

SolidfloorTM

- Installation instructions
- Maintenance instructions
- Under floor heating and cooling
- Guarantee provisions

25 years
SolidfloorTM
guarantee

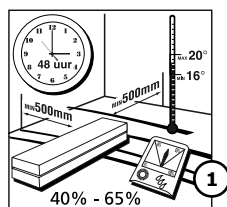
SolidfloorTM ...forever yours

INSTALLATION INSTRUCTIONS



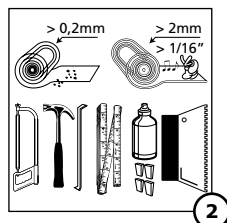
Carefully read these instructions before you start work. Check whether the floor panels are undamaged and fault-free, since the guarantee only applies to hidden defects

Important note: Place the material in the room in which the installation is to be done, without opening the packing, and allow it to acclimatise for at least 48 hours. The material should be placed flat on the floor in the horizontal position, at a distance of at least 50 cm from the wall. (see 1).



WHAT YOU WILL NEED

The only tools you need is a hammer, a fine-toothed (hand or jig)saw, a folding ruler, a pencil, a tensioning wire (cord) along the length of the room, and an installation set that consists of a stop block, a stop iron and spacer blocks. Wood glue for a floating floor. Glue and a glue comb to glue the floor (consult your supplier) (see 2).



STORAGE

The room in which you will be installing the floor panels should be dry. The floor panels should be installed at a room temperature of at least 16 °C. The relative air humidity in the room, to be measured using a hygrometer, should not be less than 40 % and not exceed 65 %. The humidity should also remain within these limits during and after the installation. When the level of air humidity is too high you should ensure that there is sufficient air circulation and add humidity to the air with the help of a humidifier during long dry periods, i.e. the heating season. If the floor panels are going to be stored (in the packing) for long periods of time, such storage should always be at room temperature. The storage space should have an average relative humidity not exceeding 65 %. The floor panels should not be stored in a room with a high level of humidity.

BEFORE STARTING INSTALLATION

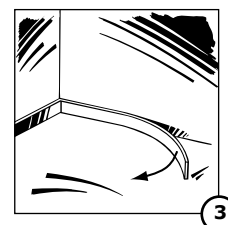
Your Solidfloor has been manufactured with the best possible care. However, we would still advise you to check the floor panels for visible deviations such as damage, extreme colour differences and shape or dimensional deviations, if these are not in accordance with the specification. Contact your dealer for the correct specifications of your floor.

Complaints concerning visible deviations will not be entertained after floor panels have been installed. Ensure good lighting when installing the floor.

SKIRTING BOARDS

You may remove the existing skirting boards and reinstall them after installation (see 3).

To enable the floor to shrink and expand freely under the skirting boards, end-piece and transition skirting boards should be fixed on the walls. Flat skirting boards can be glued to the floor panels. Because wood naturally expands when it gets wet and shrinks when it is dry, you should always leave a (an expansion) gap between the wall and your Solidfloor, which gap is equal to the thickness of your floor panel. For that reason, floors with a thickness of 15 mm require an expansion gap of 15 mm. These expansion gaps can be created by using special spacer blocks, which should be placed every 40 cm. This expansion gap is also needed for possible columns, heating pipes and other fixed objects in the room in which the installation will be done. Remove the spacers after 24 hours and replace them by resilient cork or rubber blocks/strips.



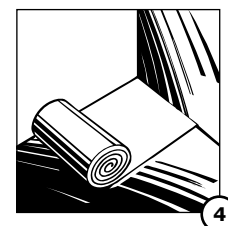
SUBFLOORS

Solidfloor panels can be installed on practically any subfloor. This subfloor should, however, be permanently dry, hard, flat, clean, and have adequate load-bearing capacity. A floor is flat if there is less than 2 mm height difference over a distance of one continuous meter. Unevenness exceeding 2 mm/meter should be levelled out.

CONCRETE SUBFLOORS

A concrete floor should not contain more than 2 % moisture (your supplier can measure this for you with a moisture meter). You should install an underlayment on top of this. A 3 mm underlayment will be adequate from the technical point of view (see 4).

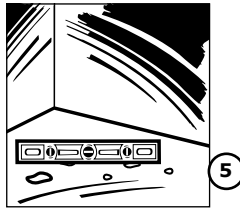
You should also always install a moisture insulation foil (for example building foil) underneath the subfloor. Joints should be thoroughly sealed. The foil should extend behind and up the full height of the skirting board.



