

# SPORTS FLOORS

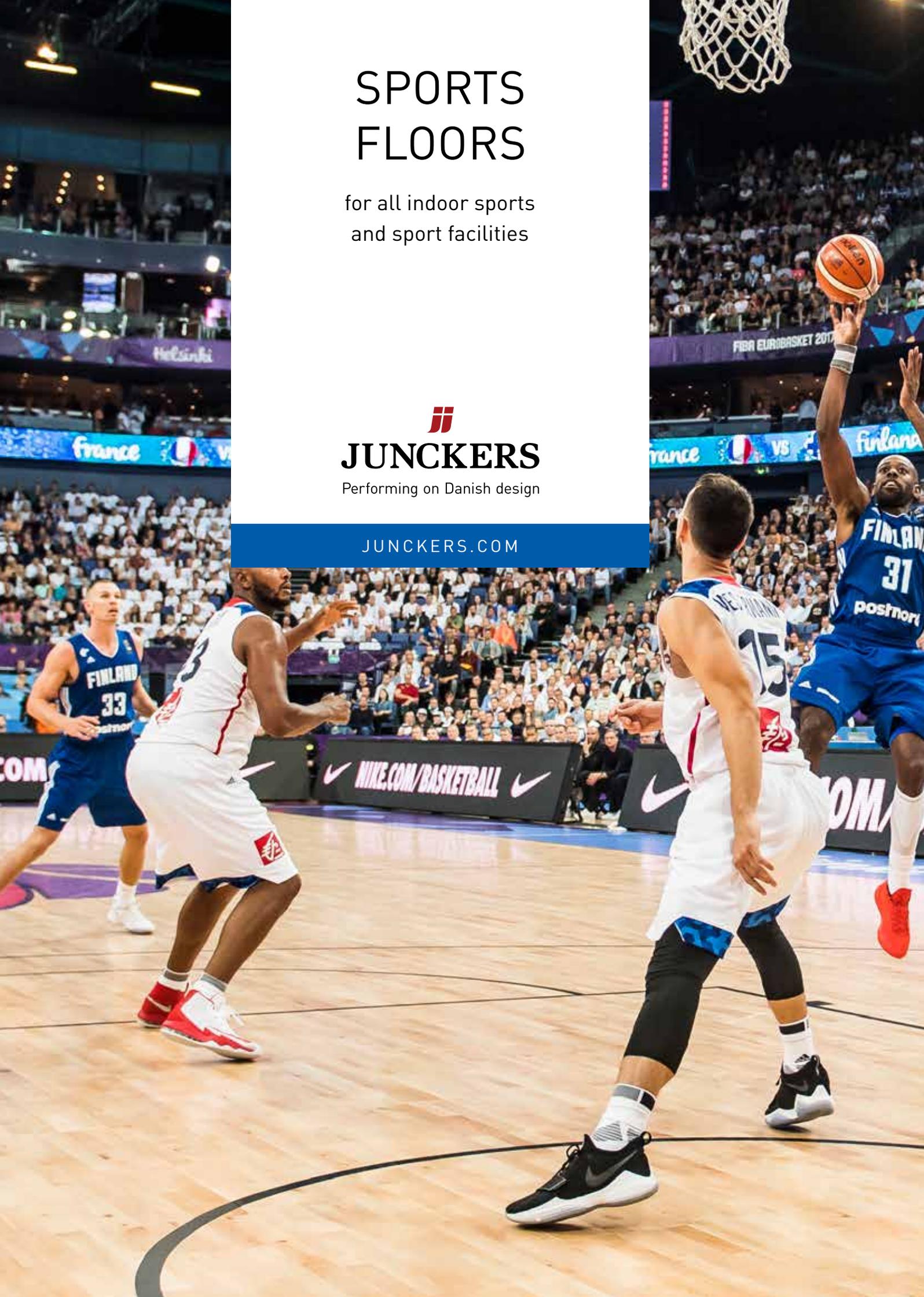
for all indoor sports  
and sport facilities



**JUNCKERS**

Performing on Danish design

[JUNCKERS.COM](http://JUNCKERS.COM)



# PERFORMING ON DANISH DESIGN

## ABOUT JUNCKERS

Junckers is Europe's leading manufacturer of solid hardwood sports, dance and activity floor systems.

For many decades Junckers has provided systems to meet the wide ranging needs from local community and multi purpose halls, to global landmark venues for Olympic, Commonwealth and professional sport.

Junckers is the only wood floor manufacturer to develop and manufacture its own range of lacquers and oil surface treatments. This means that Junckers Woodcare products are perfectly tailored for use with our floors, so there will be no concerns about "non-compatible" products reacting with one another.

**ALL JUNCKERS'  
WOODEN FLOORS  
AND WOODCARE  
PRODUCTS ARE  
PRODUCED IN  
DENMARK**

**DEVELOPMENT  
AND PRODUCTION  
ARE BASED ON  
SOLID TRADITIONS  
OF DANISH  
CRAFTSMANSHIP**

Junckers' quality and ease of use has made our Woodcare products amongst the most popular wooden floor coating brands in the industry; asked for by name by both clients and contractors.

With Junckers as a professional partner, you are always ensured proper technical service before, during and after a project.

We provide the complete solution and our experience ensures the highest possible quality.

Junckers is represented in more than 30 countries through 7 subsidiaries and a network of distributors and agents. Exports account for two-thirds of the total sales and the products are sold in more than 45 countries worldwide.

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The story of Junckers' beautiful solid hardwood floors began in 1930. It is the story of a passionate and innovative young man, who had a dream of using the forest's resources in the best possible way. Flemming Juncker, son of an estate owner from Southern Jutland, was born in 1904. At 25 he earned a Master of Forestry and established Junckers Sawmill in Køge the following year. To this day, Junckers still uses the same philosophy of resource optimisation. This means that any waste or bi-products, which are difficult to sell, are used in the production of sustainable energy.

## JUNCKERS IS A CO<sub>2</sub> NEUTRAL COMPANY

Despite Junckers is using a considerable amount of energy to dry and process the timber, the company produces more energy than it uses. The production's bi-products such as bark, wood-chips and sawdust are delivered to a local power station, which in return provides electricity and steam to Junckers and electricity and heat to the public Danish electrical grid.

As wood is considered a CO<sub>2</sub>-neutral material, and because Junckers generates more energy than the business itself can consume, the energy surplus is used to produce CO<sub>2</sub>-neutral electricity, which benefits society. That makes Junckers a CO<sub>2</sub>-neutral company!

## CERTIFIED TIMBER PEFC™ AND FSC®

At Junckers we believe in sustainability and support initiatives that improve environmental awareness. We hold Chain of Custody PEFC™ and FSC® certificates. A Chain of Custody certificate enables the wood to be tracked from the finished floor back to the forest.

PEFC™ and FSC® are organisations that manage foresting to protect nature, wildlife and people.



The mark of responsible forestry



Ask Junckers for FSC® certified products

## PRODUCT QUALITY

Junckers' product quality management system forms the basis of the company's CE marking of timber floors according to EN 14342, EN 14904 and EU Guidance Paper B and D for CE marking. The quality system is built according to the ISO 9000 series, although this is not monitored by a third party. The system includes employees, production and administrative processes and resources essential to meet the company's quality goals.

## CE – DECLARATION OF PERFORMANCE

Junckers' floors are CE marked, which means that the floors must comply with certain common EU standards in relation to safety, environment and health. A declaration of performance forms the basis for the CE marking, which accurately shows how specific legal requirements are met. For example, this is applicable to fire resistance, degassing, compression strength, friction, etc.





# SUSTAINABILITY, ENVIRONMENT & PRODUCT QUALITY

## ISO CERTIFICATIONS

Junckers is certified according to ISO 14001. Additionally, the environmental management system comprises areas such as working environment, as well as energy safety in connection with electrical work (SKS).

## EPD – ENVIRONMENTAL PRODUCT DECLARATION

We know from consultants, developers and architects how important it is to provide transparency and traceability in relation to materials. Therefore, in collaboration with Ramboll, Junckers has completed EPD's, which evaluate the environmental impact of our solid hardwood floors, and by this we can contribute to simplifying the work process in the selection of floors for a building to be sustainability certified.

