

SPORTS FLOORS

for all indoor sports
and sport facilities



JUNKERS

Performing on Danish design

JUNKERSHARDWOOD.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 facilities, to global landmark venues for Olympic and professional sport.

Junckers is the only wood floor manufacturer to develop and manufacture its own range of urethanes 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.

CONTENT

4	SUSTAINABILITY, ENVIRONMENT AND PRODUCT QUALITY
7	FLOOR SAFETY AND PERFORMANCE
8	CHOICE OF FLOOR BOARD
13	A SOLUTION FOR ALL SPORTS AND SPORT FACILITIES
14	OVERVIEW FLOOR SYSTEMS
16	PERMANENT FLOOR SYSTEMS
23	ACCESSORIES - PERMANENT FLOORS
24	PORTABLE FLOOR SYSTEMS
27	ACCESSORIES - PORTABLE FLOORS
28	30 YEARS WITH UNDERFLOOR HEATING
29	CLEANING AND MAINTENANCE
30	LINEMARKING PAINT
31	JUNCKERS PROJECT SERVICE



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 CO₂ 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 CO₂-neutral material, and because Junckers generates more energy than the business itself can consume, the energy surplus is used to produce CO₂-neutral electricity, which benefits society. That makes Junckers a CO₂-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 organizations 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 hardwood 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 CO₂ foot 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.

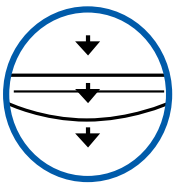
FLOOR SAFETY AND PERFORMANCE

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



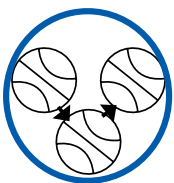
SHOCK ABSORPTION

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.



FRICTION

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 7/8" (22) mm thickness of hardwood, and this makes them very strong and stable.

The floor boards 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 INSTALL

To make it easy and fast to install the floor, Junckers' sports floor boards have uniform lengths of 12' (3700 mm)* and cover approx. 5 SF (0.5 m²). All floor boards are tongue and groove jointed all around.

READY TO USE WHEN INSTALLED

Junckers' floors are always supplied prefinished with urethane 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 finishing on site and avoids using urethane of unknown quality.

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

SURFACE OUT OF THE ORDINARY

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

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

EXTREMELY STABLE AND DURABLE

We take far longer than normal over the drying process to ensure that the movements occurring naturally in wood are fully controlled and kept to a minimum. Therefore a Junckers sports floor is more stable 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 7/8" (22) mm thick, 5" (129) mm wide and 12' (3700) mm long hardwood floor board.

* Also available in length of 1830 mm



FLOOR BOARD RANGE

BEECH SYLVASPORT

Width: 5" (129 mm)

Thickness: 7/8" (22 mm)

Beech is Junckers' hallmark floor. It is a floor board with a uniform structure, white to reddish heartwood and a red-brown grain pattern. A classic and very popular floor.

CHAMPION | CLASSIC



PREMIUM | HARMONY



CLUB | VARIATION



BEECH SYLVAKET

Width: 5" (129 mm)

Thickness: 7/8" (22 mm)

A Beech floor board colored through its full thickness. Can be sanded without loss of color. Adds a warm golden glow.

CHAMPION | CLASSIC



PREMIUM | HARMONY



CLUB | VARIATION



ASH

Width: 5" (129 mm)

Thickness: 7/8" (22 mm)

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 | CLASSIC



PREMIUM | HARMONY



CLUB | VARIATION



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

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

CLUB: A rustic look with substantial color and graining variation.

FLOOR BOARD RANGE

DESIGN WITH COLORS

At Junckers, we believe that creativity and a distinctive look contribute to a comfortable atmosphere.

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 color and create a unique expression.

Colored beech sports floors in Harmony grade, in both 6' and 12' lengths are available in combination with all Junckers' subfloor systems.

WHITE BEECH



OYSTER GREY



TWILIGHT GREY



SYLVARED



DARK COCO



SMOOTH RUM



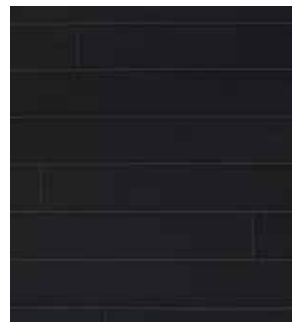
SPICY PEPPER



TENDER OLIVE



BLACK OIL



RAW SUGAR



WILD HAZEL



FLOOR BOARD RANGE

BEECH SYLVASQUASH CHAMPION

In fast games like squash and racquetball, 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 urethane. 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 sanding the floor then sealing it with two coats of a 2-component urethane.