INSTALLATION INSTRUCTIONS

WOODEN SUBFLOORS

The wood moisture content of a wooden subfloor should not exceed 14 %. Your supplier can carry out the required measurements using a wood humidity meter. You must first check the floor for loose parts and tighten the same in place **(see 5)**. You may level the floor by sanding it down or installing a chipboard sheet. The wooden subfloor should have an underlayment. A 3 mm underlayment will be adequate from the technical point of view but a 7 mm natural board fibre plate has a better levelling effect and is recommended for floors with slight differences in height. Do not lay the panels if the crawl space is wet. Always make sure there is sufficient ventilation to allow the subfloor to 'breathe'.



UNDER FLOOR HEATING AND COOLING

If you want to install a wooden floor on top of the under floor heating and cooling, there are certain guidelines you must follow. It is important to know what type of system is being used, but also the type of subfloor and the type of parquet. Beech, Ash, Maple and Jatoba are wood types that easily warp and, therefore, are not recommended for use in combination with under floor heating or cooling. The guarantee will not apply when these wood types are installed in combination with under floor heating or cooling. For more information about the guidelines: www.solidfloor.com

REQUIREMENTS WITH REGARD TO NOISE REDUCTION

There are situations where a sound-damping subfloor is required. Your supplier has various kinds of underlayment in its range that meet these requirements. Ask for the test report.

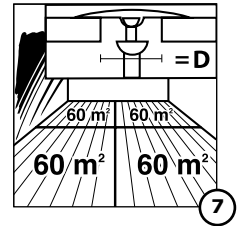
MODIFICATION OF DOORS

Check whether your doors can open and close with the combined height of the flooring and your subfloor if any. If not, you may modify (shorten) your doors according to the changed situation **(see 6)**.



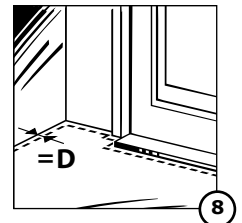
DILATATION

Movement joints should be installed if floors are more than 10 m long or more than 6 m wide, as well as near door openings, between rooms, at turns in passages, etc. **(see 7)**. These movement joints may be finished using specially developed dilatation joint profiles. There should be an offset of at least 40 cm between the cross-cut ends of the floor panels in consecutive rows.



EXPANSION GAP

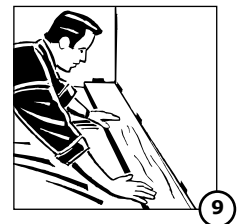
If the humidity level and temperature change, the floor may shrink or expand to some extent. For this reason, an expansion gap should be maintained with respect to all fixed boundaries such as: walls, thresholds, columns and central heating pipes, which is as thick as the floor itself (D) **(see 8)**.



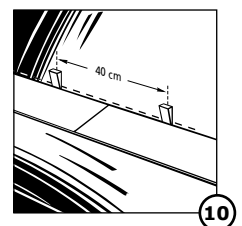
FLOATING INSTALLATION OF ENGINEERED PLANK FLOORING

The panels are laid 'floating' by gluing the panels together using water-proof PVAC wood glue (D3 wood glue).

1. After the underlayment has been installed, the next step is to start installing the panels in a corner of the room which is immediately visible when entering the room **(see 9)**. First calculate the number of tracks that you will be laying. You will obtain best results if the first and the last track are of approximately the same width. Now, lay the first panel with the groove of the length facing the wall. Usually, the panels are laid lengthways in the house (in the direction of the light).

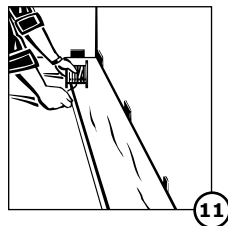


2. An expansion joint of around the thickness of the floor should be installed all around the floor. Place a spacer block at every 40 cm **(see 10)**. Remove them 24 hours after the floor has been laid.

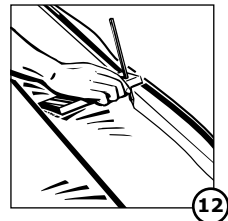


INSTALLATION INSTRUCTIONS

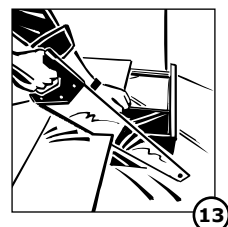
Now place the second floor panel, and so on, until the installation of the first row of floor panels is completed. Now check whether the first row is fully straight by tensioning a rope along the length (**see 11**). After the third row has been laid, check again if the floor is level.



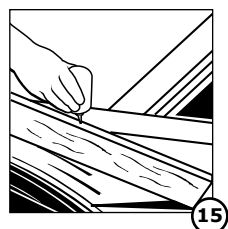
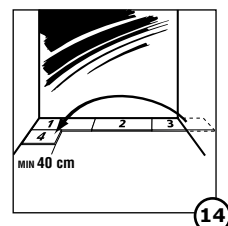
3. If the wall is not fully straight, you should transfer the unevenness to the floor panels. This may be done using a spacer with a lead pencil (**see 12**).