The basis of a Junckers Environmental Product Declaration is a life cycle assessment, which focuses on environmental impacts from the following phases:

- A1: Extraction of raw materials
- A2: Transport of raw materials to factory
- A3: Production

The environmental impact of the floors is thus described from cradle to gate and documents CO<sub>2</sub> food print, use of energy resources and waste flows.

Junckers' EPD's are developed in accordance with the European standard EN 15804 and have been verified in accordance with ISO 14025. Independent verification of the declarations and data have been conducted by COWI A/S and the declarations are registered at EPD Denmark.

## INDOOR CLIMATE BECAUSE WE CARE ABOUT YOUR HEALTH

Junckers has a wide range of wooden floors and woodcare products certified under the Danish Indoor Climate Labelling scheme. A product with this accreditation has undergone extensive degassing and odour tests. This ensures that there are no chemical substances in the floor, which adversely affect the air quality in the room.

## UN GLOBAL COMPACT

Since the establishment of Junckers Industrier, the company's social responsibility has been ingrained in the way we run our business. This is also why Junckers joined the ten principles of the UN GLOBAL COMPACT in 2011 and our progress has been monitored in relation to every single principle in the company's CSR report ever since.





FIBA EUROBASKET 2017

## JUNCKERS SOLID HARDWOOD SPORTS FLOORS

## ALWAYS WITH AREA-ELASTIC PROPERTIES

## PREFERRED BY ATHLETES

All Junckers' sports floors perform with unique area-elastic characteristics providing the ultimate freedom of movement, protection against injury and enables the athlete to perform to the best of their abilities.

Our sports floor solutions are tested and approved in accordance with the European standard EN 14904. The solutions fulfil the requirements of class A3 and A4.

The EN 14904 standard has worldwide recognition and specifies the requirements for safety and performance for a sports floor. The standard divides the sports floors into 4 types:

1. Area-elastic floors: When a point force causes deflection over a relatively large area around the impact point (wood).
2. Point-elastic floors: When a point force causes deflection only at, or close to, the impact point (vinyl).
3. Combi-elastic floors: An area-elastic floor with a point-elastic top layer, a point force will cause both localized deflection and deflection over a wider area (wood/vinyl).
4. Mixed-elastic floors: Point-elastic floor combined with a synthetic material.

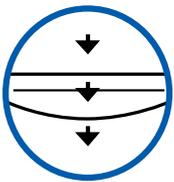
# FLOOR SAFETY AND PERFORMANCE

The standard relates to both safety and sports technical properties and the most important key factors are described below.



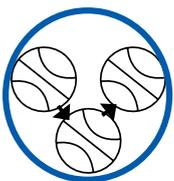
## SHOCK ABSORPTION

A shock absorbing floor minimises the risk of injuries. Testing measures the percentage of impact energy absorbed by the floor when landing a jump.



## VERTICAL DEFORMATION

The floor's ability to absorb shock depends on its ability to flex when exposed to a dynamic load. Test results display the floor's vertical deformation in mm when exposed to a dynamic impact equivalent to that of light jogging.



## BALL BOUNCE

A good ball bounce increases the ball control and the speed of the game. Test results display the rebound achieved by the floor as a percentage of the rebound measured on a concrete floor.



## FRICITION

Correct friction is important when ball players move rapidly on the floor, and the ideal friction rating is between 80 and 110. A friction value less than 80 makes the floor too smooth, and above 110 makes the floor too rough.



## ROLLING LOAD

The floor's ability to withstand rolling loads is important for example where trolleys and retractable seating are used. Test results display whether the floor can withstand a rolling load of 1,500 N (approx. 150 kgs).

## JUNCKERS OWN TEST PROGRAMME

In spite of the good intentions of the European standard, there are no demands concerning strength and durability of a sports floor. Therefore Junckers has chosen to integrate two additional internal tests for evidence of these properties.

## FATIGUE TEST

This test is conducted on all Junckers' class A4 floors. The floor is exposed to a series of controlled, dynamic point impacts of 3 kN (approx. 300 kgs) no less than 100,000 times, which efficiently simulates the equivalent of 25 years of normal use.

## POINT LOAD TESTING

The demands on the floor's ability to withstand point loads may be increased significantly when the sports floor is used for exhibitions, concerts and major sports events and where retractable seating is moved across the floor.

These demands are simply not considered by the EN Standard. Therefore, Junckers' sports floors undergo rigorous tests in order to ensure durable and versatile floors.

# CHOICE OF FLOOR BOARD

## UNCOMPROMISING QUALITY AND GOOD CRAFTSMANSHIP AS FOUNDATION

Junckers' wooden floors are made of 100 % solid hardwood. There are no intermediate layers of alternative materials in the floorboards that can come apart.

The floors have a full 22 mm thickness of hardwood, and this makes them very strong and stable.

The floorboards are made from two rows of staves assembled by means of a carefully machined double dovetail joint. A solution which uses the timber efficiently without compromising the quality.

### EASY AND FAST TO FIT

To make it easy and fast to install the floor, Junckers' sports floorboards have uniform lengths of 3700 mm and cover approx. 0.5 m<sup>2</sup>. All floorboards are tongue and groove jointed all around.

### READY TO USE WHEN FITTED

Junckers' floors are always supplied prefinished with lacquer from the factory. This makes the floor ready to use right after installation.

## JUNCKERS SOLID HARDWOOD FLOORS ARE CREATED FOR GENERATIONS OF USE

A prefinished floor eliminates the risk of human error when sanding and lacquering on site and avoids using lacquers of unknown quality.

Floors sealed with lacquer from the factory ensure high quality, and save on-site labour costs.

### SURFACE OUT OF THE ORDINARY

The lacquer used for our floors is an extremely hard-wearing polyurethane lacquer, which is applied in several coats.

Junckers' own product development team has developed this lacquer and it is produced in our own manufacturing facilities in Denmark.

### EXTREMELY STABLE AND DURABLE

We take far longer than normal over the timber drying process, and this ensures a unique indentation resistance and strength while at the same time the movements occurring naturally in the timber are fully controlled and kept to a minimum. Therefore, a Junckers sports floor causes no challenges when humidity levels change through the year.

Ask us about Junckers' drying methods and how we through the installation make sure that Junckers' sports floors can be adapted to fluctuations in the climatic conditions that naturally occurs in all types of buildings.

### LONG LIFE AND LOW COSTS OF MAINTENANCE

Our floors are easy to clean, maintain and are fully repairable.

On a daily basis the floor only requires sweeping or a machine cleaning using as little water as possible.

To protect and ensure long life of the floor we recommend occasionally a light sanding and re-sealing.

## RUNNING ACROSS A JUNCKERS SPORTS FLOOR 50-60 YEARS OLD IS NOT UNUSUAL

Double dovetail



Junckers' 22 mm thick, 129 mm wide and 3700 mm long hardwood floor board.



# FLOOR BOARD RANGE

## BEECH SYLVASPORT

Width: 129 mm

Thickness: 22 mm

Surface: Silk matt and ultra matt lacquer

A floor board with a uniform structure, white to reddish heartwood and a red-brown grain pattern.

A classic and very popular floor.

CHAMPION



PREMIUM



CLUB



## BEECH SYLVAKET

Width: 129 mm

Thickness: 22 mm

Surface: Silk matt and ultra matt lacquer

A beech floor board coloured through its full thickness. Can be sanded without loss of colour.

Adds a warm golden glow.

CHAMPION



PREMIUM



CLUB



## MAPLE

Width: 129 mm

Thickness: 22 mm

Surface: Silk matt and ultra matt lacquer

A floor board with a light colour and a very uniform grain pattern.

A very elegant floor.

CHAMPION



CLUB



## ASH

Width: 129 mm

Thickness: 22 mm

Surface: Silk matt and ultra matt lacquer

A floor board with an elegant, light appearance combined with a characteristic dark grain pattern.

Over time, the natural ageing gives ash a warm and golden glow.

CHAMPION



PREMIUM



CLUB



**CHAMPION:** Uniform look with very little colour and structural graining variation.

**PREMIUM:** Natural look with a more natural range of colour and structural graining variation.

**CLUB:** A rustic look with substantial colour and graining variation.

# FLOOR BOARD RANGE

## DESIGN WITH COLOURS | BEECH HARMONY/PREMIUM

At Junckers, we believe that creativity and a distinctive look contribute to a comfortable atmosphere in smaller group exercise rooms.