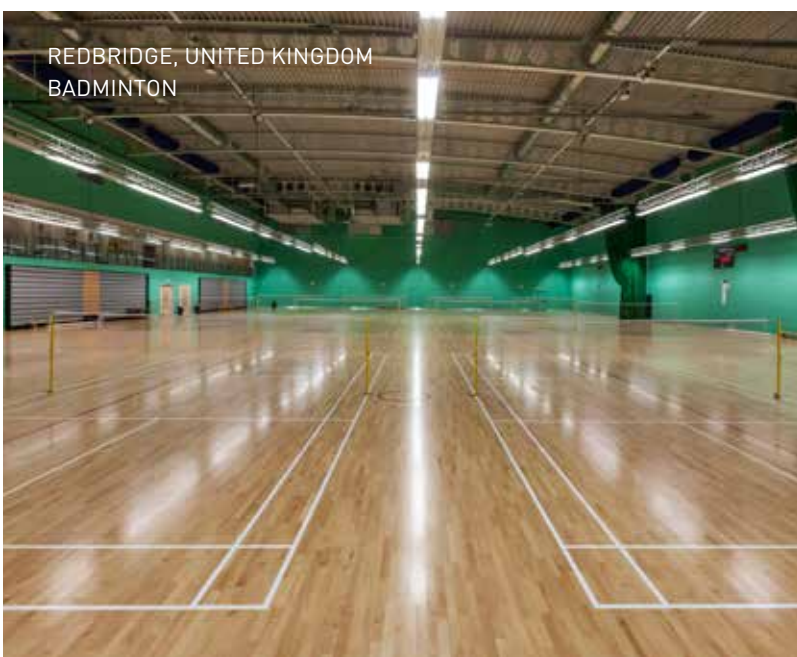
THE REGAL, UNITED KINGDOM
BASKETBALL



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 permanent floor solutions. The systems always include our 7/8" solid hardwood top surface.

PERMANENT FLOOR SOLUTIONS

In this range we have floating and sleeper 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 1 1/4" to 9 1/2". 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 ideal for renovation projects.

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 JUNKERS HAS THE SOLUTION



International
Handball
Federation

**WORLD
SQUASH**

ACCREDITED
PRODUCT 2022
SylvaSquash Flooring System



FIBA
APPROVED
EQUIPMENT

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



GAMMEL HELLERUP GYMNASIUM, DENMARK
MULTIPURPOSE ARENA



LIFETIME FITNESS, USA
MULTIPURPOSE ARENA



THE BOXING CLUB, USA
FITNESS



CRYSTAL PALACE, ENGLAND
MULTIPURPOSE ARENA

CHOOSE THE RIGHT FLOOR SYSTEM

PERMANENT FLOOR SYSTEMS					
TOTAL FLOOR SYSTEM THICKNESS	REQUIRED SUBFLOOR	SUB-CONSTRUCTION	SYSTEM	CLASS ACCORDING TO EN 14904	FIBA approval level
Minimum 4 3/4" (120mm) Maximum 9 5/8" (242mm)	Flat/irregular	Duobat 120+	Two layer sleeper system	A4	1
2 3/8" - 8 1/4" (62-209 mm)	Flat/irregular	Unobat 62+ with J-Lock cradle or adjustable wedge and supporting blocks included	Single layer sleeper system	A4	1
2" (50 mm)	Flat	Unobat 50	Single layer sleeper system	A4	1
1 3/4" (45 mm)	Flat	Unobat 45	Single layer sleeper system	A4	1
2 1/8" (52 mm), 2 5/8" (67 mm), 3 1/8" (79 mm)	Flat	BluBAT 52, 67, 79	Single layer sleeper system	A3	2*
1 1/4" (32 mm)	Flat	Clip, 3/8" (10 mm) foam	Floating system	A3	-
1 1/2" (37 mm)	Flat	Clip, 19/32" (15 mm) foam	Floating system	A3	2
3/4"	Flat	Studio Floor	Performance sport foam / steel clips	-	-
2 5/8", 2 3/8", 2 1/4", 2"	Flat	ProElite	2-Layers Plywood Decking and Conical Pads	-	-

*Blubat 52

PORTABLE FLOOR SYSTEMS					
CONSTRUCTION HEIGHT	REQUIRED SUBFLOOR	PRODUCT	SYSTEM	CLASS ACCORDING TO EN 14904	FIBA approval level
1 3/4" (44 mm)	Flat, dry, structurally sound	Pro Complete 44	Single layer sleeper system	A4	1
1 7/8" (49 mm) / 1 3/8" (34 mm) over turf	Flat	Arena Master	Floating system	A3	2
1 1/4" (32 mm)	Flat	A3 Portable	Performance sport foam / metal brackets	A3	-

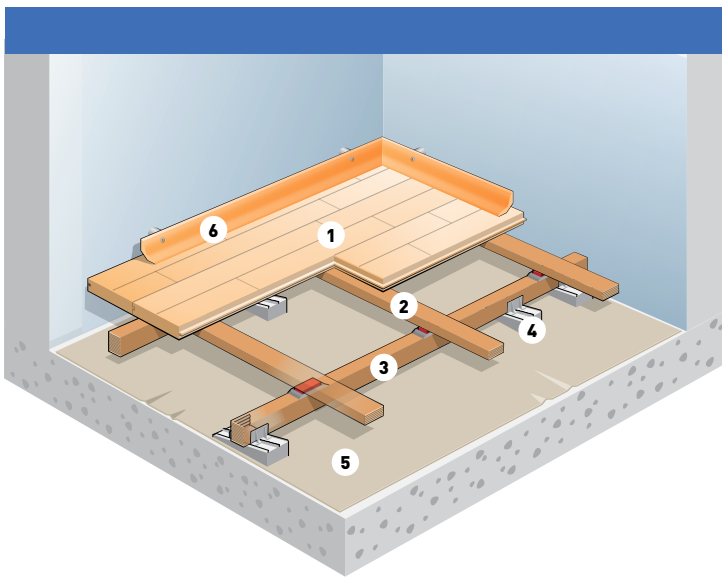
DUOBAT 120+



Junckers patented adjustable and locking DuoWedge cradle.



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



SYSTEM COMPONENTS

1. 7/8" (22 mm) x 5" (129 mm) x 12' (3700 mm) solid hardwood
2. Upper sleepers: 1" (25.5 mm) x 2 3/8" (60 mm) x 11' 9" (3600 mm) with rubber shock pad
3. Lower sleepers: 1 1/2" (39 mm) x 1 1/2" (40 mm) x 11' (3364 mm) with J-Lock cradle
4. Junckers DuoWedge
5. Polythene moisture barrier
6. Beech Sport Wall Base

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

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

The lower sleeper rests in our patented DuoWedge cradle, making it easy to correct even the most complicated subfloors into flat, ideal playing surfaces.