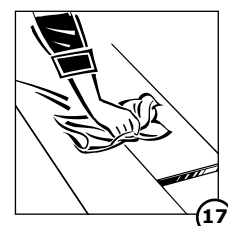
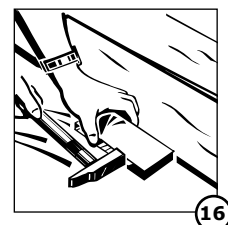
After the floor panels have been marked out, saw the same as required so that the recesses, etc., fit together. Keep in mind the expansion joint. Use a fine-toothed saw for this purpose. If a hand saw is used, make sure the décor side is facing upwards; if a jigsaw is used, keep the décor side facing downwards (**see 13**).



4. Lay the first row of panels by gluing each subsequent panel on the short side. In the second row, start with the remaining part of the first row (**see 14**). This part, however, must be at least 40 cm in length, so as to ensure that the floor has optimum stability and also to ensure minimum loss of material. The panels should be glued along the entire length and width. Do not use too much glue! (**see 15**).



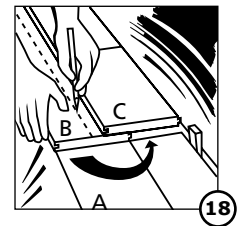
5. Use a stop block when tightening the panels to avoid damage. Always place the stop block against the tongue to avoid damaging the surface layer (**see 16**). After the panels have been tightened, remove any residual glue immediately with a slightly moist cloth (**see 17**). After the glue has dried, it will be almost impossible to remove any residue.



6. While fitting the last row of floor panels, lay the floor panels with the décor side down with the groove against the wall.

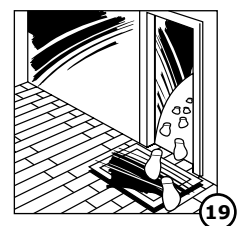
Now make the required markings and cut with the saw.

Also keep in mind the prescribed expansion joint (**see 18**). If it is difficult to reach the last row, lay the panels one by one as close as possible against the panels of the last row but one. Then push them together lengthwise using a pull iron and a hammer. The cross-cut ends are tightened using a stop block or a pull iron and hammer.



AFTER INSTALLATION

You can start using the floor immediately after installation (**see 19**). You can now start finishing operations on the floor. You may also start installing the skirting boards. If you have installed oxidative oiled floors, it is recommendable to apply Solidfloor™ Ultimate Hardwax oil to the floor after installation. Consult the maintenance instructions for this.



GLUED INSTALLATION OF ENGINEERED PLANK FLOORING

Apart from installing floating floors it is also possible to glue the floors. It is actually highly recommended to glue the floor to achieve the highest yield possible in respect of under floor heating and cooling.

GLUING ON CONCRETE, SAND CEMENT FLOORS OR TILED FLOORS

If the floor is above a basement, a crawl space or any other room where rising damp can be expected, a moisture barrier should be placed on top of the floor (a special damp-resistant epoxy resin). In this case the glue should also be adjusted to the epoxy moisture barrier. A primer may have to be applied to the floor (apply primer). Follow the instructions of the glue supplier.

GLUING ON AN ADHESIVE SUBFLOOR (WOODEN FLOOR PANELS OR UNDERLAYMENT)

If the floor is above a basement, a crawl space or any other room where rising damp can be expected, a moisture barrier should be placed on top of the floor. It is also an option to place damp-resistant polyethylene foil (construction foil) with a thickness of at least 0.2 mm between the wooden underlayment and chipboard, the tracks must be installed with an overlap of at least 200 mm and after that the joints must be made damp-proof with tape. (or a special damp-resistant epoxy resin can be applied to the chipboard; in this case the glue should also be adjusted to the epoxy)

INSTALLATION INSTRUCTIONS



After the epoxy resin and/or the primer has dried up, the floors can be glued. The glue must be used in accordance with the instructions of the glue supplier. The glue must be applied with the right glue comb. Do not apply glue to too big of a floor surface but apply plank by plank or, if necessary, row by row to prevent the glue from hardening. Follow the same instructions as for installing a floating floor but make sure that the parquet planks are pressed into the glue with force.

The next floor panels must be positioned in such a way that they are connected to the panel already installed while being slid towards that panel. Be careful not to spill glue on the parquet.

It is recommendable to put a heavy weight on the glued floor for at least 12 hours to press it into the glue bed well. The freshly glued floor may not be used for 24 hours or otherwise if the glue instructions say differently.