Warmer wood tones provide the ideal healing backdrop for wellness centres, yoga and pilates. More vibrant hues can offer the right amount of pizzazz for zumba and other exhilarating activities.

Combine a Junckers sports floor with colour and create a unique expression.

**WHITE BEECH**



Surface: Ultra matt lacquer

**OYSTER GREY**



Surface: Ultra matt lacquer

**TWILIGHT GREY**



Surface: Ultra matt lacquer

**SYLVARED**



Surface: Silk matt and ultra matt lacquer

**DARK COCO**



Surface: Ultra matt lacquer

**SMOOTH RUM**



Surface: Ultra matt lacquer

**SPICY PEPPER**



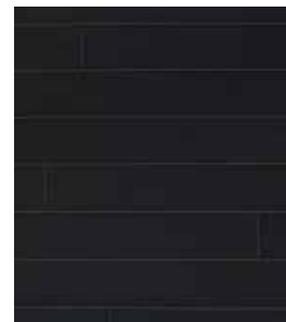
Surface: Ultra matt lacquer

**TENDER OLIVE**



Surface: Ultra matt lacquer

**BLACK OIL**



**RAW SUGAR**



Surface: Ultra matt lacquer

**WILD HAZEL**



Surface: Ultra matt lacquer

# FLOOR BOARD RANGE

## BEECH SYLVASQUASH CHAMPION

In fast games like squash and racket ball a surface with a high degree of friction is essential. For this purpose we offer an unsealed floor board with a slightly roughened 40 grit surface.

This provides the high level of friction required by the sport, while still keeping risk of injury to an absolute minimum.

The squash floor board can also be supplied with one coat of lacquer. This is by many preferred to ease the maintenance of the floor and it does not affect the friction properties.



## BEECH SYLVADANCE CHAMPION

Junckers SylvaDance sports floor creates optimal conditions in facilities where professional dance is performed.

The surface of the floor has friction properties which guarantee a reinforced grip and thus reduces the risk of injury. This provides the dancer optimal security.

These properties are achieved by a final sanding of the floor with sandpaper grit 40 + 2 coats of silk matt 2-component polyurethane lacquer.





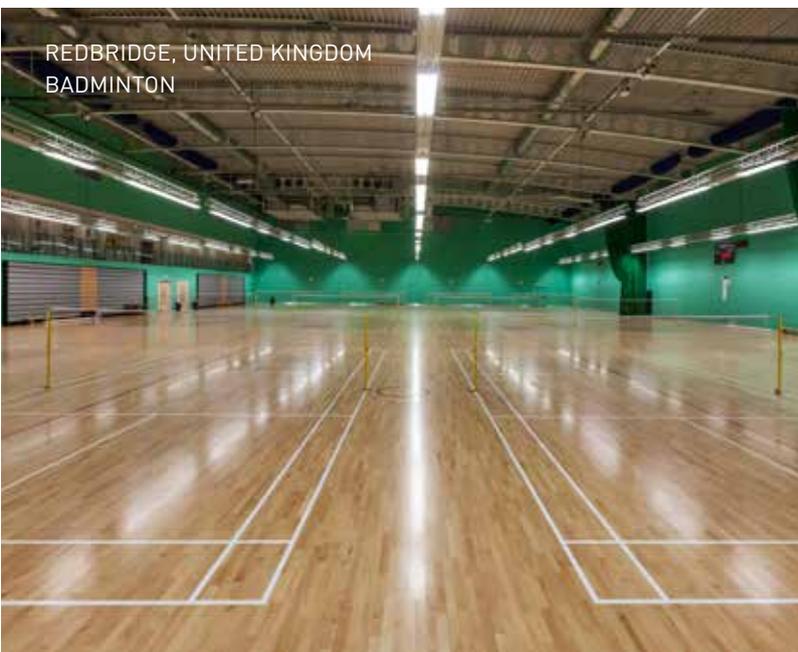
THE REGAL, UNITED KINGDOM  
BASKETBALL



GREAT NORTHERN, DENMARK  
YOGA



BALATONBOGLÁR, HUNGARY  
HANDBALL



REDBRIDGE, UNITED KINGDOM  
BADMINTON



SCENE 44, FRANCE  
DANCE AND DRAMA

# A SOLUTION FOR ALL SPORTS AND SPORT FACILITIES

Junckers has a wide range of portable and fixed floor solutions. The systems always include our 22 mm solid hardwood 2-strip floorboard.

## FIXED FLOOR SOLUTIONS

In this range we have floating and batten based floor solutions with a choice of sub-construction that meets most construction heights and performance requirements.

Total construction height of our floors ranges from 32 mm to 242 mm. We have solutions for flat and uneven sub-floors.

Junckers' floors are designed to be installed in all types of facilities.

*Our floors have been installed in community and school halls, sports centres and large arenas used for international competition such as Commonwealth, Invictus and Olympic Games.*

The flexibility of construction heights also makes our solutions very suitable for any type of refurbishment.

## PORTABLE FLOOR SOLUTIONS

This range consists of prefabricated lightweight panels, fast to assemble and dismantle.

In our portable floor range, you find solutions suitable:

- For long or short time use
- For international tournaments, which require special line-markings
- Over turf surfaces
- Over ice rinks
- Over existing soft or hard floors
- For concerts or fairs

## NAME THE SPORT AND JUNCKERS HAS THE SOLUTION



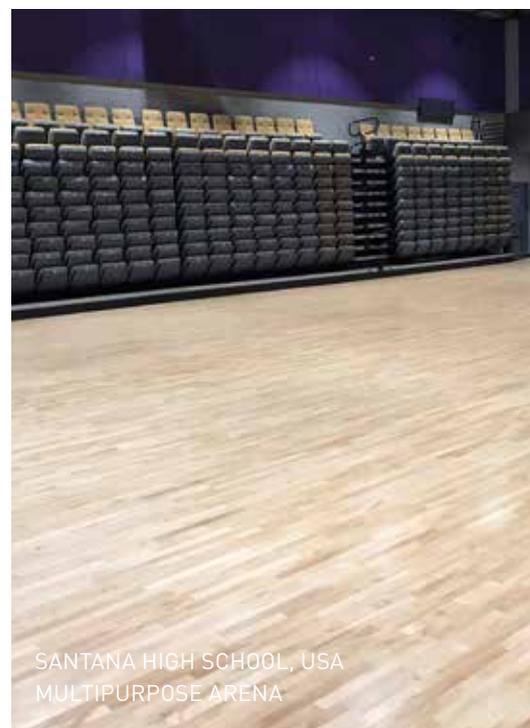
International  
Handball  
Federation



*Junckers' sports floor solutions - certified by FIBA, WHF, BWF & IHF*



GAMMEL HELLERUP GYMNASIUM, DENMARK  
MULTIPURPOSE ARENA



SANTANA HIGH SCHOOL, USA  
MULTIPURPOSE ARENA



ORANGE HEADQUARTER, POLAND  
FITNESS



CRYSTAL PALACE, ENGLAND  
MULTIPURPOSE ARENA

# CHOOSE THE RIGHT FLOOR SYSTEM

FIXED FLOOR SYSTEMS					
CONSTRUCTION HEIGHT	REQUIRED SUBFLOOR	SUB-CONSTRUCTION	SYSTEM	CLASS ACCORDING TO EN 14904	FIBA approval level
120 - 242 mm	Flat/uneven	Duobat 120+	Two layer batten system	A4	1
62 - 209 mm	Flat/uneven	Unobat 62+ with J-Lock cradle or adjustable wedge and supporting blocks included	Single layer batten system	A4	1
50 mm	Flat	Unobat 50	Single layer batten system	A4	1
45 mm	Flat	Unobat 45	Single layer batten system	A4	1
52 mm, 67 mm or 79 mm	Flat	Blubat 52, 67, 79	Single layer batten system	A3	2*
32 mm	Flat	Clip, 10 mm foam	Floating system	A3	-
37 mm	Flat	Clip, 15 mm foam	Floating system	A3	2

\*Blubat 52

PORTABLE FLOOR SYSTEMS					
CONSTRUCTION HEIGHT	REQUIRED SUBFLOOR	PRODUCT	SYSTEM	CLASS ACCORDING TO EN 14904	FIBA approval level
44 mm	Flat	Pro Complete 44	Single layer batten system	A4	1
49 mm / 34 mm on turf	Flat	Arena Master	Floating system	A3	2
32 mm	Flat	A3 Portable	Floating system	A3	-