Support blocks are available in a variety of thicknesses to easily increase the height of the floor system as needed.

FACTS

Construction height	Minimum 4 3/4" (120 mm) Maximum 9 5/8" (242 mm)
Required subfloor	Flat or irregular
Performance	Area-elastic according to EN 14904 class A4
Hardwood type	Prefinished 7/8" (22 mm) solid hardwood
System construction	Double layer sleeper system
Junckers 25 years fatigue test	✓
Sanding and re-sealing	Yes to bare wood 8-10 times
Compatible with radiant heating	Yes

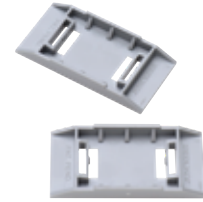
	Requirements EN 14904:A4	Test results
Shock absorption	≥ 55 < 75 %	63 %
Vertical deformation	≥ 2.3 < 5.0 mm	2.3 mm
Ball bounce	≥ 90 %	95%
Friction	≥ 80 ≤ 110	~ 85
Rolling Load	≥ 1500 N	3500 N ¹
Point load	None	6000 N ~ 600 kgs ²

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junckers test with 4" x 4" (100x100 mm) point load.

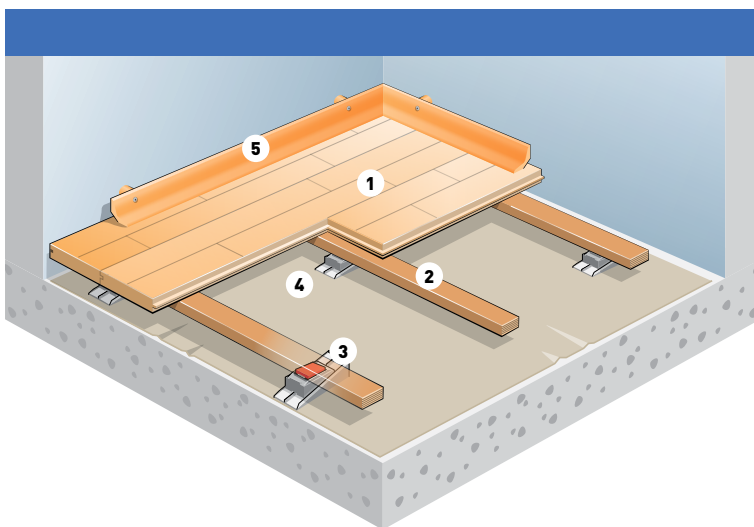
UNOBAT 62+



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. 7/8" (22 mm) x 5" (129 mm) x 12' (3700 mm) solid hardwood
2. Unobat 62+ sleeper: 1" (25.5 mm) x 2 3/8" (60 mm) x 11' 9" (3600 mm) with shock pad
3. J-LockWedge
4. Polythene moisture barrier
5. Beech Sport Wall Base

The Unobat 62+ System provides excellent performance and safety, along with the ability to accommodate all types of irregular subfloors.

The top solid hardwood is fastened to a resilient subfloor system consisting of 12' long, ply-construction sleepers with pre-attached shock absorbing pads. The pre-attached pads snap-lock into either a J-lock cradle, or if the floor needs to be leveled, a J-Lock escalating wedge.

The J-Lock cradle serves as a durable stop block for flat subfloors. The J-Lock escalating wedge allows for the quick correction of uneven subfloors into flat, ideal playing surfaces.

Support blocks 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	2 3/8" (62 mm)
Construction height using the adjustable J-Lock wedge and supporting blocks	From 3 1/4" – 8 1/4" (82-209 mm)
Required subfloor	Flat or irregular
Performance	Area-elastic according to EN 14904 class A4
Hardwood type	Prefinished 7/8" (22 mm) solid hardwood
System construction	Single layer sleeper
Sleeper spacing	Either 13 1/4" (336 mm) or 16 3/16" (411 mm)
Junckers 25 years fatigue test	✓
Sanding and re-sealing	Yes to bare wood 8-10 times
Compatible with radiant 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 ¹	3500 N ¹
Point load	None	5500 N ~ 550 kgs ²	6000 N ~ 600 kgs ²

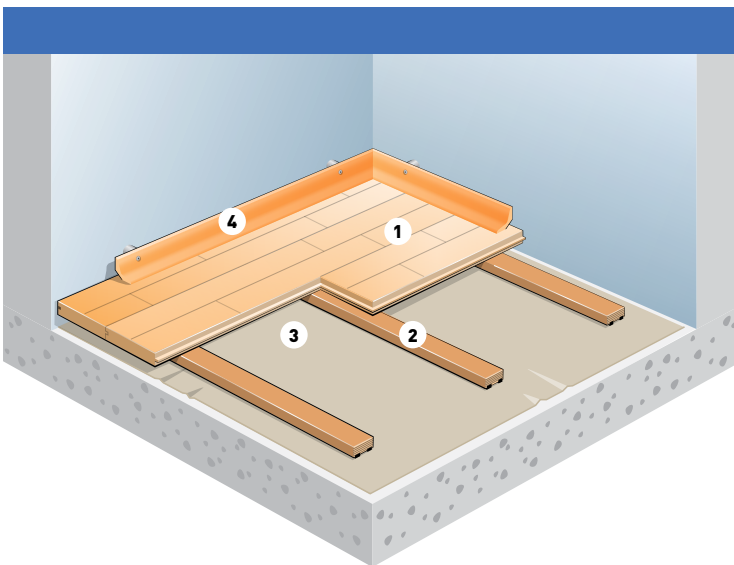
1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).