Other requirements for gluing:

- The glue must touch at least 80% of the parquet floor panel.
- The underlayment must at least meet the following requirements:
- Flaking strength min. 1Mpa
- Pressure strength min. 25 Mpa

Only polyurethane glue and synthetic glue should be used, especially intended for the installation of ready-made parquet floor panels according to the supplier and that can be used on top of floor heating. Dispersion glue should not be used.

NOTE: The gluing does not reduce natural shrinkage or expansion (warping of wood) so make sure that there are sufficiently big expansion gaps. It is important to use glues, epoxy resins and primers of the same manufacturer and to use the same system to ensure compatibility.

AFTER INSTALLATION

It is recommendable to put a heavy weight on the glued floor for at least 12 hours so that it is pressed into the glue bed well.

The freshly glued floor may not be used for 24 hours or otherwise if the glue instructions say differently.

You cannot finish the floor with skirtings, or clean it or apply oil on it afterwards until after the floor has dried for 24 hours.

Use oxidative oiled floor Solidfloor™ Hardwax oil if you want to apply oil after installation.

Any guarantee on the floor will expire if the above instructions are not followed or if the wrong glue is used, and the floor may damage as a result.

INSTALLATION OF ENGINEERED PLANK FLOORING WITH CLICK CONNECTIONS

For floors with a click connection you should use an underlayment that is not thicker than 3 mm and is not resilient. Install the first row of floor panels, starting with the tongue toward the wall. Always work from left to right. Saw off the tongue on the left cross-cut end (only the first part) and long end on the side of the wall of the parquet. Make sure that all the cross-cut ends of the first row are accurately connected to prevent that gaps will be created in the next rows. Then slowly push down the floor panel until the pieces are flat and firmly fixed in place. Tighten it by hand or use a hammer and stop block.

In the second row, start with the remaining part of the first row. This part must however be at least 40 cm in length, so as to ensure that the floor has optimum stability and also causes minimum loss of material. Make sure to keep the same distance to the wall when installing the first panel of each new row. Always saw off the tongue on the left side of the panel.

The floor panels will be fixed to each other at the top by turning the tongue of the floor panel into the groove of the installed floor panel at an angle of 20-30 °C. Then slide the panel below this corner accurately against the cross-cut end of the already installed panel on the left. Slowly push down the floor panel until the pieces are flat and firmly fixed in place. Tighten it by hand or use a hammer and stop block. Finish the row in the same way and repeat this procedure for each following row.

While fitting the last row of floor panels, lay the floor panels with the décor side down with the groove against the wall. Now make the required markings and cut with the saw. Also keep in mind the prescribed expansion joint of 15 mm. If it is impossible to lay the last row, lay the panels one by one as close as possible against the panels of the last row but one. Then push them together lengthwise using a pull iron and a hammer. The cross-cut ends are tightened using a stop block or a pull iron and hammer.

INSTALLATION INSTRUCTIONS

INSTALLATION OF ENGINEERED PLANK FLOORING IN HERRINGBONE OR IN HUNGARIAN POINT

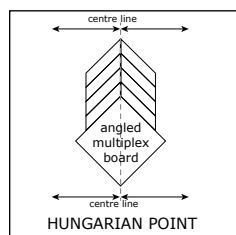
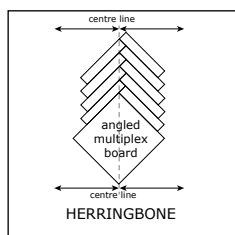
Engineered plank flooring in herringbone or Hungarian point always has to be installed with glue. The choice for any primer and glue to be used depends on the type of subfloor and whether there is an under floor heating or cooling. Consult a specialist to make the best choice.

Step 1 – Preparation

Read the following section for general instructions: "INSTALLATION OF ENGINEERED PLANK FLOORING".

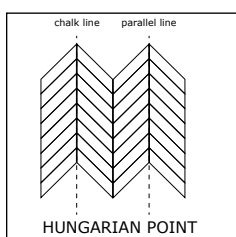
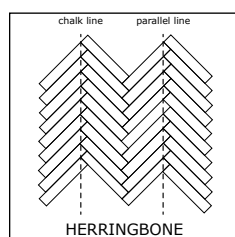
Step 2 – Starting

- Decide on the pattern you want to install.
Normally, the pattern is laid along the length of the room. For example, you should decide whether you want a single or double herringbone pattern.
- Start laying the floor from the middle of the room. Draw a chalk line in the middle of the length of the room, square with the short wall.
- Start installing the floor panels from this line.
- Start with an angled multiplex board, which is longer than the length of the floor panels to be used, so that you have a mould for the remaining floor to be laid. Place the mould across a diagonal over the chalk line. Preferably screw the mould onto the floor if it is a wooden subfloor.