# DUOBAT 120+

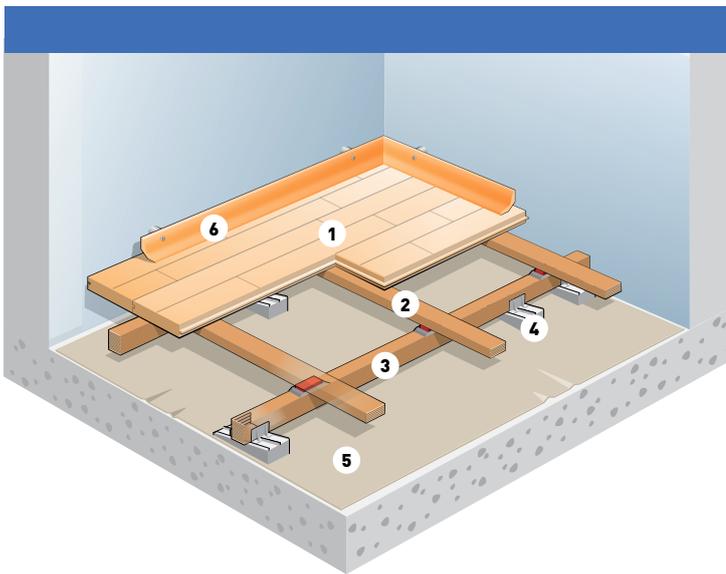


Junckers' patented adjustable and locking DuoWedge cradle.



Junckers' packing bases to increase floor height of the Unobat 62+ and Duobat 120+ system.

## SYSTEM COMPONENTS



1. 22 x 129 x 3700 mm floorboards
2. Upper batten: 25.5 x 60 x 3600 mm with pre-attached rubber shock pads
3. Lower batten: 39 x 40 x 3364 mm with pre-attached J-Lock cradle
4. Junckers DuoWedge
5. 0.2 mm SylvaThene moisture barrier
6. Combi sports skirting

The Duobat 120+ System provides the ultimate in high performance and safety, along with virtually unlimited levelling flexibility to accommodate all types of uneven subfloors.

The 22 mm solid hardwood floorboards are fastened to a subfloor system consisting of 2 layers of cross-laid engineered battens. The top batten has pre-attached resilient rubber pads that snap-lock into the lower batten's J-locks. This ensures a fast, accurate and secure connection between the upper and lower battens.

The lower batten rests in an adjustable and locking DuoWedge cradle, making it easy to correct even the most complicated subfloors into flat, ideal playing surfaces. Levelling the floor is carried out without use of nails and tools.

Packing bases, which fit the adjustable DuoWedge cradle, are available in a variety of thicknesses to easily increase the height of the floor system as needed.

## FACTS

Construction height	From 120 mm to 242 mm
Required subfloor	Flat/uneven
Performance	Area-elastic according to EN 14904 class A4
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Subconstruction	Two layer batten system
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A4	Test results
Shock absorption	≥ 55 < 75 %	63 %
Vertical deformation	≥ 2.3 < 5.0 mm	2.3 mm
Ball bounce	≥ 90 %	95 %
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	3500 N <sup>1</sup>
Point load	None	6000 N ~ 600 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

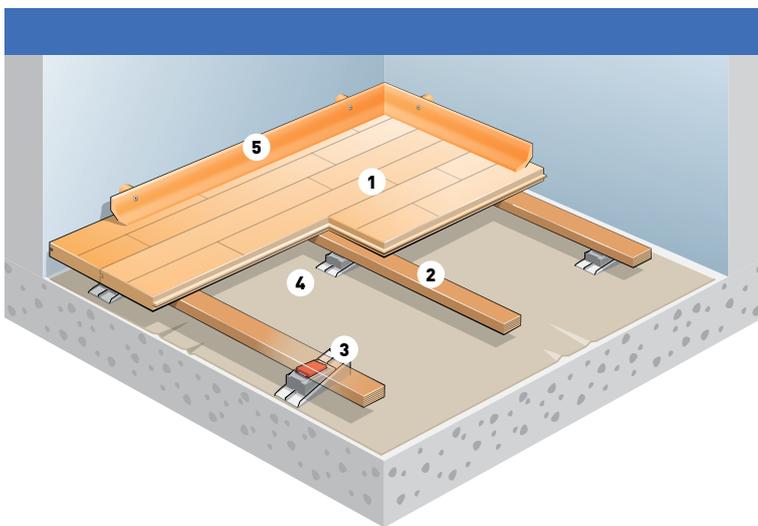
# UNOBAT 62+



Junckers' patented adjustable and locking J-Lock Wedge and batten with pre-attached shock pad.



Junckers' patented J-Lock cradle. For use on flat subfloors.



## SYSTEM COMPONENTS

1. 22 x 129 x 3700 mm floorboards
2. Batten: 25.5 x 60 x 3600 mm with pre-attached shock pads
3. Adjustable J-LockWedge
4. 0.2 mm SylvaThene moisture barrier
5. Combi sports skirting

The Unobat 62+ System provides excellent performance and safety, along with the ability to accommodate all types of irregular subfloors. The 22 mm solid hardwood floorboards are fastened to a subfloor system consisting of single layer engineered battens with pre-attached shock absorbing rubber pads.

The pre-attached rubber pads snap-lock into either a J-lock cradle, or if the floor needs to be levelled, a J-Lock adjustable wedge. The J-Lock cradle serves as a durable stop block for flat subfloors.

The J-Lock adjustable wedge allows for the quick correction of uneven subfloors into flat, ideal playing surfaces. Levelling the floor is conducted without use of nails and tools.

Packing bases fitting the adjustable J-lock Wedge are available in a variety of thicknesses to easily increase the height of the floor system as needed.

## FACTS

Construction height using the J-Lock cradle for flat sub floors	62 mm
Construction height using the adjustable J-Lock wedge and supporting blocks	From 82 mm to 209 mm
Required subfloor	Flat/uneven
Performance	Area-elastic according to EN 14904 class A4
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Subconstruction	Single layer batten system
Batten Centre C/C	Choice between 336 mm or 411 mm
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

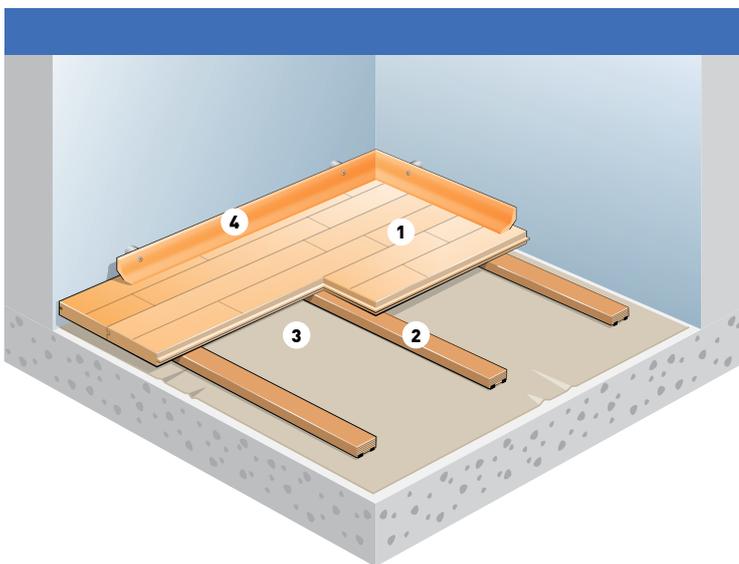
	Requirements EN 14904:A4	Batten distance c/c 411 mm	Batten distance c/c 336 mm
Shock absorption	≥ 55 < 75 %	67 %	65 %
Vertical deformation	≥ 2.3 < 5.0 mm	3.0 mm	2.6 mm
Ball bounce	≥ 90 %	93 %	94 %
Friction	≥ 80 ≤ 110	~ 85	~ 85
Rolling Load	≥ 1500 N	3000 N <sup>1</sup>	3500 N <sup>1</sup>
Point load	None	5500 N ~ 550 kgs <sup>2</sup>	6000 N ~ 600 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

# UNOBAT 50



Junckers Unobat 50 batten with two pre-attached shock absorbing foam strips.



