

## LAYING INSTRUCTIONS - Hexparket

Commercial / Residential

### BEFORE AND DURING LAYING



**JUNCKERS MOISTURE BARRIER**

1-component moisture barrier, which can be used against residual moisture in concrete sub floors. Used where moisture content exceeds the recommended limits.



**JUNCKERS PARQUET GLUE**

For Junckers Glue Down floor system.



**JUNCKERS PREFILL**

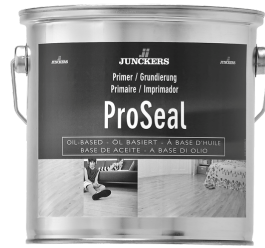
Water-based filler base to be mixed with sanding dust from the sanding process for filling gaps.

## FINISHING TREATMENT



**JUNCKERS PRELAK WATER-BASED**

Fast drying primer to be used if you want a light surface.



**JUNCKERS PROSEAL OIL-BASED**

Slow drying primer to be used if you want to enhance the depth of the colour of the wood.



**JUNCKERS PROFINISH WATER-BASED**

Is used for lacquering of floors in residential and other low-traffic areas.



**JUNCKERS RUSTIC OIL  
CLEAR OR COLOUR**

Is chosen when you want to enhance the depth of the colour of the wood or if you want a coloured finish.



**JUNCKERS PROFESSIONAL HARDWAX  
OIL**

Is chosen when you want a floor with a deep rich colour and a saturated finish.

## GENERAL INFORMATION

Junckers Hexparquet wood tile is a supplement to stave parquet which is a traditional type of wooden flooring which has been used for centuries. Different traditions for laying and treatment of the floors have been established by craftsmen in different countries and Junckers has great respect for these traditions. Therefore, this document is to be seen as Junckers' guidance on laying, finishing treatment and maintenance of our Wood tiles.

Junckers Hexparquet have gone through a quality control process at the factory – it is however, important also to check for errors and defects before and during the installation.

The wood tile are delivered untreated and require sanding and surface treatment after installation (see the section about surface treatment). If the wood tiles are glued down, sanding must be carried out no earlier than 24 hours after gluing.

**Tile dimensions: 20,5 x 370 x 370 x 370 mm**

### Before delivery

Before the materials are delivered, the relative humidity in the building must be within the range expected when in use, eg 35-65%, and the temperature must be approximately 20°C.

If the above temperature and relative humidity levels cannot be met, we ask you to contact Junckers before delivery.

The Wood tile should be delivered 1 or 2 days before installation is due to begin. The Wood tile must not be unwrapped until immediately before laying as it is important that they are as close to the manufacturing condition as possible.

### Environmental conditions

In order to keep moisture related movement of the floor to a minimum, the humidity should be stable for extended periods of time and the humidity range, i.e. the difference between the lowest and the highest relative humidity during the year, should not exceed 25 to 30 percentage points. Examples of humidity ranges are: 25-50%, 35-65% RH. The instructions below are based on the range 35-65% RH.

If site conditions should vary from the above, it is advisable to contact Junckers Technical Service Department.

### Before laying the floor

The building must be weathertight. The heating system must be installed and tested and should be in operation during the heating season. Cast concrete elements, screeding and other wet trades which can contribute moisture to the building, eg tiling, plastering and priming of paintwork, must also be completed.

### Underfloor heating

Junckers Hexparquet wood tile can be used in connection with underfloor heating systems which will provide an even temperature distribution. The temperature on the surface of the wood tile should not exceed 27°C. The underfloor heating must be switched off for 2 days before installation is started; after installation it is raised slowly by maximum 5°C every second day. However, the working temperature for the glue must be minimum 15°C. With underfloor heating the gaps which typically appear in a wooden floor during the heating season will be larger than with heating from radiators.

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## INSTALLATION

The tiles can be screwed, nailed or glued to a subfloor of plywood / existing wooden floor or screwed or glued to a chipboard base. Furthermore, they can be glued down to a concrete or screeded subfloor. The moisture content of a wood based subfloor must not exceed 12% and for concrete/screeded subfloors it must not exceed 75% RH. When screwing a 500 g/m<sup>2</sup> floor cardboard is to be inserted between the wooden subfloor and the wood tiles in order to minimize creaking between the tiles and the subfloor. Each tile is fixed by secret screwing or nailing at a 45° angle with 1 screw/nail on each side.

Fixing: 20,5 mm wood tile: Inserting the 180 mm loose tongue in groove. For screwing use 45 mm. Monta-Flex screws. For nailing use Junckers J-nail or 65 mm T-nail for nail gun. For gluing use Junckers Parquet Glue.