Step 3 - Laying the floor

- To achieve a good end result it is essential to work accurately when laying the first series of floor panels. The floor panels should always be placed in the glue before the previous row and then slid into the correct position against the last laid floor panel.



- The point of the pattern should connect to the chalk line accurately. When the first row of floor panels in the room has been laid, it will serve as a mould for the remaining following rows on the left and right side.
- Frequently check if the chalk line is still visible while installing the floor.
- Make sure that you leave an expansion gap with the same thickness as the floor when you install the panel against the wall. These gaps will be covered by skirting boards afterwards.

AFTER INSTALLATION

It is recommendable to put a heavy weight on the glued floor for at least 12 hours so that it is pressed into the glue bed well.

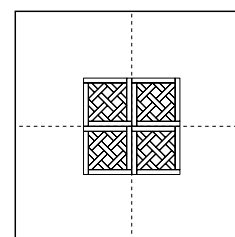
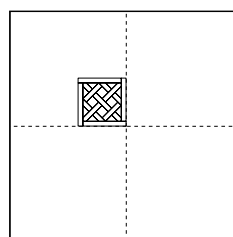
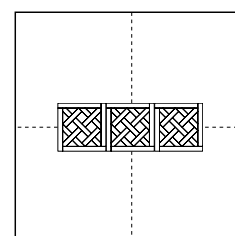
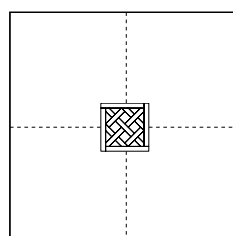
The freshly glued floor may not be used for 24 hours or otherwise if the glue instructions say differently.

You cannot finish the floor with skirtings, or clean it or apply oil on it afterwards until after the floor has dried for 24 hours. Use oxidative oiled floor Solidfloor™ Hardwax oil if you want to apply oil after installation.

INSTALLATION OF ENGINEERED PLANK FLOORING IN A TILE PATTERN

You should, in principle, use the same working method for laying the tile pattern as you did for the herringbone or the Hungarian point pattern. The only thing you have to do differently is that you draw two chalk lines; one across the middle of the length and another one across the middle of the width of the room. You do not need the mould either.

Carefully consider how you want to lay the floor, for example:



INSTALLATION INSTRUCTIONS



EN

MAINTENANCE

Good maintenance will increase the life of your floor. For proper maintenance, we refer you to the maintenance instructions. Protect your floor by placing a good floor mat near the door in order to prevent the entry of sand. We also advise you to protect your floor during use by providing furniture and chair feet with felt.

HUMIDITY

Wood is a natural product and reacts to the conditions of the room in which it is installed. For example, shrinkage or cracking can occur when the humidity is too low. The optimal air humidity in the room should be between 40% and 65% for a wooden floor. If the value is below 40%, a humidifier should be used. Despite these measures, there is a small chance that gaps, cracks or checks may occur, in particular, when under floor heating is used or when the air humidity is low.

GUARANTEE:

If you have any doubt about how to install the floor panels, please always contact your supplier before you continue working. The final result depends greatly on the conditions under which the floor panels have been laid. Check our guarantee provisions for all details!


Important: Preserve your payment receipt, as well as the guarantee certificate which is included in each pack.

MAINTENANCE INSTRUCTIONS



IT IS IMPORTANT TO PROTECT AND TO MAINTAIN YOUR WOODEN FLOOR! REGULAR MAINTENANCE WILL PROLONG ITS LIFESPAN.

Within the Solidfloor collections, three types of floors can be distinguished with regards to the type of finish:







O₂ Oxidatively oiled floors (O₂) **HS** High Solid oiled floors (HS)  Lacquered floors

All oxidatively oiled floors need to be treated with Solidfloor™ Ultimate Hardwax oil after the floor has been installed. This is not the case with the so-called High Solid oiled floors; these floors only require the first oil-treatment maintenance after one year (or earlier in case of intensive use). For lacquered floors, periodic maintenance with Solidfloor Wood Cleaner and a polish is sufficient. Please consult the technical information on www.solidfloor.com to determine which treatment for your floor is needed. Make sure to acquire information as to whether to use a white or natural coloured oil.

Please take the following precautions:

- Regular vacuum cleaning or sweeping with a soft broom will reduce the risk of scratches.
- Use a good quality doormat. Dirt is the main cause of wear on wooden floors.
Placing a doormat outside and inside will help to catch dirt and sand that might otherwise leave scratches in the surface of the wood.
- Put protective felt pads under your furniture to reduce the risk of scratches.
- Lift rather than drag heavy furniture when moving it.
- Any water or other spills should be mopped up immediately to prevent stains and discolouration.