## SYSTEM COMPONENTS

1. 22 x 129 x 3700 mm floorboards
2. Batten: 28 x 45 x 3600 mm, shock absorbing foam strips included
3. 0.2 mm SylvaThene moisture barrier
4. Combi sports skirting

The Unobat 50 sports floor is a high performance batten based system designed for use over flat subfloors.

The 22 mm solid hardwood floorboards are fastened to a resilient subfloor consisting of single layer engineered battens with pre-attached special designed shock absorbing foam strips.

The shock absorbing foam strips are inset into a "U" shaped channel on the underside of the batten. This design creates a built-in stop block, ensuring the long-term resilience of the system.

## FACTS

Construction height	50 mm
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A4
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Subconstruction	Single layer batten system
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A4	Test results
Shock absorption	≥ 55 < 75 %	64 %
Vertical deformation	≥ 2.3 < 5.0 mm	2.9 mm
Ball bounce	≥ 90 %	96 %
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	3500 N <sup>1</sup>
Point load	None	6000 N ~ 600 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

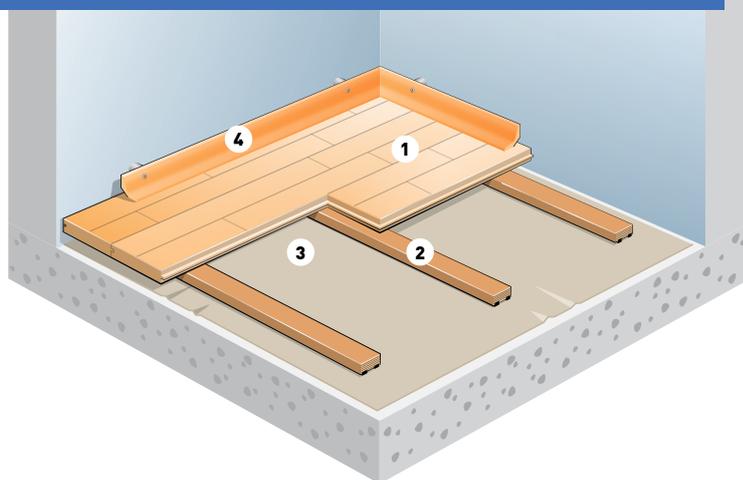
# UNOBAT 45



Junckers Unobat 45 batten with two pre-attached shock absorbing foam strips.

## SYSTEM COMPONENTS

1. 22 x 129 x 3700 mm floorboards
2. Batten: 23 x 45 x 3600 mm, foam strips included
3. 0.2 mm SylvaThene moisture barrier
4. Combi sports skirting



The Unobat 45 System is a low profile, high performance batten based system. It is designed for use over flat subfloors.

The 22 mm solid hardwood floorboards are fastened to a resilient subfloor system consisting of single layer engineered battens with pre-attached neoprene shock absorbing strips.

The shock absorbing strips are inset into a "U" shaped channel on the underside of the batten. This design creates a built-in stop block, ensuring the long-term resilience of the system.

## FACTS

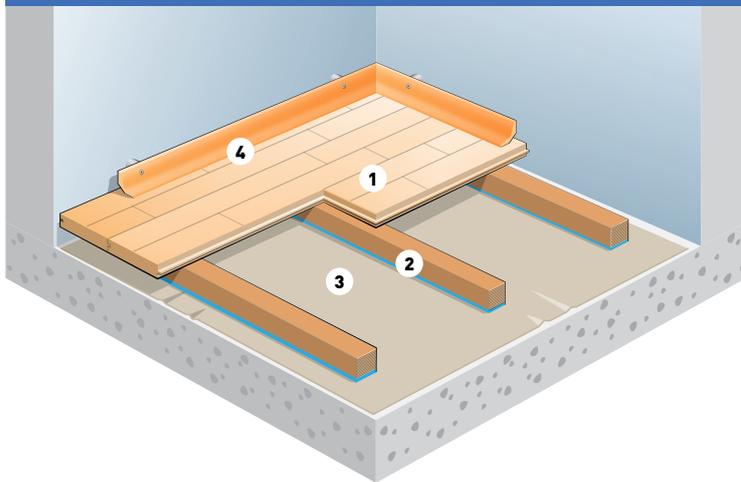
Construction height	45 mm
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A4
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Subconstruction	Single layer batten system
Batten centre, c/c	Choice between 336 mm or 411 mm
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A4	Batten distance c/c 411 mm	Batten distance c/c 336 mm
Shock absorption	≥ 55 < 75 %	60 %	60 %
Vertical deformation	≥ 2.3 < 5.0 mm	3.0 mm	2.5 mm
Ball bounce	≥ 90 %	95 %	95 %
Friction	≥ 80 ≤ 110	~ 85	~ 85
Rolling Load	≥ 1500 N	3000 N <sup>1</sup>	3500 N <sup>1</sup>
Point load	None	5500 N ~ 550 kgs <sup>2</sup>	6000 N ~ 600 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

# BLUBAT 52-67-79

## SYSTEM COMPONENTS



1. 22 x 129 x 3700 mm floorboards
2. Batten: 30/45/57 x 45 x 2400 mm, foam included
3. 0.2 mm SylvaThene moisture barrier
4. Combi sports skirting

The Blubat family is a batten based system that offers a range of floor heights when matching existing slab recesses. Blubat battens offer a good value price point and are designed for use over flat subfloors.

The 22 mm solid hardwood floorboards are fastened to a resilient subfloor system consisting of single layer engineered battens fitted with a continuous layer of blue, shock absorbing foam.

The available batten thicknesses are 30 mm, 45 mm and 57 mm.

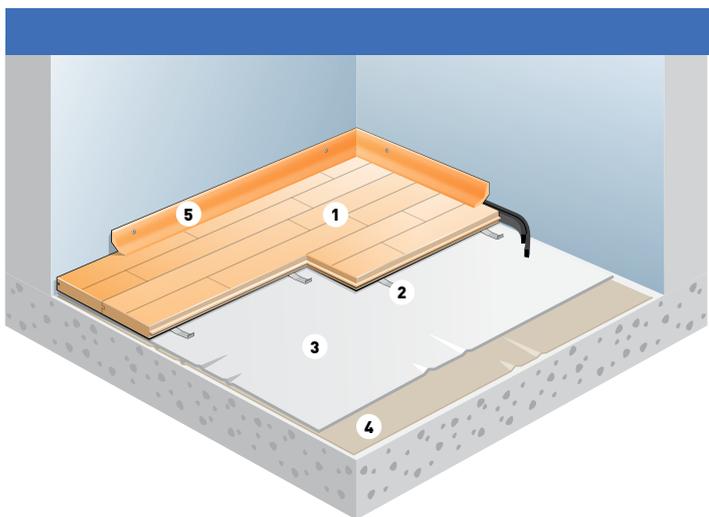
## FACTS

Construction height	Choice between 52 mm, 67 mm, 79 mm
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A3
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Subconstruction	Single layer batten system
Batten centre c/c	Choice between 336 mm or 411 mm
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A3	Batten distance c/c 411 mm	Batten distance c/c 336 mm
Shock absorption	≥ 40 < 55 %	57 %	54 %
Vertical deformation	≥ 1.8 < 3.5 mm	2.1 mm	2.0 mm
Ball bounce	≥ 90 %	95 %	97 %
Friction	≥ 80 ≤ 110	~ 85	~ 85
Rolling Load	≥ 1500 N	3000 N <sup>1</sup>	3500 N <sup>1</sup>
Point load	None	5000 N ~ 500 kgs <sup>2</sup>	5500 N ~ 550 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

# CLIP FLOORS



## SYSTEM COMPONENTS

1. 22 x 129 x 1830/3700 mm floorboards
2. Steel Clips
3. Junckers Sports Foam
4. 0.2 mm SylvaThene moisture barrier
5. Combi sports skirting

The Clip System is a low profile, floating sports flooring system, designed for installations over all types of flat subfloors. This system is ideal for refurbishment projects, or when the finished floor height must be kept to an absolute minimum.

The 22 mm solid hardwood floorboards are joined together with Junckers Steel Clips, which allow for unique independent floor board flexing. The floor floats over a 10 mm or 15 mm performance foam underlay for maximum resilience.