For screw fixing it may be necessary to pre-drill (use a drill with a slightly smaller diameter than the screw).

Solid Hexparquet wood tile from Junckers must NOT be glued in tongue and groove. However, wood tiles which can't be securely fastened may occasionally be glued in the heading joints at walls and in the tongue and groove at the last row of wood tiles at the wall.

### Existing wooden floor

In order to achieve the correct surface tolerance, the subfloor can be levelled by planing, filling or by fixing minimum 15 mm thick plywood to the base. If plywood is used, the original laying direction can be used. It is important that the existing wooden floor has been properly fixed without loose boards or protruding fastenings.

### Plywood floor

Plywood subfloors must be a minimum 18 mm thickness with battens at maximum 520 mm centres. If plywood is being fixed to an existing timber base, 12 mm thickness may be used. Tongue and grooved jointed plywood must be glued together in accordance with the manufacturer's instructions.

### Chipboard floor

Flooring grade chipboard 22 mm can be used and laid on battens with maximum support centres of 600 mm. If the chipboard is laid on an existing floor, it must be approved chipboard of minimum 16 mm. The boards must be fitted according to the manufacturer's directions and must be glued in the tongue and groove joints.

#### Concrete/screed

Before the floor installation is started, you must make sure that the relative humidity in the concrete or screed does not exceed 75% RH. With underfloor heating the relative humidity in the concrete or screed must not exceed 65% RH and, at the same time, the floor heating system must be switched off while the installation is carried out. If the relative humidity in the concrete or screed is higher than stated above, the floor installation must be postponed or a high performance damp proofing material may be used. Junckers liquid surface applied moisture membrane may be used on sub floors with a relative humidity up to 85% RH Contact Junckers Technical Service Department.

#### Glue Down method

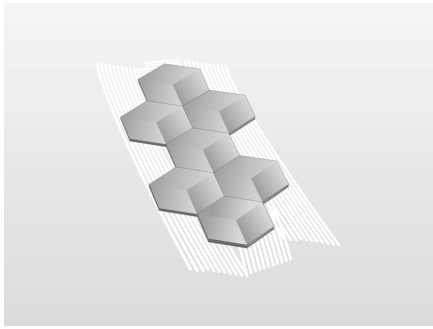
For gluing the floor use Junckers Parquet Glue. The glue is applied using the Junckers notched Glue Spatula leaving a thin glue coat on the floor between the glue tracks. Hold the spatula at an angle of 45° and with the side marked "2" turned downwards. Use approximately 0.5 litre per m<sup>2</sup>, depending on the absorption capacity, structure and flatness of the subfloor. Only apply sufficient glue that the laying of the tiles can be finished within 20 minutes.

There are some important points to consider when fitting block floors.

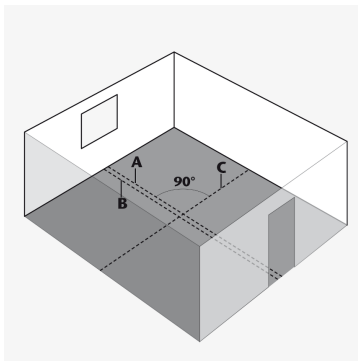
The first row of tiles is used to set out the rest of the floor and can be fitted with our normal adhesive but it must be thoroughly set before the main field of the floor is installed.

Consider the fact that there may be no moisture barrier – so if using our adhesive, the cementitious base must be 75%RH or less and 65%RH when under floor heating is present. Our liquid surface applied moisture membrane can be used up to 95%RH.

## INSTALLATION METHOD 1

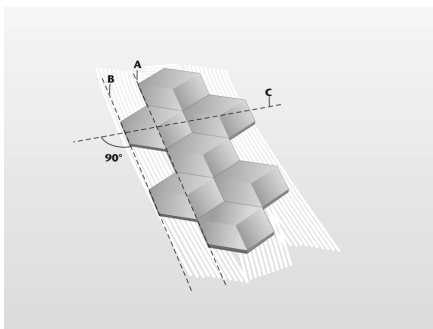


Measure the width and length of the room in order to plan the cut row along all sides of the room. Also consider the laying direction of the tiles, see figure to the left for method 1, and first figure on the next page for method 2.



The two centre lines in the room (lines A and C) are marked by a chalk line or string at an angle of 90° to each other.

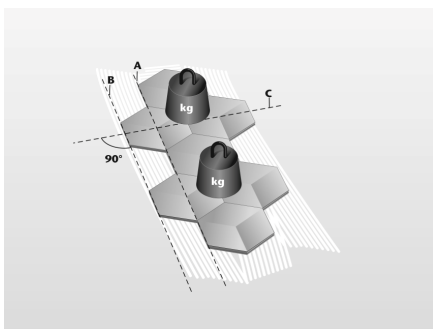
In order to maintain the laying direction of the starting row a working line B is drawn with a string or a chalk line 185 mm from line A.