MAINTENANCE SCHEDULE:

Type of maintenance	Vacuum clean or sweep	Clean with Solidfloor™ Wood Cleaner ***	Cleaning with Solidfloor Wood Cleaner and oil with Solidfloor™ Ultimate Hardwax oil, natural or white***	Contact your supplier	Maintenance with polish
Maintenance interval					
Immediately after laying the floor (Only oxidatively oiled floors)	O₂ HS 		O₂		
Daily	O₂ HS 				
Fortnightly or monthly*		O₂ HS 			
Periodically / annually when dirty**			O₂ HS		
When the floor looks very 'rough'***			O₂ HS		 ****
When the floor is damaged				O₂ HS	

* Use a damp and lint-free cloth. Never use too much water. This can damage the floor as it causes the wood to swell and expand. Never use water without wood cleaner!

** If some parts of the floor start to look rough over time or if the floor is difficult to clean, clean the floor with Solidfloor™ Wood Cleaner and treat it with Solidfloor™ Ultimate Hardwax oil. If the floor is well maintained, you should not need to do this more than once a year. But do not wait until the oil coating is worn.

*** For cleaning and oiling instructions check the label of the Solidfloor™ Wood Cleaner and the Solidfloor™ Ultimate Hardwax oil.

**** Use i.c.w. polish remover.

HUMIDITY

Wood is a natural product and reacts to the conditions of the room in which it is installed. For example, shrinkage or cracking can occur when the humidity is too low. The optimal air humidity in the room should be between 40% and 65% for a wooden floor. If the value is below 40%, a humidifier should be used. Despite these measures, there is a small chance that gaps, cracks or checks may occur, in particular, when under floor heating is used or when the air humidity is low.

MAINTENANCE INSTRUCTIONS



SOLIDFLOOR™ WOOD CLEANER (Art no.: 1171467)
CLEANING AGENT FOR ALL VARNISHED AND OILED WOODEN FLOORS.



APPLICATIONS

Solidfloor™ Wood Cleaner cleans all varnished and oiled wooden floors

CONTAINS

Solidfloor™ Wood Cleaner is based on polyethylene glycols.

TECHNICAL DATA

Working temperature 10 - 25 °C.

Dilution: with water, depending on the amount of dirt 1:100 to 1:50. Warm water improves the cleaning result.

Storage: away from frost.

Packing: 1 litre.

INSTRUCTIONS FOR USE

Dilute the Solidfloor™ Wood Cleaner with hot water (100 up to 200 ml to 10 litres). Clean with a damp cloth or mop. Let it dry properly.

IMPORTANT:

Never use too much water. This can damage the wooden floor as it causes the wood to swell and expand. Check the instructions on the label of the Solidfloor™ Wood Cleaner before cleaning.

The above product information and recommendations are given in good faith and based on practical tests and development. We cannot assume responsibility for any work as the ultimate results depend on factors beyond our direct control. In cases of doubt always test the product in advance.

MAINTENANCE INSTRUCTIONS



METHOD FOR OILING THE FLOOR BY HAND WITH SOLIDFLOOR™ ULTIMATE HARDWAX OIL HARDWAX OIL WHITE (Art no.: 1138025) HARDWAX OIL NATURAL (Art no.: 1138024)

Requirements:



SOLIDFLOOR™ ULTIMATE HARDWAX OIL IS A MAINTENANCE OIL BASED ON VEGETABLE OILS AND WAXES

CHARACTERISTICS

Solidfloor™ Ultimate Hardwax oil is a high quality product for the maintenance of all oiled surfaces. The Ultimate Hardwax oil is resistant to wine, beer, cola, coffee, tea, fruit juices, milk and water according to DIN 68861 1A. Resistant to saliva and sweat according to DIN 53160. Meets all the demands of children's toys according to EN 71.

APPLICATION

The Ultimate Hardware oil is suitable for all kinds of oiled wooden floorings. Frequent use will prevent the formation of walking routes.

CONTENT:

Aliphatic hydrocarbons, castor oil, natural resin ester, silicic acids, silicate pigments, zinc carbonate, microwax, bentonite, cobalt, zirconium, zinc and manganese octoate as drying components.

TECHNICAL DATA

Working temperature	: Not below 16 °C.
Drying time	: 6 to 12 hours (depending on temperature and ventilation).
Material usage	: 1 litre = approx. 70 m2 in one layer.
Cleaning tools	: With Solidfloor™ Wood Cleaner.
Storage	: Cool and dry. In case of an already opened packaging skin forming could appear. The skin has to be removed before using the product.
Safety warning	: Put clothes drenched with Ultimate Hardwax oil in water (danger of spontaneous combustion!). Afterwards they can be disposed off with normal garbage. ChemVOCVerfV: 690 g/l (limit 01.01.2010: 700 g/l Cat. A/f).
Packing	: 1 litre.