2) Junckers test with 4" x 4" (100x100 mm) point load.

UNOBAT 50



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



SYSTEM COMPONENTS

1. 7/8" (22 mm) x 5" (129 mm) x 12' (3700 mm) solid hardwood
2. Unobat 50 sleeper: 9/10" (28 mm) x 1,77" (45 mm) x 11' 9" (3600mm), rubber strips included
3. 0.2 mm SylvaThene moisture barrier
4. Beech Sport Wall Base

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

The 7/8" (22mm) Solid Hardwood Planks are blind nailed into a resilient subfloor consisting of a ply-sleeper, with pre-attached shock absorbing foam strips.

The foam strips are inset into a specially designed "U" shaped channel, on the underside of the sleeper. This unique design creates a built in stop block, ensuring the long term performance and resilience of the system.

FACTS

Construction height	2" (50 mm)
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A4
Floorboard type	Prefinished 7/8" (22mm) solid hardwood
Subconstruction	Single layer sleeper
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	$\geq 55 < 75 \%$	64 %
Vertical deformation	$\geq 2.3 < 5.0 \text{ mm}$	2.9 mm
Ball bounce	$\geq 90 \%$	96 %
Friction	$\geq 80 \leq 110$	~ 85
Rolling Load	$\geq 1500 \text{ N}$	3500 N ¹
Point load	None	6000 N ~ 600 kgs ²

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junckers test with 4" x 4" (100x100 mm point load).

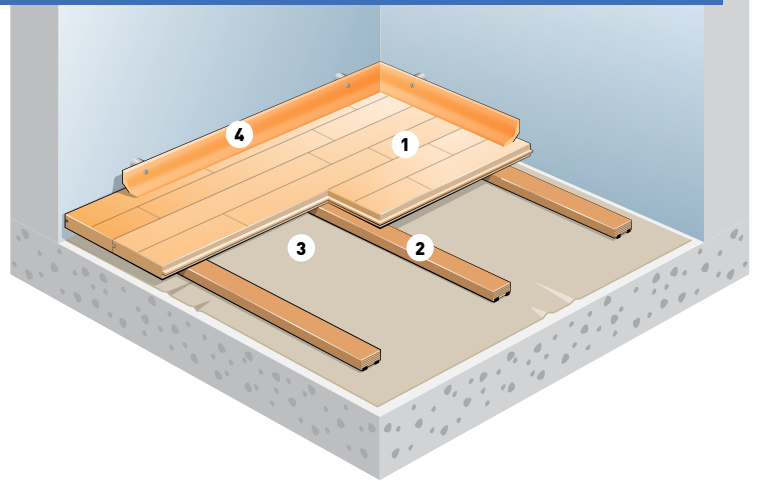
UNOBAT 45



Junkers Unobat 45 batten with two pre-attached neoprene shock absorbing strips.

SYSTEM COMPONENTS

1. 7/8" (22 mm) x 5" (129 mm) x 12'/6" (3700) solid hardwood
2. Unobat 45 sleeper: 7/8" (23 mm) x 1 3/4" (45 mm) x 11' 9" (3600mm), rubber strips included
3. Polythene moisture barrier
4. Beech Sport Wall Base



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

The top solid hardwood is fastened to a resilient subfloor system consisting of 12' long, ply-construction sleepers with pre-attached neoprene shock absorbing strips.

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

FACTS

Total floor system tickness	1 3/4" (45 mm)
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A4
Hardwood type	Prefinished 7/8" (22mm) solid hardwood
System construction	Single layer sleeper
Batten centre, c/c	Either 13 1/4" (336 mm) or 16 3/16" (411 mm)
Junkers 25 years fatigue test	✓
Sanding and re-sealing	Yes to bare wood 8-10 times
Compatible with radiant heating	Yes

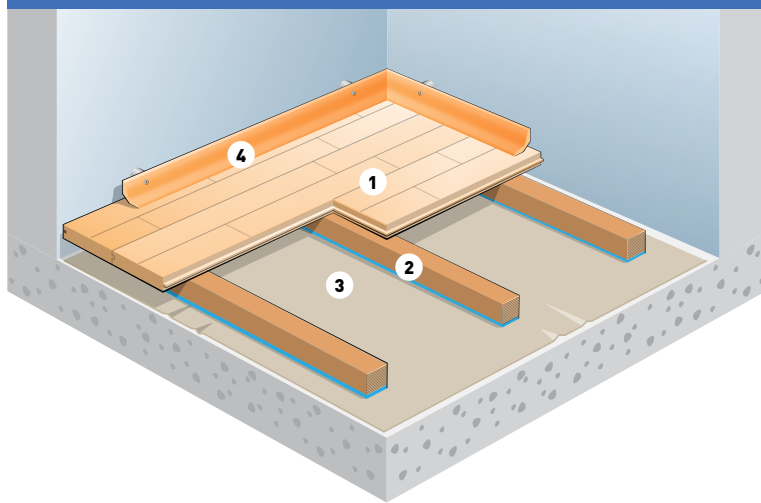
	Requirements EN 14904:A4	Batten distance c/c 411 mm	Batten distance c/c 336 mm
Shock absorption	≥ 55 < 75 %	60 %	60 %
Vertical deformation	≥ 2.3 < 5.0 mm	3.0 mm	2.5 mm
Ball bounce	≥ 90 %	95 %	95 %
Friction	≥ 80 ≤ 110	~ 85	~ 85
Rolling Load	≥ 1500 N	3000 N ¹	3500 N ¹
Point load	None	5500 N ~ 550 kgs ²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

1) Junkers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).

