



ECO-TEK

Sustainable Flooring Solutions

High Performance Engineered
Hardwood Sports Floor Systems

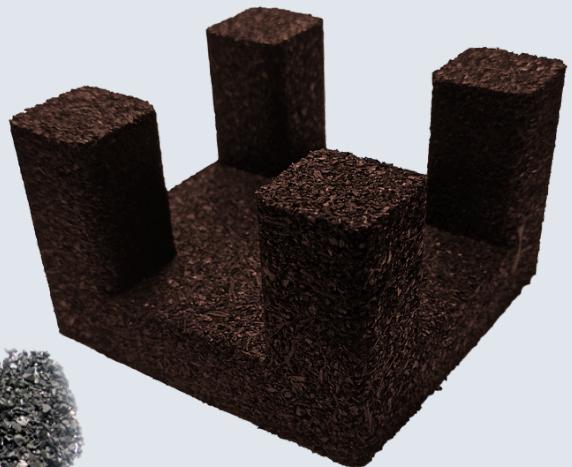
Sports Floor Systems

ST23 engineered oak sprung, impact energy absorbing sports floor systems are suitable for indoor sports, dance and fitness applications. The finished floor is compliant with EN14904, as well as the strict criteria stipulated by sports governing bodies, such as Sports England. The systems are also designed to withstand the loadings from users and equipment as defined in BS 6399: Part 1.

System Benefits

- Complies with BS/EN 14904
- Creates Area Elastic performance sprung floor
- No structural subfloor preparation
- Excellent shock absorption to protect athletes
- Fully adjustable on site to eliminate height variations in structural floor
- Sports cradles have a 60 year guarantee
- System can accommodate underfloor heating and services in the void
- Access hatches and fittings for sports equipment can be incorporated
- Environmentally friendly and recyclable

Floor systems comprise of special single composition rubber cradles manufactured using recycled rubber from tyres



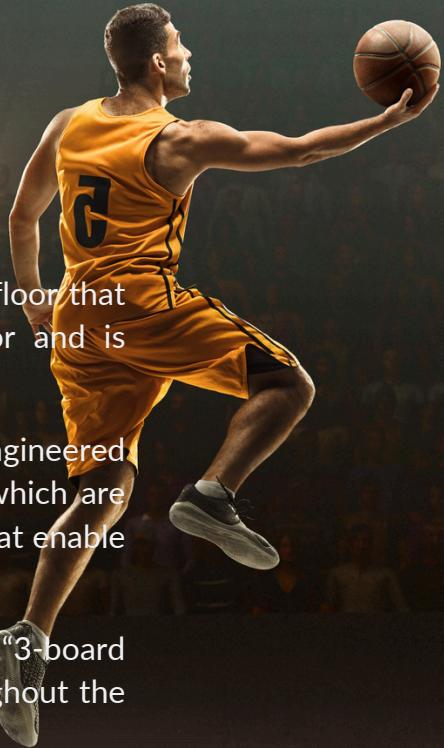
Applications

- New build & Refurbishment
- All level and uneven subfloors
- Sports halls, and gyms
- Dance and exercise studios

ST23 is a fully sprung high performance sports floor that can be installed on an uneven structural floor and is certified to BS EN 14904.

The system is installed using Pro Sport 23mm engineered boards secret nailed to kiln dried LVL beams, which are supported by "recycled rubber crumb" cradles that enable fast levelling of the system.

