

DELAMINATION

Engineered vs
solid hardwood sports floors



JUNCKERS

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ENGINEERED VS SOLID HARDWOOD SPORTS FLOORS

DELAMINATION AND LOSS OF STRENGTH UNDER REPEATED BENDING AND POINT LOADS

If you are playing on a wooden sports floor that is older than 15 years then it is probably a Junckers SylvaSport solid wood floor- not an “engineered” wood floor.

ENGINEERED FLOORS



10 YEAR OLD ENGINEERED WOOD FLOOR

- Failed floor with lamella core exposed
- Floor board loses its strength
- Wear layer splintered and delaminated



ENGINEERED WOOD FLOOR CONSTRUCTION

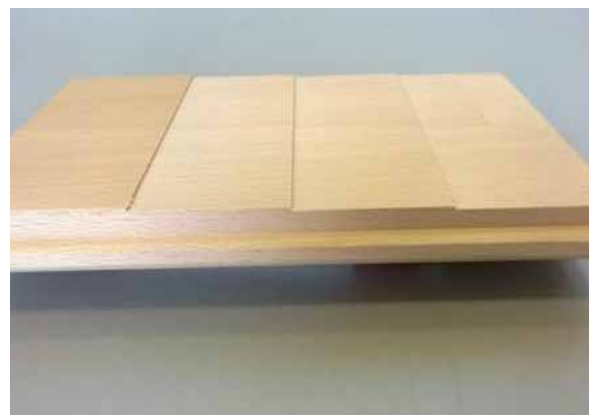
- Lamella blockboard core
- Thin top wear layer; may be sanded only twice.

SOLID HARDWOOD FLOORS



JUNCKERS SYLVASPORT FLOOR; OVER 20 YEARS OLD

- Full strength for life even after 8 sandings
- No veneer layers or glue bonds which can fail
- Retains A3 or A4 performance under EN 14904



SYLVASPORT SOLID WOOD FLOOR CONSTRUCTION

- Unique Press dried solid hardwood Beech and Maple
- Multiple sandings do not cause floor to delaminate
- Sanding does not cause floor to splinter
- Life span in excess of 60 years achievable

PROOF POINT

Test results for breaking load and loss of stiffness for solid and engineered floor boards.

MAXIMUM LOAD CAPACITY USING A 25MM WIDE STEEL BAR		
	22mm Junckers Sylvasport Beech	23mm x 139mm Engineered Board
Unsanded	25.75kN	16.6kN
1 sanding	22.89kN	14.97kN
2 sanding	19.36kN	13.58kN

Results show significantly higher strength of the 22mm Junckers solid board compared with engineered.

LOSS IN STIFFNESS		
	22mm Junckers Sylvasport Beech	23mm x 139mm Engineered Board
1 Sanding	-2%	-23%
2 Sandings	-15%	-30%

Some loss of stiffness is expected when a wooden floor is sanded. The loss of stiffness with the engineered board is dramatic. This raises a question for clients if an engineered sports floor will meet the ball bounce, deflection and shock absorption criteria under EN 14904 if it has been sanded. **Source: Independently tested by Exova/ TRADA**

JUNCKERS FEATURES AND BENEFITS

1. PRESS DRIED BEECH OR MAPLE: FOR STABILITY

All Junckers SylvaSport Beech and Maple solid hardwood floors are press dried. Junckers developed this unique process in the 1950's and no other manufacturer can claim, like-for-like, their boards are as stable as a Junckers floor. Press drying gives you:

- **Improved dimensional stability:** Reduced seasonal expansion and shrinkage
- **Improved hardness:** Press drying permanently "compresses" the wood
- **Improved structural strength:** Simply, a stronger floor which will take higher loads. Some suppliers offer oak but this has 30% less structural strength than press dried beech and so is not recommended by Junckers for dedicated sports floors.

Press drying gives Junckers complete control of the drying process resulting in a consistent and stable floor.

2. SOLID HARDWOOD: FOR STRENGTH

All Junckers SylvaSport Beech and Maple solid hardwood floors retain their strength, after repeated point loads as normally associated with retractable and fully mobile seating without affecting their "sprung" A3 or A4 performance.

An engineered wood floor with a "lamella" core can fail when the glue between lamellas breaks. The floor becomes too flexible

- It may fail shock absorption and deflection requirements under EN 14904
- It may lose its A3 or A4 classification and fail to meet standards required by Sport England and Sport Scotland

This process accelerates under repeated impact and point loads.

- All Junckers A4 sports systems comply with the company's fatigue testing programme. The floor is subjected to 100,000 impacts of 300kg which is the equivalent of 25 years use

3. SOLID HARDWOOD: FOR LOW LIFECYCLE COST

Junckers activity floors are made from solid hardwood. This makes them one of the longest-lasting, durable and "low life-cycle cost" activity floor available.

A Junckers floor can be sanded between eight and ten times so a life span in excess of 60 years is easily achievable. During its lifetime a Junckers solid hardwood floor:

- Retains its strength
- Will not delaminate
- Is easy to maintain



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