

Information Sheet

Engineered Hardwood Board vs Solid Timber Board



Introduction

This document highlights the benefits of using a DYNAMIK engineered premium sports board compared to a solid timber board.

Typical Construction of Timber Floors

Engineered Hardwood Board with a Plywood Core – manufactured to combine a solid hardwood upper layer with a high density multi-layer plywood core. The high density multi-layer core provides superior indentation resistance and high dimensional stability, especially within large sports hall environments.

Engineered Hardwood Board with a Softwood Core – manufactured to combine a solid hardwood wear layer with a softwood core.

Solid Timber Board - typically 22mm thick made from narrow staves of timber joined by a double dovetail joint which is typically no more than 4mm below the surface of the board.

Sanding and Resealing

Engineered hardwood boards when compared to solid timber boards are 7 times more dimensionally stable when exposed to changes in temperature and humidity.

Solid timber boards cup and curl at the board edges, as illustrated below, as they expand and contract, therefore you need to sand off the peaks to get to the scratches in the hollows. A consequence of this is that a typical sand and reseal on a solid timber floor will be more frequent and will actually bite into and consume more of the hardwood.

Cupping



Curling



Engineered premium sports boards do not cup and curl, therefore you only need to abrade the surface to remove scratches and consume little, if any, of the hardwood (3 sands in 30 years, i.e. YR10/20/30). As a comparison, solid timber requires more frequent sanding, which adds to life cycle costs.

Consequently the average life of a floor with an engineered hardwood board will be significantly longer, particularly so with a DYNAMIK engineered hardwood board which incorporates a factory applied UV hardened abrasion resistant lacquer.

Appearance of Finished Floor and Cleaning & Maintenance

Because a solid timber floor suffers greater expansion and contraction, a typical installation needs to include 'washer gaps' every 4 boards to take up some of the expansion and contraction. Engineered hardwood floors only require a perimeter expansion gap. Aesthetically these gaps look unattractive and are a trap for moisture and dirt and therefore the cleaning regime needs to address this.

Timber Species

Engineered hardwood boards come in a greater variety of wood species including European Oak, Maple, Beech and Ash. Oak has increased stability, increased indentation resistance and an ability to hide minor scratches due to its natural appearance.

Official Partners



Environmentally Friendly

An engineered hardwood board typically uses 80% less precious hardwood than a solid timber board.

Underfloor Heating

Underfloor heating causes more movement in the floor system due to the proximity of the heat source. Given the increased dimensional stability engineered hardwood systems are better suited for underfloor heating.

Sports Performance

Solid timber floors only offer elasticity from the sub construction as the surface boards are very ridged, with a DYNAMIK engineered hardwood floor both the surface and the sub construction combine to give high levels of performance and comfort.

Life Cycle Costs

A DYNAMIK engineered hardwood floor will benefit from much lower costs in terms of day to day maintenance given the absence of washer gaps and a less frequent need for a sand and reseal due to the factory applied UV-cured lacquer.

The cost of maintaining a typical 600m² solid timber floor to the manufacturer's instructions is in the region of £72,000 over a 25 year period, the cost for a comparable engineered hardwood floor is significantly less, being in the region of £44,000.

Conclusion

Wood floors have evolved such that if your preference is for a hardwood finish then a DYNAMIK engineered Premium Sports Oak board should be the obvious choice – superior sports performance and lower life cycle costs come as standard.



A DYNAMIK Sports Floor installed at the National Basketball Performance Centre (NBPC), Manchester.

Product specifications may be subject to change without notice, please contact DYNAMIK for the latest product information