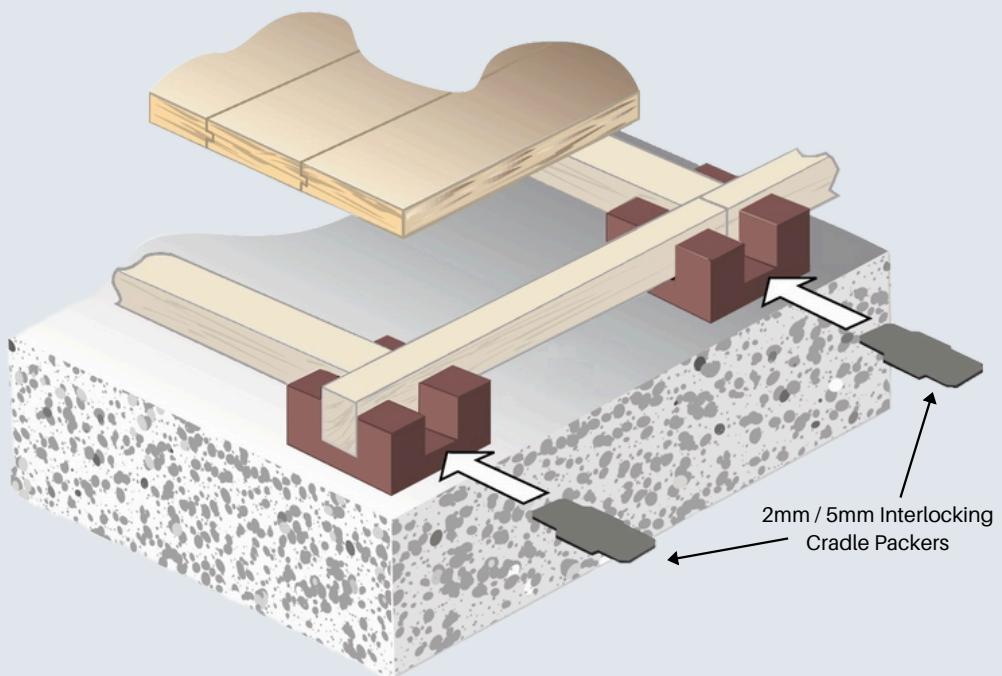
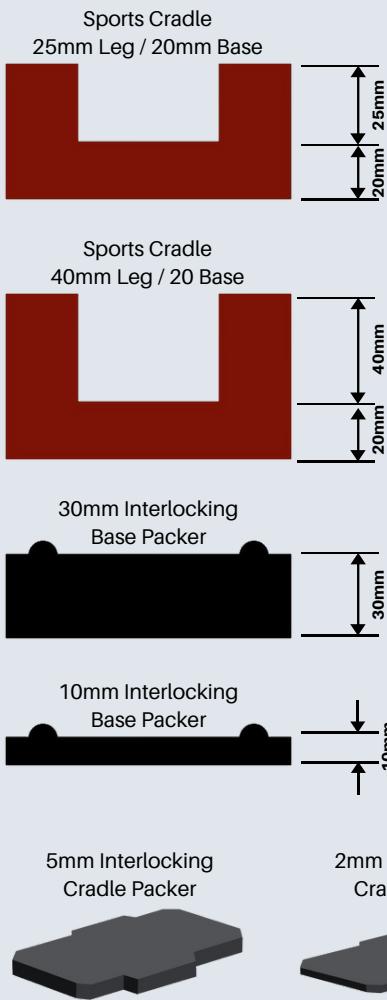
The installation pattern is traditional classic "3-board stagger", creating a uniform even pattern throughout the field of play.



Performance Results

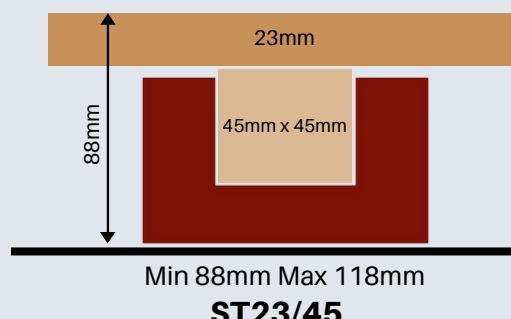
InstaSport System	Sports Surface	EN14904 Performance	Shock Absorption %
ST23/45	23mm Engineered Oak	Area Elastic A4	64
ST23/27	23mm Engineered Oak	Area Elastic A4	66

Components



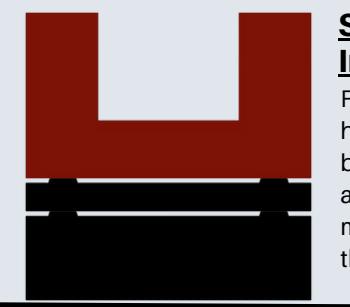
Engineered Hardwood Sports Board
23mm x 215mm x 2200mm
Oak, Ash and Beech - 3.5mm Solid Hardwood

Finished floor heights with the ST23 systems



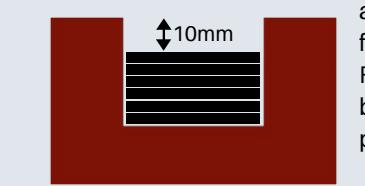
Subfloor Levelling and Increased Floor Heights

For uneven subfloors, increased floor heights and deep service voids, cradle base packers are available for rapid and easy height adjustment. These may be used in multiples to achieve the desired finished floor height.