2) Junkers test with 4" x 4" (100x100 mm point load).

BLUBAT 52-67-79

SYSTEM COMPONENTS



1. 7/8" (22 mm) x 5" (129 mm) x 12' (3700 mm) solid hardwood
2. BluBAT sleeper system including sports foam
3. Polythene moisture barrier
4. Beech Sport Wall Base

The BluBat family of systems are floating, sleeper based systems that offer system thickness flexibility when matching existing slab recesses. BluBat Systems offer a good value price point and are designed for use over flat subfloors.

The top solid hardwood is fastened to a resilient subfloor system consisting of 8' long, ply-construction sleepers with a continuous layer of blue foam shock absorbing padding.

The available sleeper thickness are 1 1/8" (30mm), 1 3/4" (45mm) and 2 1/4" (57mm).

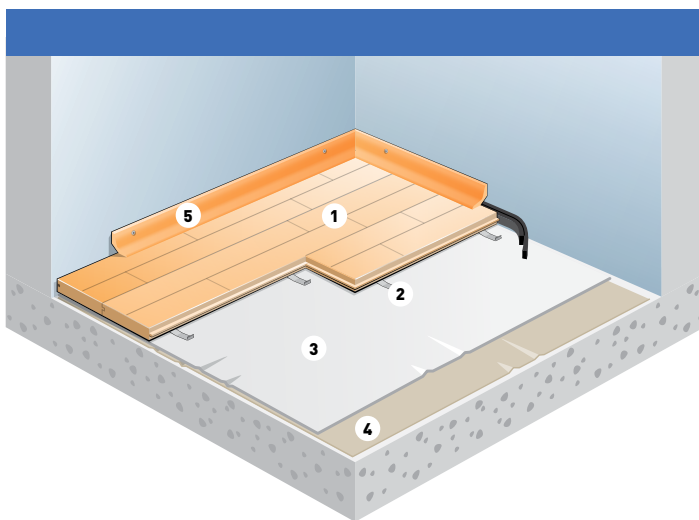
FACTS

Construction height	Choice between 2 1/8" (52 mm), 2 5/8" (67 mm), 3 1/8" (79 mm)
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A3
Hardwood type	Prefinished 7/8" (22mm) solid hardwood
System construction	Single layer sleeper system
Sleeper spacing	13 1/4" (336 mm) or 16 3/16" (411 mm)
Junckers 25 years fatigue test	✓
Sanding and re-sealing	Yes to bare wood 8-10 times
Compatible with radiant 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 ¹	3500 N ¹
Point load	None	5000 N ~ 500 kgs ²	5500 N ~ 550 kgs ²

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junckers test with 4" x 4" (100x100 mm point load).

CLIP FLOORS



SYSTEM COMPONENTS

1. 7/8" (22 mm) x 5" (129 mm) x 6' (1830 mm) or 12' (3700 mm) solid hardwood
2. Steel Clips
3. Junckers Performance Sports Foam
4. Polythene moisture barrier
5. Beech Sports Wall Base

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

The 7/8" (22mm) solid hardwood floor boards are joined together with Junckers Steel Clips, which allow for unique independent floor board flexing. The floor floats over a 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

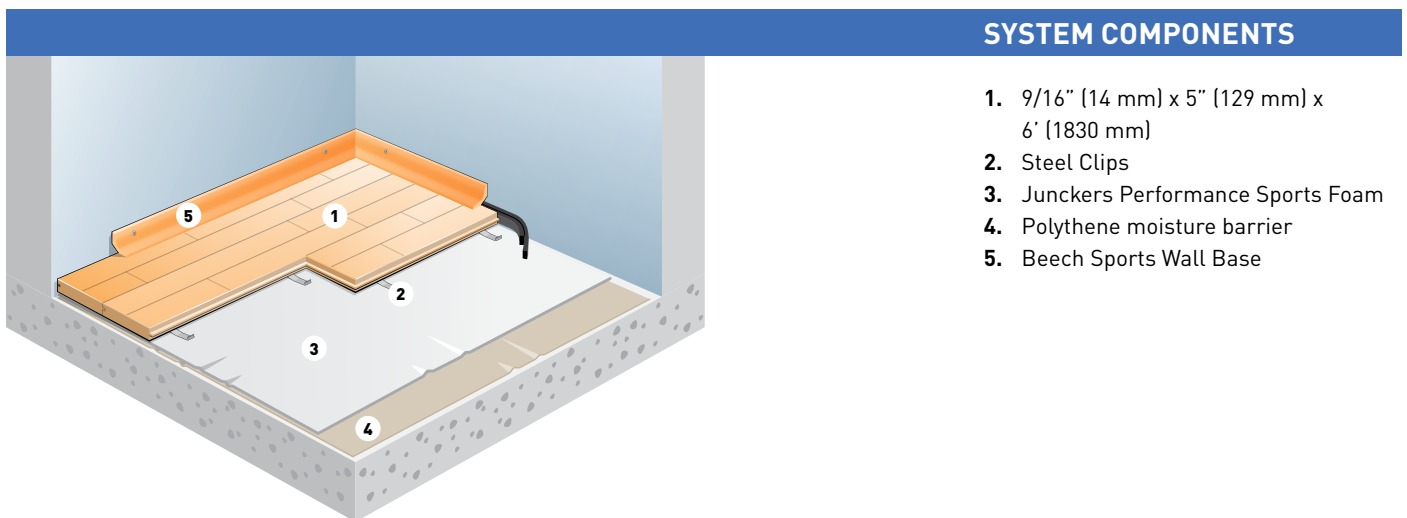
Total floor system thickness	1 1/4" (32 mm) / 1 1/2" (37 mm)
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A3
Hardwood type	Prefinished 7/8" (22mm) solid hardwood
System construction	Floating floor system
Underlayment	3/8" (10 mm) / 19/32" (15 mm) SportsFoam
Junckers 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Compatible with radiant heating	Yes