Since there are no nails used in the Clip System, the floor system can be taken up and reinstalled elsewhere if ever needed.

## FACTS

Construction height	32 mm / 37 mm
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A3
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Subconstruction	Floating floor system
Underlay	10/15 mm Sports Foam
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A3	Test results*
Shock absorption	≥ 40 < 55 %	46 %
Vertical deformation	≥ 1.8 < 3.5 mm	2.4 mm
Ball bounce	≥ 90 %	98 %
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	2500 N <sup>1</sup>
Point load	None	4000 N ~ 400 kgs <sup>2</sup>

\*10 mm foam

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

# ACCESSORIES - FIXED FLOORS

ENSURE THE PERFECT FINISH AND FUNCTIONALITY OF YOUR SPORTS FLOOR



## SPORT SKIRTING

Junckers Combi Sport Skirting can be installed with or without ventilation of the sub floor.

The skirting can be installed either way up, to provide maximum height or maximum cover.

Use steel fittings up against the wall when ventilation of the subfloor is needed and omit the steel fittings where ventilation is not required.

Dimension: Height 48 mm x width 38 mm.



## BUSHINGS AND SUCTION CUPS

To ensure optimum flexibility of the sports floor, Junckers offers a range of bushings allowing fast and efficient changes of court layout from e.g. handball to badminton or volleyball.

Junckers' bushings are available in 3 different dimensions: Inner/outer diameter: 75/95 mm, 106/126 mm, 150/170 mm.

Junckers' suction cups make removal of the bushing lid easy.



## JUNCKERS' PNEUMATIC NAILER AND J-NAILS

Make sure the floor is installed correctly. Junckers' pneumatic nailer and special J-nails ensure easy and fast installation of batten floors.



## SYLVATHENE MOISTURE BARRIER

To ensure a safe and fast installation Junckers offers an extra wide 0.2 mm PE-membrane. The PE-membrane has a width of 4 metres, and on the membrane is shown a marking line, which clearly indicates where the overlap has to be. It is manufactured in a recyclable material in consideration of the environment.



## SPORTS FOAM

Provide the ideal level of shock absorption and resilience with Junckers' performance Sports Foam.

Choose between 10 and 15 mm sports foam depending on system type and/or required performance.



## SPACERS

Ensure that the sports floor is installed correctly, with the right 10 board measurement. We have a range of spacers matching any indoor climate.

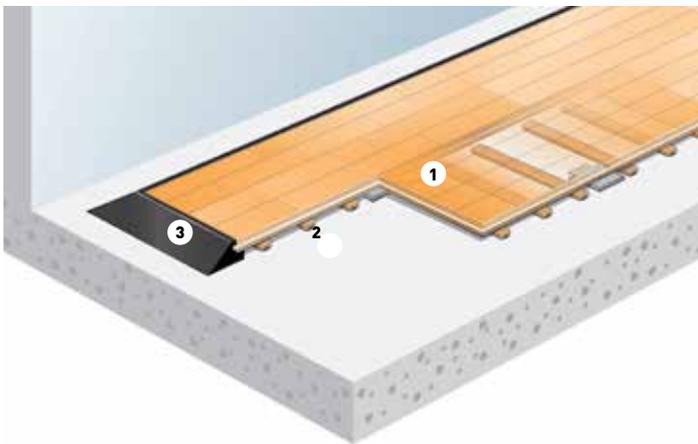
# PRO COMPLETE 44



A transition ramp around the floor provides a strong, protective and firm edge to the perimeter.

Available for ProComplete 44 and Arena Master.

## SYSTEM COMPONENTS



1. Floor panels:
  - Full size panel: 517.5 x 1800 mm
  - Half size panel: 517.5 x 900 mm
2. Prefixed battens:
  - 18 x 70 mm engineered birch battens
3. Black painted transition ramp

The Pro Complete 44 Portable Sports Floor comprises of 22 mm solid hardwood floorboards preassembled into lightweight, easy to handle panels.

Underneath each floor panel several prefixed birch battens are mounted together with a soft polyurethane foam to provide correct shock absorption and resilience.

The floor panels are easily locked into position by means of factory-fitted metal brackets.

Lengthwise the panels have a tongue and groove connection and at ends the panels are joined using loose tongues.

Pro Complete 44 tolerates larger fluctuations in relative humidity and is therefore suitable for long term use.

## FACTS

Construction height	44 mm
Required subfloor	Self-supporting subfloor of concrete/lightweight concrete Existing hard area elastic floors
Performance	Area-elastic according to EN 14904 class A4
Floorboard type	Prefinished 22 mm solid hardwood parquet
Panel size	Full size panel 0.93 m <sup>2</sup> - Half size panel 0.47 m <sup>2</sup>
Panel weight	Full size panel 18,5 kgs - Half size panel 9,4 kgs
Subconstruction	Single layer batten system
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

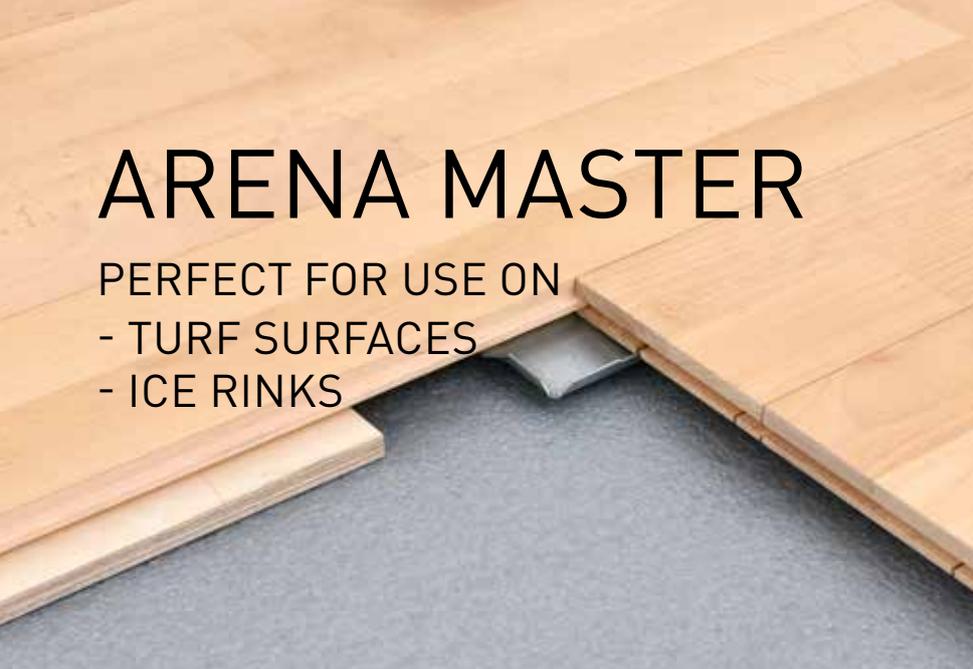
	Requirements EN 14904:A4	Test results
Shock absorption	≥ 55 < 75 %	60 %
Vertical deformation	≥ 2.3 < 5.0 mm	3.3 mm
Ball bounce	≥ 90 %	95%
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	3000 N <sup>1</sup>
Point load	None	5000 N ~ 500 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

# ARENA MASTER

PERFECT FOR USE ON

- TURF SURFACES
- ICE RINKS

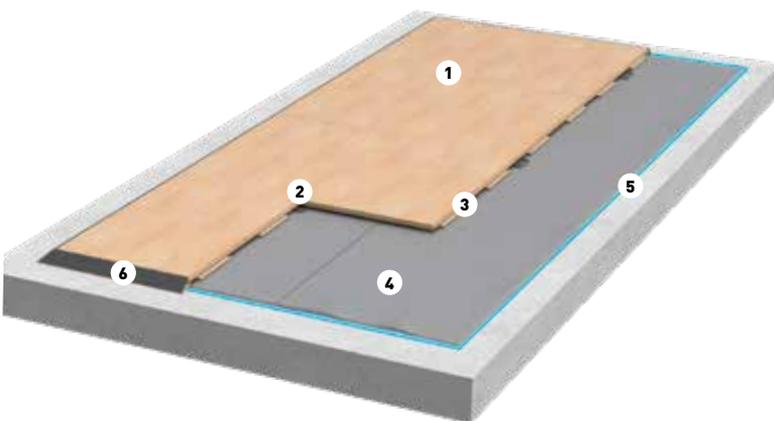


Each floor panel is easily locked into position by means of factory fitted metal brackets.