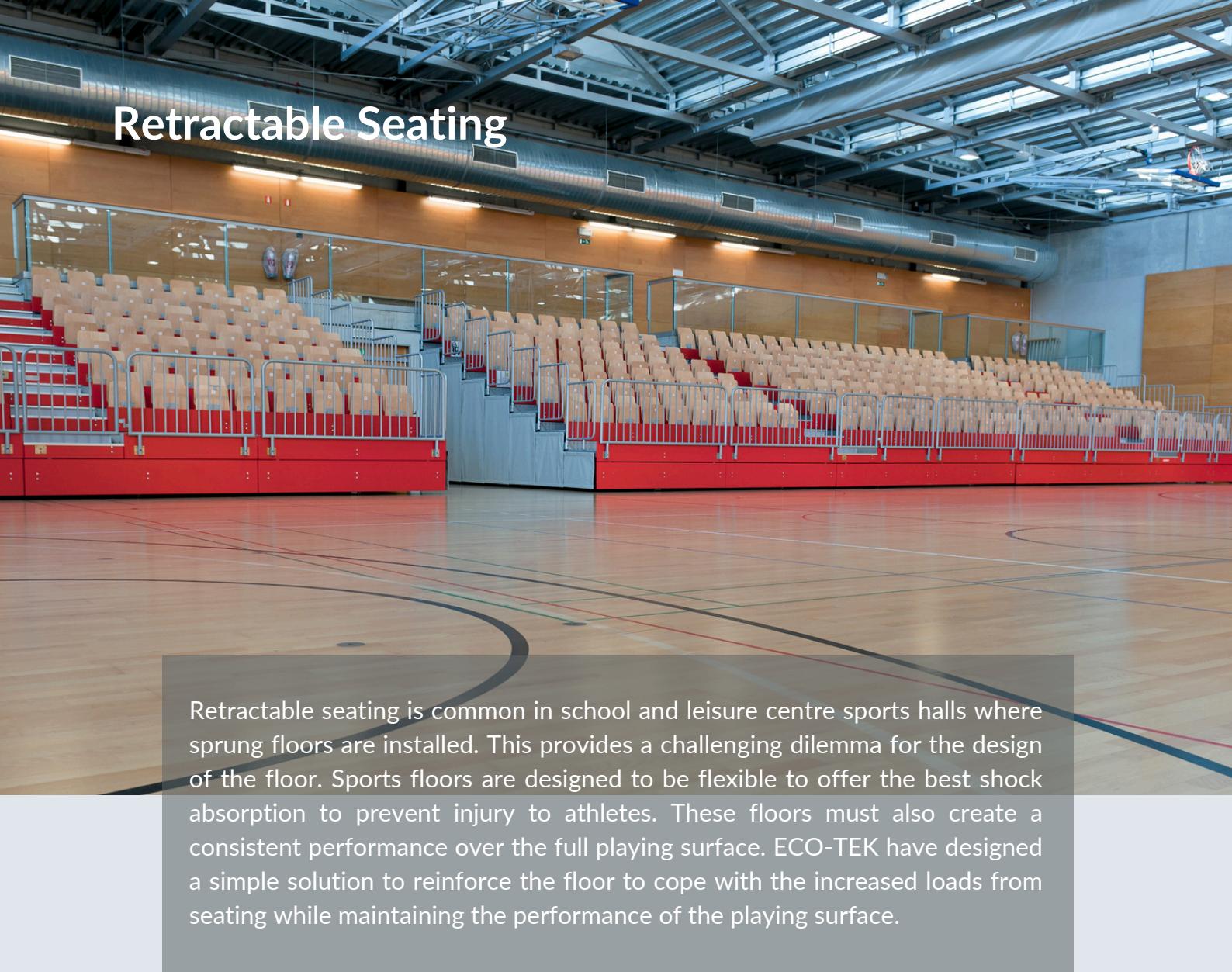


Subfloor Levelling

When packing within the cradle a minimum of 5mm must be left from the top of the cradle leg. Further packing/levelling can be achieved with cradle base packers.