To be able to regulate the laying direction of the starting rows, the edges of the tiles must be in line with the working line B.

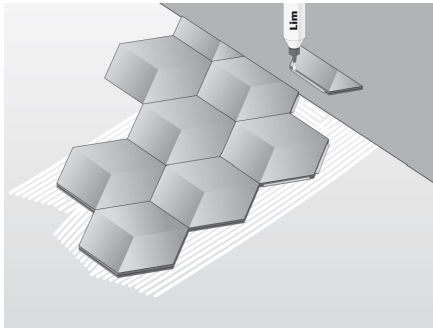
It can be helpful to draw an extra working line 740 mm to the right from working line B.

If tiles are nailed/screwed you can continue laying of the tiles when starting row is completed as shown.



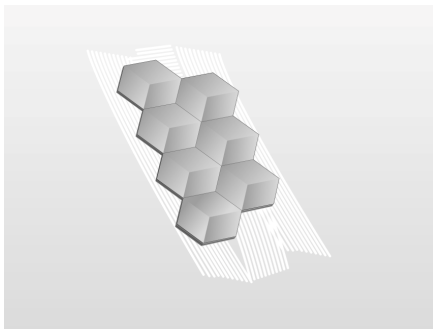
When the starting row has been laid it is recommended to leave the glue to dry overnight, before the floor laying continues. Do not forget to remove excess glue from the floor. It is advisable to load the floor continuously during laying to ensure a good bond between staves and sub floor packs of flooring or adhesive containers, can be used for this purpose.

When the starting row is dry, you can continue laying the tiles. Only apply sufficient glue that the laying of the tiles can be finished within 20 minutes.

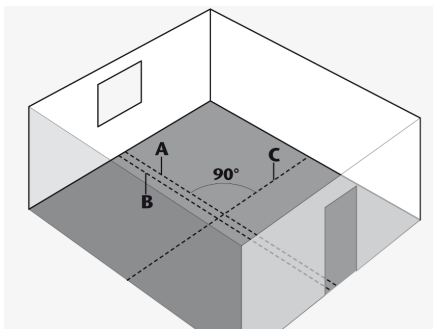


If the tiles are cut at the border or wall so that they are smaller than the size of a ½ tile the tongue and groove joints of the tiles must be exceptionally well glued.

## INSTALLATION - METHOD 2

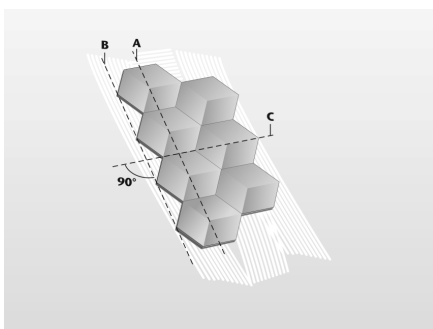


Measure the width and length of the room in order to plan the cut row along all sides of the room. Also consider the laying direction of the tiles, see figure to the left for method 2 and first figure on previous page for method 1.



The two centre lines in the room (lines A and C) are marked by a chalk line or string at an angle of 90° to each other.

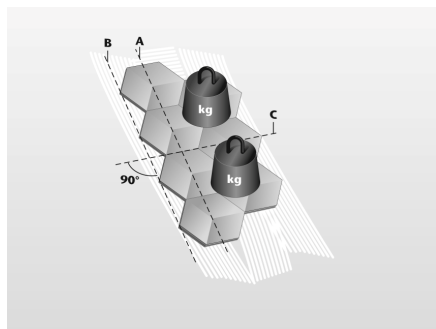
In order to regulate the laying direction of the starting row a working line B is drawn with a string or a chalk line 214 mm from line A.



To be able to regulate the laying direction of the starting rows, the edges of the tiles must be in line with the working line B.

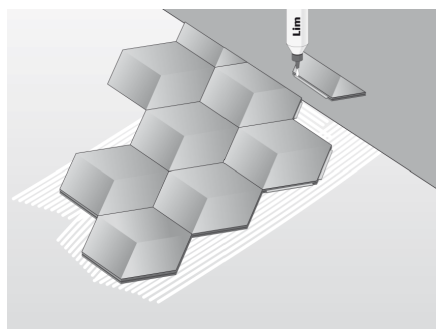
It can be helpful to draw an extra working line 748 mm to the right from working line B.