	Requirements EN 14904:A3	Test results*
Shock absorption	$\geq 40 < 55 \%$	46 %
Vertical deformation	$\geq 1.8 < 3.5 \text{ mm}$	2.4 mm
Ball bounce	$\geq 90 \%$	98 %
Friction	$\geq 80 \leq 110$	~ 85
Rolling Load	$\geq 1500 \text{ N}$	2500 N ¹
Point load	None	4000 N ~ 400 kgs ²

*10 mm foam

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junckers test with 4" x 4" (100x100 mm point load.

STUDIO FLOORS



SYSTEM COMPONENTS

1. 9/16" (14 mm) x 5" (129 mm) x 6' (1830 mm)
2. Steel Clips
3. Junckers Performance Sports Foam
4. Polythene moisture barrier
5. Beech Sports Wall Base

The Studio Floor System is the absolute lowest profile, floating solid hardwood sports flooring system available. It has been specifically developed for non-game lined applications, and provides DIN and EN safety and performance levels.

The top solid hardwood is joined together with Junckers Steel Clips, which allow for unique independent plank flexing, then floats over a 3/16" (5mm) performance foam underlayment for maximum resilience.

This system is ideal for renovation projects, or when the finished floor height must be kept to an absolute minimum. Most Studio Floor projects are completely installed and ready for use in just a day or two, with minimal disruption to ongoing business.

FACTS

Total floor system thickness	3/4"
Required subfloor	5 mm Performance Sports Foam
Performance	DIN and EN tested safety and performance
Hardwood type	Prefinished 9/16" (14mm) solid hardwood
System construction	Performance sport foam / steel clips
Sanding and re-sealing	Yes, to bare wood 4 times
Compatible with radiant heating	Yes

Test results

Shock absorption	40 %
Vertical deformation	1.8 mm
Ball bounce	99 %
Friction	> 0.4
Rolling Load	1500 N ¹

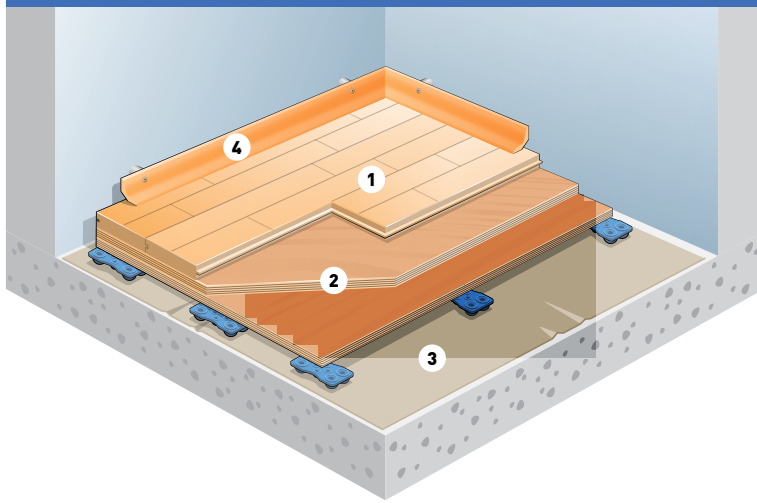
1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junckers test with 4" x 4" (100x100 mm point load).





PROELITE

SYSTEM COMPONENTS



1. 7 7/8" (22 mm) x 5" (129 mm) x 12' (3700 mm) solid hardwood
2. 2-Layers Plywood Decking and Conical Pads
3. Polythene moisture barrier
4. Beech Sport Wall Base

The ProElite System floating floor system is 100%, fully supported by a plywood deck subfloor, with multi-tipped ProElite Pads on the underside. This system is designed for use over flat subfloors.

The top solid hardwood can be either 9/16", 5/8" 3/4" or 7/8"; and is fastened directly to the plywood decking subfloor system. The continuous plywood support accommodates patterns and direction changes within the floor.

The shock absorbing, multi-tipped pads have been specially designed to provide optimum performance and safety.

FACTS

Total floor system thickness	2 5/8", 2 3/8", 2 1/4", 2"
Required subfloor	Flat
Performance	Area-elastic according to EN 14904
Hardwood type	Prefinished 7/8" (22mm) or 9/16" (14mm) solid hardwood
System construction	2-Layers Plywood Decking and Conical Pads
Sanding and re-sealing	Yes to bare wood 8-10 times
Compatible with radiant heating	Yes

Test results

Shock absorption	62 %
Vertical deformation	2.6 mm
Ball bounce	92 %
Friction	> 0.4
Rolling Load	2500 N ¹

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).

ACCESSORIES - PERMANENT 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 2" x 1 12" (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 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 3/8" and 5/8" sports foam depending on system type and/or required performance.