USE

Stir well before use. The Ultimate Hardwax oil is ready to use. The underlayment must be dry and free of dust and grease. First clean the surface to be treated with a neutral cleaner (such as Solidfloor™ Wood Cleaner). Apply Solidfloor™ Ultimate Hardwax oil onto small areas in a thin and even layer with a cloth with the grain of the wood. Use a brush to spread out any excess oil you may find in the bevel. For treatment of the rough surfaces we recommend using a mop instead of a cloth. For larger areas we recommend using a buffing machine. Dribble the Ultimate Hardwax oil in on the surface in the shape of a snake and polish it in with a buffing machine with a thick white pad. Ensure proper ventilation. Ask your Solidfloor dealer for the Solidfloor maintenance products.

The above product information and recommendations are given in good faith and based on practical tests and experience, however, we cannot assume responsibility for any work because of the introduction of new materials, different working methods and other factors beyond our direct control. In cases of doubt always test the product in advance.

GUIDELINES UNDER FLOOR HEATING AND COOLING



Installing a Solidfloor floor in combination with under floor heating and cooling can be easily achieved and will ensure your home is as comfortable as possible.

When installing a wooden floor in combination with under floor heating and cooling you must follow a number of specific guidelines.

The Solidfloor guarantee applies to wooden floors that are installed in combination with an under floor heating or cooling system as long as the points below are observed and implemented.

If these points have not been followed, the Solidfloor guarantee will not apply. Wood is a natural material and may warp (shrink or expand) when the temperature or humidity level changes. It is, therefore, very important that the under floor heating and cooling system is correctly operated. This will ensure that a wooden floor is not negatively influenced.

GUIDELINES FOR UNDER FLOOR HEATING

- All floors in the Solidfloor collections, up to a maximum width of 26 cm are suitable for under floor heating. We always recommend to install a system for the recording of the humidity and temperature. It is recommendable to install a Fidbox for this. For widths of 26cm in every room and at each 50m² in a room a Fidbox needs to be installed. For more information www.solidfloor.com/fidbox.
- With under floor heating using hot water: the thickness of the concrete floor screed/anhydrite floor that is / applied over the heating pipes must be 30mm at least.
- The prescribed heating protocol must be followed regardless of the season to achieve the allowed moisture percentage of the screed. The screed must be at least 28 days old before the under floor heating is turned on.
- The moisture percentage of the concrete screed may not be higher than 1.5 % before the wooden floor is installed. This moisture percentage may not be higher than 0.3 % with regard to an anhydrite floor.
- The wooden floor panels must be allowed to acclimatise for at least 48 hours in their unopened packaging in the room where they are to be installed.
- Switch off the central heating system two days before the wooden floor is to be installed. The room temperature, however, may not be lower than 18 °C when the floor is installed.
- We recommend using a perforated underlay when installing a floating floor and, if gluing, use a suitable water-free glue. For more information consult your glue supplier. Nails cannot be used when installing a floor on under floor heating.
- When the wooden floor has been installed, the under floor heating can be put into operation in accordance with the prescribed heating protocol.
- In principle, the temperature of the surface of the floor has to be as low as possible. To avoid overheating of part panels you should heat the entire surface as much as possible. Up to 30 % of the floor area may be covered by furniture and rugs.
- In the dry periods of the year, you must use a humidifier to keep the humidity in the room at least at 40 %.

GUIDELINES UNDER FLOOR HEATING AND COOLING



GUIDELINES FOR FLOOR COOLING

Regarding floor cooling systems, it is important that an advanced control and protection system is used to prevent internal condensation (dew point control). To prevent damage to the floor, the temperature of the incoming cooling water is not unlimited and must not come below the dew point temperature. Lower temperatures cause condensation in the floor and can cause damage to the flooring, such as disking, deformity, expansion and opening of the gaps.

A good safety system includes automatic sensors that detect when the dew point (= start of condensation) is reached in the parquet and then switches off the cooling.

Room thermostats should never be set to a temperature lower than 24 °C. In addition, the thermostat should never be set to a temperature which is 5 °C lower than the room temperature. E.g. when the room temperature 32 °C, the room thermostat can't be set lower than 27 °C.

For effective floor cooling, a maximum heat resistance of $<0.09 \text{ m}^2 \text{ K} / \text{W}$ is prescribed. The heat resistance of the floors in the Solidfloor collections vary and can be higher. Keep into account a certain loss of capacity.