If tiles are nailed/screwed you can continue laying of the tiles when starting row is completed as shown.



When the starting row has been laid it is recommended to leave the glue to dry overnight, before the floor laying continues. Do not forget to remove excess glue from the floor. It is advisable to load the floor continuously during laying to ensure a good bond between staves and sub floor packs of flooring or adhesive containers, can be used for this purpose.

When the starting row is dry, you can continue laying the tiles. Only apply sufficient glue that the laying of the tiles can be finished within 20 minutes.



If the tiles are cut at the border or wall so that they are smaller than the size of a ½ tile the tongue and groove joints of the tiles must be exceptionally well glued.

Before laying the tiles, any subfloors must be levelled to a tolerance of no more than 3 mm gap showing under a 2 m straight edge. The surface must be smooth with no roughness. Local irregularities must be levelled.

All subfloors must be completely cleaned from grease and dirt before laying the tiles

#### Distance to walls and expansion gaps:

Depending on the size of the room, an expansion gap of 12-15 mm at walls and fixed installations should be left in order to allow the natural movement of the floor to take place. Junckers can supply matching skirting, quadrant or scotia mouldings to cover this gap. Alternatively the gap can be filled with Junckers cork or rubber strip.

We recommend that expansion gaps are established in the following cases: Where there are large variations in temperature and humidity, with particularly large floor areas, or where the floor is naturally divided by doors etc. Furthermore, any structural movement joints in the sub floor of the building must be taken up through the wooden floor if this is glued down to the subfloor.

## SURFACE TREATMENT OF SOLID WOOD TILE FLOORS

Beautiful floor requires a strong and durable surface treatment. There are four alternative methods of surface treatment for a floor laid as Wood tile.

1. Lacquering
2. Oiling
3. Oiling + subsequent lacquering
4. Junckers Professional Hardwax oil

The choice of surface treatment depends on the desired properties and appearance of the finished floor. See directions for and properties of the various options below.

#### Sanding

Before the surface treatment is started, the floor is sanded and Junckers Prefiler can be used to achieve an even and smooth surface. Finishing sanding must be done with 120 – 150 grit paper or a rotary finishing sander with 120 grit sandpaper. Floors laid in a pattern are first sanded diagonally and then longitudinally in relation to the grain. The entire surface is sanded in the direction from which the light comes. After sanding, the floor is vacuumed thoroughly to remove dirt and dust, etc.

## SURFACE TREATMENT

### 1. LACQUER FINISH

A lacquer finish is chosen when a hardwearing surface requiring only a minimum of maintenance is required. Depending on the required properties for the appearance of the floor, there are two alternative types of primer. Both types of primer are to be applied in an even coat using a short haired mohair roller. One coat of primer will be needed.

#### A) Junckers PreLak water-based

Fast drying primer to be used if you want a light surface. Apply 1 coat of lacquer and sand at least 2 hours later with grit 120-150 mounted on a polishing machine.

#### B) Junckers ProSeal oil-based

Primer to be used if you want to enhance the depth of the colour of the wood. Apply 1 coat of lacquer and sand the next day with 120-150 grit paper mounted on a polishing machine.

#### Finishing treatment of a lacquered floor

Depending on the anticipated use of the floor, there are 2 alternative types of lacquer for finishing the floor. Both types of lacquer must be applied in an even coat using either a brush, a short haired mohair roller, or a lacquer applicator.



#### A) Residential and other low-traffic areas

After priming, the floor is lacquered with 2 coats of Junckers ProFinish, Coverage rate approx. 10 m<sup>2</sup>/l. Lacquering must take place with an interval of at least 4 hours between coats. Junckers ProFinish is available in 4 different gloss levels: Ultramatt, matt, silk matt or gloss.



#### B) High-traffic areas

After priming, the floor is lacquered with 2 coats of Junckers HP COMMERCIAL, coverage rate approx. 10-12 m<sup>2</sup>/l. Lacquering must take place with an interval of at least 4 hours between coats. Junckers HP COMMERCIAL is available in 3 different gloss levels: Ultramatt, matt and silk matt.

After the finishing treatment, the lacquer will have hardened after 72 hours. You can start using the floor carefully after 24 hours.



## 2. OILING

The oil finish is chosen when you want to enhance the depth of the colour of the wood. An oiled floor must be retreated more frequently than a lacquered floor but, in return, it is possible to carry out partial repairs on the high-wear areas of the floor. This is difficult with lacquer where repairs are typically carried out by lacquering the entire floor.

When using oil, you can choose between clear and coloured oils.

