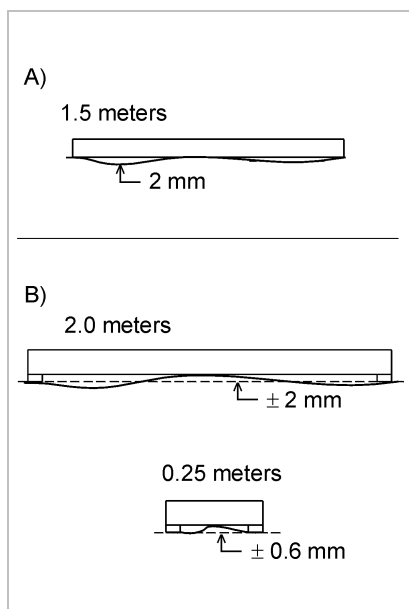


Fig. 2 - Flatness requirements

Expansion gaps at walls and fixed installations

The minimum expansion gap at walls and fixed installations must be 30 mm in order to allow for movement of the floor. In the case of especially wide spans it may be necessary for a gap of more than 30 mm to be formed. This is calculated at 1.5 mm per m width at the side. For floors under 7.5 m width the minimum expansion gap size can be reduced to 15 mm.

For the lengthwise of the floor, place expansion strip between the end of the boards and the wall. For floor with lengths up to 25 m use one expansion strip, and for floors up to 50 m use 2 expansion strips.

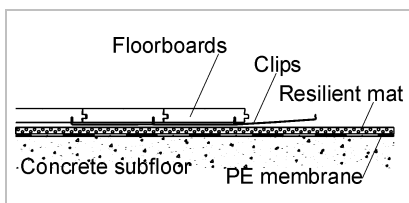


Fig. 3 - Cross-section of clip floor on concrete subfloor

Intermediate layer

The intermediate layer used for Junckers floating sports floors is a resilient mat of extruded polyethylene cellular plastic with a completely sealed cell structure and a density of approx. 35 kg/m³. The elasticity of the subfloor determines the choice of intermediate layer. If the subfloor is wholly or partly inelastic a 10 mm resilient mat is used, while on elastic subfloors, e.g. existing sports floors with certain sport-related properties, a 5 mm resilient mat is used.

Moisture protection

Concrete subfloors

At ground level and in other floor structures subject to a risk of residual moisture, protection against moisture both from within the building and from the ground is required. The residual moisture in the slab is controlled by laying a min. 0.15 mm PE or 1000g polythene membrane on the surface of the concrete.

The residual moisture contained in the concrete or screed should not exceed 65% RH, equivalent to the expected maximum relative humidity in the building over the year (UK: Concrete moisture max. 75% RH acc. to BS 8201, when checked by measurement). → **Fig. 3**

Wooden subfloors

For renovation projects where floating floor systems are laid on existing wooden subfloors it must be ensured that the entire structure has been designed to the correct specifications regarding moisture. Usually, no additional moisture protection must be applied on top of the existing sportsfloor as this may course the risk of fungal attacks in the subconstruction. → **Fig. 4**

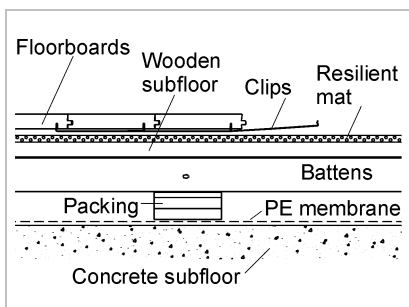


Fig. 4 Cross-section of clip floor on wooden floor