Lengthwise the panels have a tongue and groove connection and at ends the panels are joined using loose tongues.

## SYSTEM COMPONENTS



1. Floor panels:
  - Full size panel: 517.5 x 1800 mm
  - Half size panel: 517.5 x 900 mm
2. Assembly brackets
3. Plywood birch sheets
4. Junckers 15 mm Sports Foam
5. Moisture barrier on concrete: 0.2 mm SylvaThene moisture barrier
6. Black painted transition ramp

The Arena Master Portable Sports Floor comprises of 22 mm solid hardwood floorboards, prefabricated into lightweight panels.

Each floor panel is easily locked into position by means of factory fitted metal brackets. Lengthwise the panels have a tongue and groove connection and at ends the panels are joined using loose tongues.

Underneath each floor panel is fitted four sheets of birch plywood, 12 mm thick. These give the panels a great deal of strength and durability. The panels are reinforced in each end with aluminum profiles.

The panels are installed on top of a 15 mm polyethylene foam layer to provide the correct amount of shock absorption and resilience.

Arena Master tolerates larger fluctuations in relative humidity and is therefore suitable for long term use.

## FACTS

Construction height	49 mm / 34 mm turf
Required subfloor	Self-supporting subfloor of concrete/lightweight concrete Existing hard floors Soft surfaces / point elastic floors like rubber or vinyl
Performance	Area-elastic according to EN 14904 class A3
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Panel size	Full size panel 0.93 m <sup>2</sup> - Half size panel 0.47 m <sup>2</sup>
Panel weight	Full size panel 19.7 kgs - Half size panel 9.9 kgs
Subconstruction	Prefixed birch plywood, 12 mm
Underlay	15 mm Sports Foam
Junckers' 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A3	Test results
Shock absorption	≥ 40 < 55 %	50 %
Vertical deformation	≥ 1.8 < 3.5 mm	2.1 mm
Ball bounce	≥ 90 %	98 %
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	3000 N <sup>1</sup>
Point load	None	5000 N - 500 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.

# PORTABLE A3

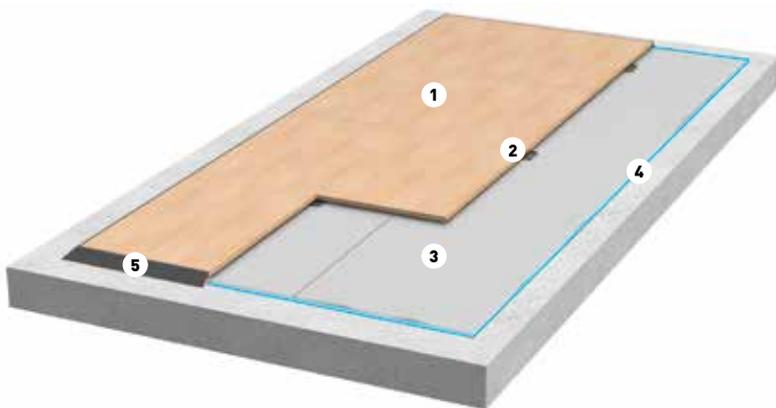


Each floor panel is easily locked into position by means of factory fitted metal brackets.



Lengthwise the panels have a tongue and groove connection and at ends the panels are joined using loose tongues.

## SYSTEM COMPONENTS



1. Floor panels:
  - Full size panel 513 x 1800 mm
  - Half size panel 513 x 900 mm
2. Assembly brackets
  - Prefixed metal brackets
3. Intermediate layer
  - Junckers 10 mm Sports Foam
4. SylvaThene Moisture barrier on concrete
  - 0.20mm PE-membrane
5. Transition ramp
  - Black painted aluminium

The Portable A3 Sports Floor comprises of 22 mm solid hardwood floorboards, pre-assembled into lightweight, easy to handle panels. The floor is installed floating over a performance Sports Foam underlay.

Each floor panel is easily locked securely into position with a factory fitted metal fixing plate. Lengthwise the panels have a tongue and groove connection and at ends the panels are joined using loose tongues.

Junckers 10 mm performance Sports Foam underlay provides the ideal level of shock absorption and resilience.

### Timeframe for use:

Recommended for short time use up to 10 days. For long time use, we recommend the Arena Master or Pro Complete 44 system.

## FACTS

Construction height	32 mm
Required subfloor	Self-supporting subfloor of concrete/lightweight concrete Existing hard / area elastic floors Soft surfaces / point elastic floors like rubber or vinyl
Performance	Area-elastic according to EN 14904 class A3
Floorboard type	Prefinished 22 mm 2-strip solid hardwood
Panel size	Full size panel 0.92 m <sup>2</sup> - Half size panel 0.46 m <sup>2</sup>
Panel weight	Full size panel 15 kgs - Half size panel 7.5 kgs
Subconstruction	Floating floor system
Underlay	10 mm Sports Foam
Sanding and re-sealing	Yes, to bare wood 8-10 times
Suitable for underfloor heating	Yes

	Requirements EN 14904:A3	Test results
Shock absorption	≥ 40 < 55 %	46 %
Vertical deformation	≥ 1.8 < 3.5 mm	2.0 mm
Ball bounce	≥ 90 %	99 %
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	2500 N <sup>1</sup>
Point load	None	4000 N - 400 kgs <sup>2</sup>

1) Junckers' test with solid rubber wheels: Width 50 mm, diameter 100 mm.  
2) Junckers' test with 100x100 mm point load.



RHEINSTAR  
GERMANY

# ACCESSORIES - PORTABLE FLOORS



## PROTECT THE PERIMETER OF THE FLOOR

Junckers' supporting and protecting transition ramp forms a strong edge for the perimeter of the floor.



## EASY TRANSPORTATION AND STORAGE

Junckers' custom designed storage carts make transportation and storage of the panels easy. One cart stores 40 panels.



## INSTALL TWICE AS FAST

For faster and more flexible installation ask for Junckers CenterRow Panels that makes two way installation possible.