SPACERS

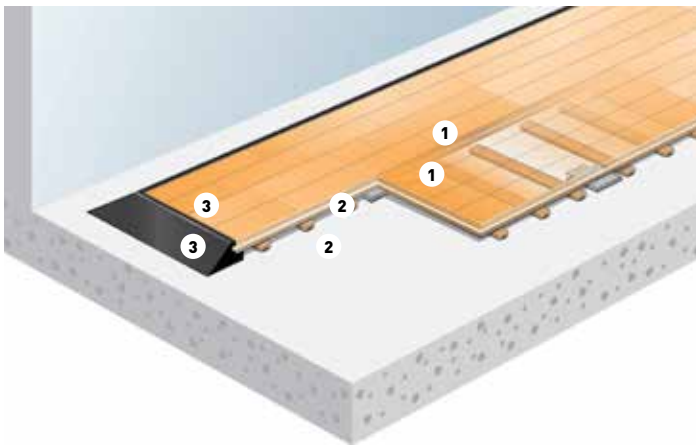
Ensure that the sports floor is installed correctly, with the right 10 board measurement. We have a range of spacers matching any indoor climate.

PRO COMPLETE 44



A transition ramp forms a strong edge to the floor perimeter.

SYSTEM COMPONENTS



1. Floor panels:
 - 1/1 panel: 7/8" x 20" x 6'
 - 1/2 panel: 7/8" x 20" x 3'
2. Pre-attached sleepers:
 - 3/4" x 2 3/4" engineered birch sleepers mounted with polyurethane foam.
3. Black painted transition ramp

The Pro Complete 44 Portable Sports Floor system consists of 7/8" (22 mm) solid hardwood strips. The hardwood strips are preassembled into light weight, hand carried panels.

Pre-attached birch sleepers with polyurethane foam are on the underside of each floor panel. The solid hardwood together with the sleepers have been tested to provide correct shock absorption and resilience.

The floor panels are easily assembled and locked together with pre-mounted metal brackets on each panel.

Lengthwise, all panels have a tongue and groove connection. The ends of the panels are joined using slip tongues.

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

FACTS

Construction height	1 3/4" (44 mm)
Required subfloor	Flat, dry, structurally sound - Self-supporting subfloor of concrete/lightweight concrete Existing hard area elastic floors
Performance	Area-elastic according to EN 14904 class A4
Hardwood type	Prefinished 7/8" (22 mm) solid hardwood
Panel size	Full panel 20" x 6' - Half panel 20" x 3'
Panel weight	Full panel 41 lbs. (18,5 kgs) - Half panel 20 lbs. (9,4 kgs)
Subconstruction	Single layer sleeper system
Junkers 25 years fatigue test	✓
Sanding and re-sealing	Yes, to bare wood 8-10 times
Compatible with radiant heating	Yes

	Requirements EN 14904:A4	Test results
Shock absorption	$\geq 55 < 75 \%$	60 %
Vertical deformation	$\geq 2.3 < 5.0 \text{ mm}$	3.3 mm
Ball bounce	$\geq 90 \%$	95 %
Friction	$\geq 80 \leq 110$	~ 85
Rolling Load	$\geq 1500 \text{ N}$	3000 N ¹
Point load	None	5000 N ~ 500 kgs ²

1) Junkers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junkers test with 4" x 4" (100x100 mm point load).

ARENA MASTER

PERFECT FOR USE ON

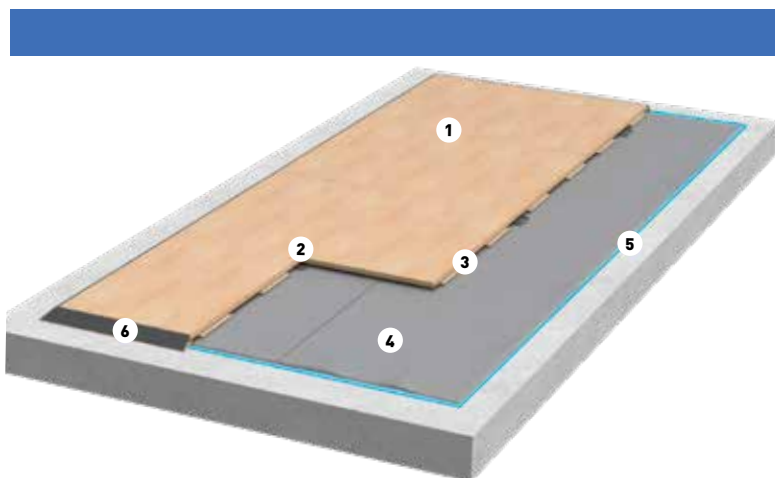
- TURF SURFACES
- ICE RINKS



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. Junckers 7/8" (22 mm) solid hardwood panels.
 - Full size panel: 20" x 6', 10 SF
 - Half size panel: 20" x 3', 5 SF
2. Pre-attached Metal Brackets
3. Pre-attached Plywood / Aluminum
4. Junckers 5/8" Performance Sports Foam
5. Vapor barrier on concrete, 6 mil Poly
6. Transition ramp

The Arena Master Portable Sports Floor features a 7/8" (22 mm) solid hardwood, prefabricated into lightweight panels.

Each portable panel is easily locked in place with pre-attached metal brackets. The panels are joined on all four sides with a tongue and groove connection.

Each panel is constructed with pre-attached strips of 9-ply, 1/2" (12mm) thick birch plywood. The panels are further reinforced at each end with a 1/4" aluminum "L" piece. When assembling the system over a hard subfloor, the panels are installed over a 5/8" (15 mm) Performance Foam, which provides for ideal shock absorption and resilience.

For fast and flexible installation, Junckers Center-Row Panels can be supplied, making a center start / two way installation possible.