In small areas the oil is applied with a cloth, brush or roller. In larger areas the oil is applied by a roller, mop, or nylon pad mounted on a polishing machine.

### Priming of an oiled floor

Priming is carried out with 2 coats of Junckers Rustic Oil clear or coloured. Apply the first coat of oil and allow it to soak in for 30 minutes before the second coat is applied. If areas dry out faster, then apply more. Do not allow the surface to dry. After maximum of 30 minutes wipe off the excess oil. Dried and unabsorbed oil leaves glossy areas on the surface. The surface should appear matt and even. Large areas should be divided into smaller areas corresponding to an area which can be oiled within 30 minutes. Leave the oil to dry 12- 16 hours before the finishing treatment.

**When using coloured oils, the floor is wiped with a damp cloth before oiling in order to achieve a uniform colour.**

### Finishing treatment of an oiled floor

Prior to the finishing coats of oil being applied, the primer is screened with a polishing machine mounted with a black nylon pad. Sanding dust is removed by vacuum cleaner. Coloured oil surfaces should be sanded carefully.

Apply a thin coat of Junckers Rustic Oil clear or coloured on the surface according to the absorbency of the wood. Excess oil must be wiped off a maximum of 30 minutes after application. Polish with a clean cloth until the floor feels dry. Repeat the treatment after 6-8 hours. The floor is ready for use approximately 24 hours after the application of the last coat.

## 3. OILING + SUBSEQUENT LACQUERING

This solution enhances the depth of the colour of the wood but with the durability and ease of care of lacquer. It is possible to use both clear and coloured oils.

In small areas the oil is applied with a cloth, brush or roller. In larger areas, the oil is applied by a roller, mop or nylon pad mounted on a polishing machine.

### Priming of oiled and lacquered floor

Priming is carried out with 2 coats of Junckers Rustic Oil clear or coloured. Apply the first coat of oil and allow it to soak in for 30 minutes before the second coat is applied. If areas dry out faster, then apply more. Do not allow the surface to dry. After a maximum of 30 minutes wipe off the excess oil. Dried and unabsorbed oil leaves glossy spots on the surface. The surface should appear matt and even. Large areas should be divided into smaller areas corresponding to an area which can be oiled within 30 minutes. Leave the oil to dry for 12- 16 hours before the finishing treatment.

**When using coloured oils, the floor is wiped with a damp cloth before oiling in order to achieve a uniform colour. It is important that the entire floor surface is saturated with oil and allowed to dry, before the finishing treatment with lacquer.**

After approximately 16 hours the floor must be screened with a green nylon pad (do not screen too heavily). Sanding dust is removed by vacuum cleaning and the floor is wiped with a well wrung out cloth.

### About oiling oak in particular:

In order to avoid discoloration the wood must be completely saturated with oil before the application of lacquer. You will find further information in the section, "Finishing treatment of an oiled floor".

### Finishing treatment of an oiled and lacquered floor

Depending on the anticipated traffic levels on the floor, there are 2 alternative types of lacquer available for finishing the floor. Both types of lacquer are applied in an even coat either by brush, clean short haired mohair roller or lacquer applicator.

**A) Residential and other low-traffic areas**

After priming, the floor is lacquered with 2 coats of Junckers Pro finish coverage rate approx. 10 m<sup>2</sup>/l.

Lacquering must take place with an interval of at least 4 hours between coats. Junckers ProFinish is available in 4 different gloss levels: ultramatt, matt, silk matt or gloss.

**B) High-traffic areas**

After priming, the floor is lacquered with 2 coats of Junckers HP COMMERCIAL, coverage rate approx. 10-12 m<sup>2</sup>/l. Lacquering must take place with an interval of at least 4 hours between coats. Junckers HP COMMERCIAL is available in 3 different gloss levels: Ultramatt, matt and silk matt After the finishing treatment, the lacquer has hardened after 72 hours. You can start using the floor carefully after 24 hours.

**4. OILING WITH JUNCKERS PROFESSIONAL HARDWAX OIL**

Junckers Professional Hardwax Oil gives a floor solution with a more rich and saturated surface finish. Maintenance is not required as frequently as for traditional oiling but more frequently than for lacquered surfaces.

Apply Junckers Professional Hardwax Oil in an even coat with a roller or brush. Immediately after, buff the floor with a polishing machine mounted with a cloth to remove excess oil. After minimum 6 hours another coat of oil is applied and the buffing is repeated. If the floor is not saturated after this treatment, it is repeated. Lacquer cannot be applied on top of Junckers Professional Hardwax Oil.

We refer to [www.junckers.co.uk/professional/floors/installation](http://www.junckers.co.uk/professional/floors/installation) for further technical information.