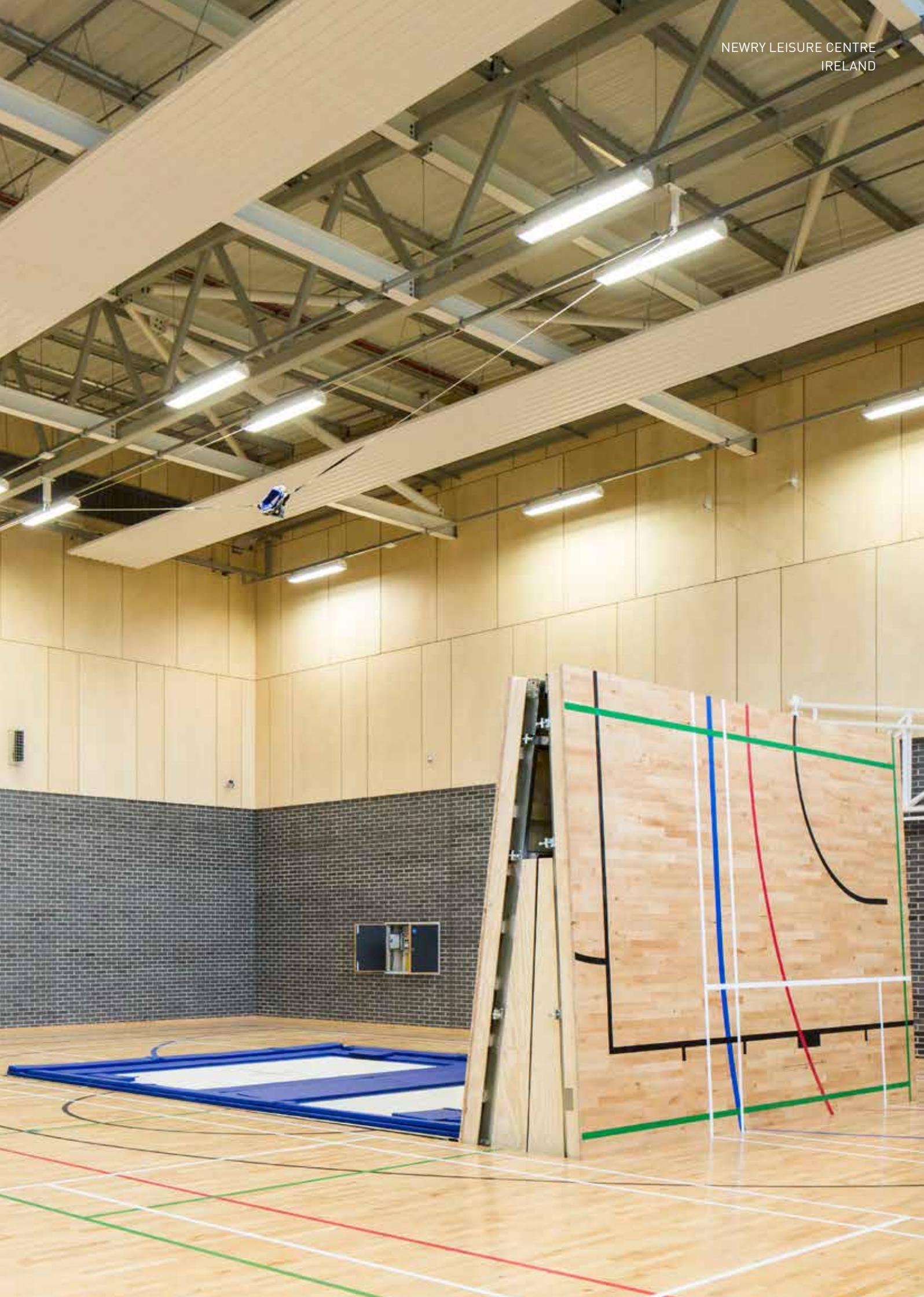
# 30 YEARS WITH UNDERFLOOR HEATING

## JUNCKERS' SPORTS FLOORS ARE GUARANTEED FOR USE WITH UNDERFLOOR HEATING

A Junckers solid hardwood floor is the natural choice for the reassuring comfort of under floor heating.

Our wooden floors have for many years been recognised by clients, architects and the heating industry as the only type of solid hardwood floors on the market so stable that they can be guaranteed for use with under floor heating. This has been a fact for almost 30 years.

The unique stability is achieved by drying the timber in a very uniform way and manufacturing the floorboards with a precision that only allows machining deviations within very narrow tolerances.





PIONIR, SERBIA



TUROW ZGORZELEC, POLAND



THE REGAL, UNITED KINGDOM

## LINE MARKING PAINT

### ONLY IMAGINATION SETS A LIMIT

A sports floor does not come alive until it has been given the colour and excitement of the sports that are played on it. Painted sports lines help to achieve this, and the clubs own logo adds unique personal style to the floor and adds to the audiences experience.

For this purpose Junckers manufactures its own range of line marking paints. Junckers HP SportsLine is tested and approved according to the European sport standard EN 14904. It is very hard-wearing and available in white, red, green, blue, yellow and black.

The colours can be mixed to create other colour shades, and for big events, such as Euro basket 2017, Junckers has developed several colours to match exactly the colour palette for this competition.



# CLEANING AND MAINTENANCE

## GET A FLOOR WITH LOW COSTS OF MAINTENANCE

Junckers' sports floors are always supplied pre finished with several coats of a long lasting and very hardwearing polyurethane lacquer. Maintenance of the floor can therefore be kept to a minimum.

### DAILY CLEANING IS EASY

Sweeping or using a cleaning machine with as little water as possible is more than enough to keep the floor in good shape on a daily basis.

For activities leaving more difficult stains, e.g. handball, we offer a range of maintenance products – such as resin remover, degreaser and mild soap products designed to leave no residue.

### WHEN RENOVATING, ONLY A LIGHT SCREENING IS NECESSARY

We have developed and produce our own sports lacquer for re-sealing. The lacquer HP Sport is approved for sports use in accordance with the European standard EN 14904 and has a high ability to bond with the existing surface.

This means that only a light screening of the floor is needed before applying one coat of Junckers HP Sport.

Should years of very hard wear demand more comprehensive renovation, it is possible to sand the floor down to do a complete restoration. This is actually possible to do 8-10 times, but if maintenance of a sports floor is done on a regular basis, sanding down to bare wood is seldom necessary.

## JUNCKERS' MAINTENANCE PRODUCTS CONTRIBUTE TO LONG LASTING SPORTS FLOORS



# JUNCKERS PROJECT SERVICE

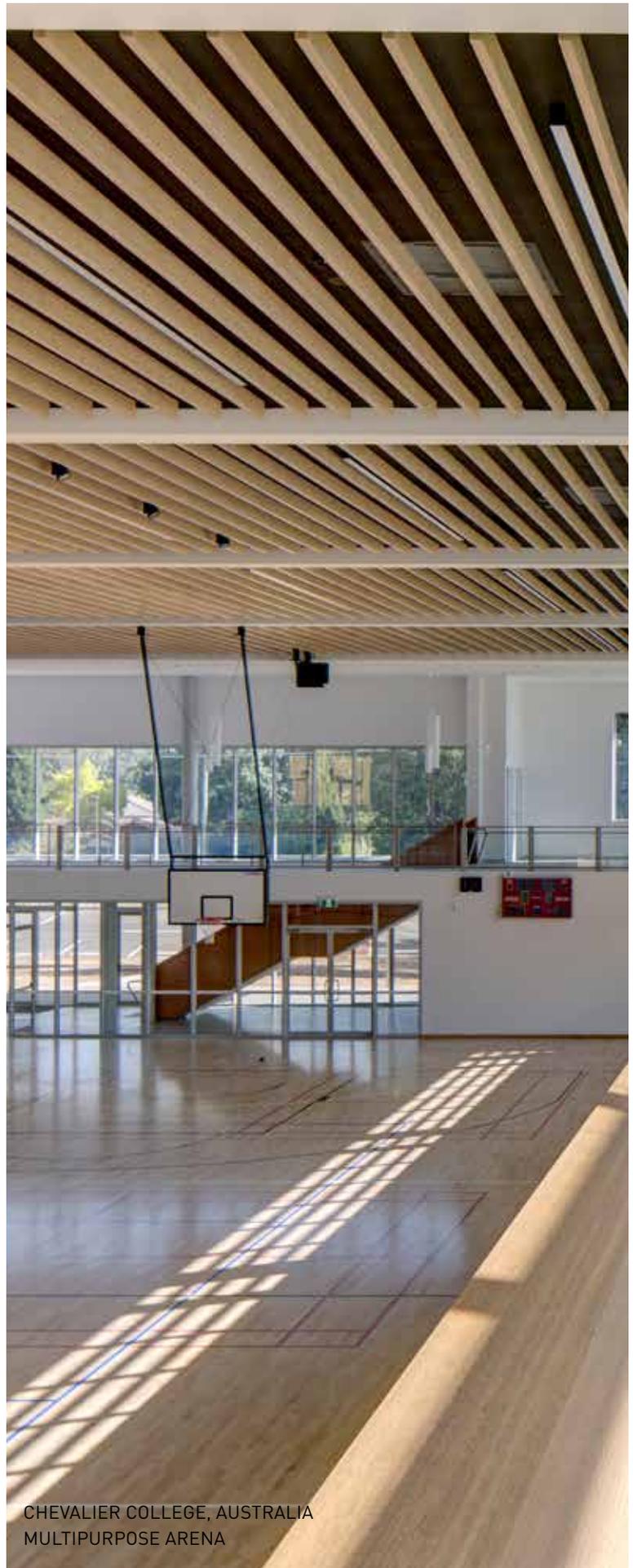
## WE PROVIDE SECURITY

We know how important it is to the success of a building project that delivery is on time and all quality standards are met. Accurate and reliable advice from the supplier is an important factor in connection with a large investment such as a solid hardwood floor.

With Junckers Project Service a person from our technical team is dedicated to your project and will provide advice and support before, during and after delivery of your order.

This gives a high level of security and confidence. It minimises the risk of mistakes in connection with the completion of the work and ensures that the project is handled with optimal cost and time efficiency.

For more information about Junckers Project Service please contact one of our local sales managers.



CHEVALIER COLLEGE, AUSTRALIA  
MULTIPURPOSE ARENA



# JUNCKERS

Performing on Danish design