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

FACTS

Construction height	1 7/8" (49 mm) / 1 3/8" (34 mm) over turf (without foam)
Required subfloor	Most flat, dry existing hard surfaces, including ice rinks Soft surfaces like rubber, synthetic, turf, and carpet
Performance	Area-elastic according to EN 14904 class A3
Floorboard type	Prefinished 7/8" (22mm) Solid Hardwood
Panel size	Full panel 20" x 6' - Half panel 20" x 3'
Panel weight	Full panel 44 lbs (19.7 kgs) - Half panel 22 lbs (9.9 kgs)
Subconstruction	Pre-attached birch plywood and aluminium angle
Underlay	5/8" (15 mm) Performance 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	$\geq 40 < 55$ %	50 %
Vertical deformation	$\geq 1.8 < 3.5$ mm	2.1 mm
Ball bounce	≥ 90 %	98 %
Friction	$\geq 80 \leq 110$	~ 85
Rolling Load	≥ 1500 N	3000 N ¹
Point load	None	5000 N ~ 500 kgs ²

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).

2) Junckers test with 4" x 4" (100x100 mm point load.

PORTABLE A3

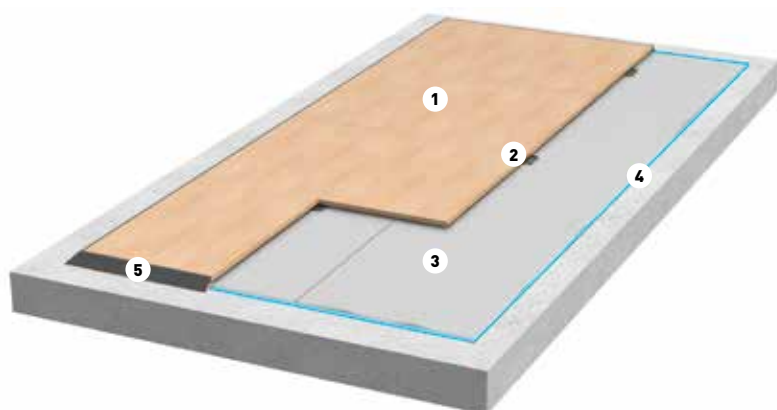


Each panel is easily locked securely into position with factory fitted metal fixing plates.



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

SYSTEM COMPONENTS



1. Junckers 7/8" Solid Hardwood Floor Panels
 - Full size panel: 20" (513mm) x 6' (1800mm)
 - Half size panel: 20" (513mm) x 3' (900mm)
2. Pre-attached Metal Brackets
3. Performance Sports Foam Underlayment
4. Vapor Barrier
5. Black Anodized Aluminum Ramp

Junckers Portable A3 Sports Floor system consists of solid hardwood planks preassembled into light weight, hand carred panels.

The panels are installed "floating" over the 3/8" (10mm) Performance Sport Foam underlayment.

Each panel is easily locked securely into position with a pre-mounted bracket on the underside of each panel.

Lengthwise, the panels are precision milled with a tongue and groove connection. The panel ends are joined using plastic splines.

An aluminium clad edge reducer forms a strong and supported leading edge for the perimeter of the sports floor.

FACTS

Construction height	1 1/4" (32 mm)
Required subfloor	Flat
Performance	Area-elastic according to EN 14904 class A3
Hardwood type	Prefinished 7/8" (22 mm) solid hardwood
Panel size	Full panel 20" wide x 6" long (513 mm x 1800 mm) Half panel 20" wide x 3" long (513 mm x 900 mm)
Panel weight	Full panel 33 lbs (15 kgs) - Half panel 16,5 lbs (7.5 kgs)
Subconstruction	Performance sport foam / metal brackets
Underlay	3/8" (10 mm) Performance Sport Foam
Sanding and re-sealing	Yes, to bare wood 8-10 times
Compatible with radiant heating	Yes

	Requirements EN 14904:A3	Test results
Shock absorption	$\geq 40 < 55 \%$	46 %
Vertical deformation	$\geq 1.8 < 3.5 \text{ mm}$	2.0 mm
Ball bounce	$\geq 90 \%$	99 %
Friction	$\geq 80 \leq 110$	~ 85
Rolling Load	$\geq 1500 \text{ N}$	2500 N ¹
Point load	None	4000 N ~ 400 kgs ²

1) Junckers test with solid rubber wheels, width = 2" (50 mm), diameter=4" (100 mm).
2) Junckers test with 4" x 4" (100x100 mm point load.



RHEINSTAR, GERMANY

ACCESSORIES - PORTABLE FLOORS



PROTECT THE PERIMETER OF THE FLOOR

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



EASY TRANSPORTATION AND STORAGE

Junkers' 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 Junkers 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 floor boards with a precision that only allows machining deviations within very narrow tolerances.

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 urethane. Maintenance of the floor can therefore be kept to a minimum.

DAILY CLEANING IS EASY

Sweeping and wiping with a dampened cloth 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 urethane for re-sealing. The HP Sport Urethane 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





REAL MADRID, SPAIN

LINE MARKING PAINT

ONLY IMAGINATION SETS A LIMIT

A sports floor does not come alive until it has been given the color 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 paint 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 colors can be mixed to create other color shades and for big events such as Euro basket 2017, Junckers has developed several colors to match exactly the color palette for this competition.



GREAT OAK HIGH SCHOOL, USA



THE REGAL, UNITED KINGDOM





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.





SUNBELT CONFERENCE
USA



CHE KUNG TEMPLE SPORTS CENTER
HONG KONG



DISTRICT CA,
USA



JUNCKERS

Performing on Danish design