Retractable Seating

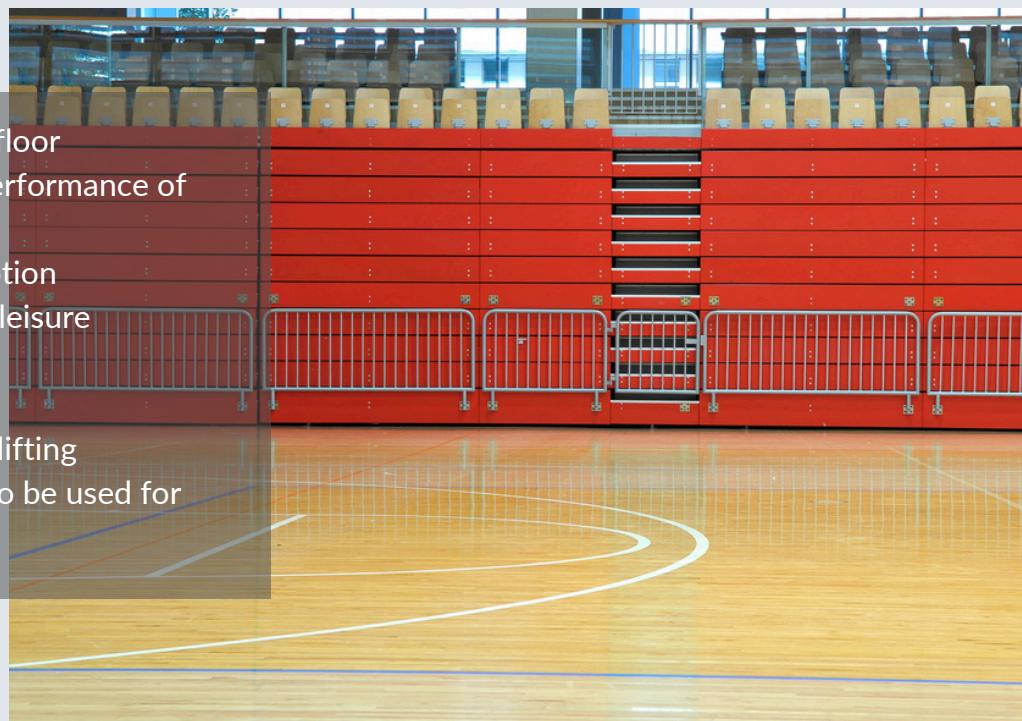


Retractable seating is common in school and leisure centre sports halls where sprung floors are installed. This provides a challenging dilemma for the design of the floor. Sports floors are designed to be flexible to offer the best shock absorption to prevent injury to athletes. These floors must also create a consistent performance over the full playing surface. ECO-TEK have designed a simple solution to reinforce the floor to cope with the increased loads from seating while maintaining the performance of the playing surface.

Retractable Seating (Bleacher Seating)