THE HEATING PROTOCOL FOR FIRST TIME USE

The under floor system temperature should be set to 20 °C the first day. The temperature must subsequently be increased by 5 °C every 24 hours. The system temperature may not be higher than 45 °C and the floor temperature should amount to no more than 28 °C. Note! The same applies under furniture, carpets and heating pipes. This maximum temperature must be maintained for a few days. It is important to know the thickness of the screed to be able to calculate the exact number of days. If the screed is 5 cm thick, this means that you must maintain the maximum temperature for 5 days. The number of days is, therefore, the same as the number of centimetres that your floor is thick.

- The procedure must be followed in the reverse order when the system is switched off. Recommendation: do not set the thermostat to a low level in the evening and again to a high level in the morning to ensure temperature fluctuations are avoided as much as possible.
- The total procedure will take approximately 14 days. During this procedure, ensure that there is good ventilation in all the rooms so that any moisture that is released can be properly discharged.

HUMIDITY

Wood is a natural product and reacts to the conditions of the room in which it is installed. For example, shrinkage or cracking can occur when the humidity is too low. The optimal air humidity in the room should be between 40% and 65% for a wooden floor. If the value is below 40%, a humidifier should be used. Despite these measures, there is a small chance that gaps, cracks or checks may occur, in particular, when under floor heating is used or when the air humidity is low.

Beech, Ash, Maple and Jatoba are wood types that easily warp and, therefore, are not recommended for use in combination with under floor heating or cooling.

The Solidfloor guarantee will not apply when these wood types are installed in combination with under floor heating or cooling.

Note:

A wooden floor may not be installed on under floor heating systems that have been installed before 1990. These systems generally produce excessive temperatures. Ensure that you know that your under floor heating system is suitable for use in combination with wooden floors.

GUARANTEE

You will have a 25-year guarantee on a wooden floor from the Solidfloor collection as from the purchase date on the basis of the terms and conditions below:

- We provide a guarantee with regard to defects and/or shortcomings that were already present when delivery took place but that were not visible to the naked eye.

We provide a guarantee with regard to normal use in residential properties and with regard to contract work such as offices, hotel rooms and boutiques. Humid or wet rooms are expressly excluded from this guarantee.

- The floor has been installed in accordance with the Solidfloor installation instructions and is maintained using the Solidfloor maintenance products.

PROVISIONS

- The guarantee shall will if a complaint has been reported to the Solidfloor supplier where the floor was purchased within 30 days after the issue of the complaint has been discovered or should have been discovered in all reasonableness. Please report complaints in writing and include the original invoice and warranty certificate.
- Should it be deemed that the guarantee applies, either the faulty floor section will only be replaced or the faulty floor sections will only be reimbursed in accordance with the provisions made in this guarantee certificate.
- Should the relevant wooden floor from the Solidfloor collection no longer be available, an equivalent alternative will be provided.
- This guarantee only relates to the supplied floor sections and, therefore, not to labour costs, additional materials and any other consequential damage that may ensue.
- The guarantee period will remain in force unchanged in case of acceptance and resolving the complaint and will never be extended.
- Should a dispute arise related to the guarantee with regard to your "Solidfloor", either party may appeal to an independent expert who will issue a binding decision provided that consumers who do not act in a professional or commercial capacity will be entitled to bring this dispute to the normal court within one month after we have invoked this stipulation. Should this clause be applied, the costs must be agreed upon in advance in writing amongst the parties.
- This guarantee is an addition and not an exclusion of the statutory rights that the consumer who does not act in a professional or commercial capacity has.

EXCLUSIONS

- If the floor has not been installed in accordance with the installation instructions.
- If the defects could already be seen before the floor panel was installed.
- If the defects and/or shortcomings occurred due to moisture and/or water damage and/or other causes that cannot be attributed to us as the manufacturer/supplier of the floor.
- If the defects and/or shortcomings occurred due to incorrect use or negligent acting and when used for another objective than for what it is intended as well as if installation, maintenance instructions or guidelines regarding humidity and under floor heating or cooling have been ignored.
- If there are visual shortcomings that occurred due to deformation of the panels due to changing climate conditions, in case of colour differences due to the influence of sunlight and the consequences of normal ageing and/or wear phenomena of the finishing layer.
- This guarantee will only apply with regard to the first owner and the first installation of the floor.
- If there are stains or mechanical damage to the surface (dents, scratches, etc.) due to negligent treatment during transportation and storage and in case of damage as a result of stilettos, furniture, stones, sand, pets, etc.
- This guarantee certificate will only be governed by Dutch law.
All disputes arising from this agreement will be submitted to the competent court in Amsterdam.