Design Solution

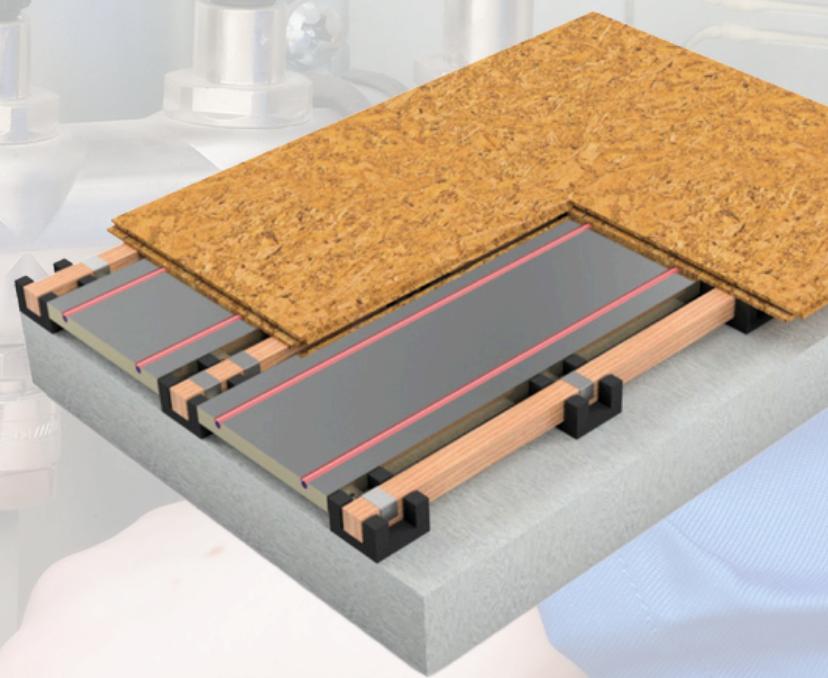
- Procedure to reinforce floor
- Maintains full sprung performance of sports floor
- No loss of shock absorption
- Suitable for all types of leisure applications
- Solution for theatres
- Allows MEWP (scissor lifting platforms) equipment to be used for maintenance work



Underfloor Heating

Heating Solution

Sports halls are increasingly being heated with wet underfloor systems. This type of heating provides an efficient and uniform means of heating large spaces whilst keeping lower walls, ceiling and upper wall space free from the clutter that can occur with other radiant systems or warm air heating.



Benefits of Under Floor Heating

Invisible

Underfloor heating is totally hidden and aesthetically pleasing.

Reduced Costs

Lifetime costs are significantly less, due to minimal maintenance and lower water temperatures. Low temperatures in results in lower running costs.

Freedom

An alternative to unsightly and bulky radiators or wall heaters, creating a clean modern space.



Healthier

Underfloor heating reduces air movement and allergen circulation, reducing dirt and dust mites.

Frequently Asked Questions

IS A4 THE STANDARD SPECIFICATION FOR DANCE?

A4 is not necessarily the standard specification for dance, however certain parts of the requirements for EN 14904 A4 are particularly relevant for dance floors, as Mark Foley in his Design Guidance for Dance Floors indicates: "Sports floors tend to require a less resilient level of performance than a dance floor because sports users are more concerned with ball bounce characteristics, for example, and also benefit from the additional comfort and protection afforded by cushioned sports shoes. Qualities such as "ball bounce" are irrelevant to dancers. However the "shock absorption" characteristics of a floor are particularly relevant and provide the protective component in the design of floors for dance where there is little or no cushioning provided by the dancers' footwear" InstaSport sprung floors offer the highest level of shock absorption which is why they are more versatile for multipurpose use for both ball sports as well as dance.

IS THERE A DIFFERENT SPECIFICATION FOR A FLOOR BEING USED FOR OTHER SPORTS SUCH AS JUDO, TAEKWONDO, FENCING?

Judo / Taekwondo sports generally involve the use of additional mats installed on top of the sprung floor. A mat or surface system will only compress a certain percentage of the material itself depending on its density if laid on a hard rigid surface such as a concrete floor. This often leads to injuries as the mats cannot absorb and dissipate the energy from a fall adequately. In Judo it is necessary to have a subfloor that deflects enough to absorb the impact of a 90kg plus person falling from sometimes above head height.

Therefore a "sprung" floor with good shock absorption is necessary so that the mats are not taking 100% of the impact and a fast, firm surface is still retained.

Fencing – This particular sport tends to use roll out "pistes" installed on top of the floor finish for when bouts actually take place.

SOLID AND ENGINEERED SPRUNG TIMBER FLOORING, WHICH IS THE MOST SUITABLE?

Engineered timber floors can overcome potential problems when underfloor heating is specified and where potential fluctuations may occur in Relative Humidity and Air Temperature. The cross layered construction provides an extremely dimensionally stable product compared to that of solid timber flooring. Tests have proven that engineered timber floors are 70% more stable than an equivalent width solid timber floor. Engineered timber floors also offer a solution to the potential problems of gapping or expansion of solid timber floors.



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