

SUSTAINABLE PRODUCT
NON PVC

WISE

INSTALLATION INSTRUCTIONS FOR WISE AS GLUE DOWN

AMORIM

INSTALLATION INSTRUCTIONS FOR WISE AS GLUE DOWN

(Preparation)

Subfloor preparation
The key to success when installing WISE as Glue Down is to achieve a good bond between the subfloor and WISE. Proper preparation of the surface is the most important factor in achieving this bond.
Whatever levelling compound is used to level, smooth or repair a subfloor surface, it will only be as strong as the surface to which it is bonded. The surface, therefore, must be sound, clean and free of oil, grease, wax, dirt, asphalt, curing compounds, latex and gypsum compounds, dust, paint, or any contaminant, which might act as a bond breaker.
The methods required to properly prepare the subfloor vary with the type of subfloor, its surface and condition. Several methods of preparing a subfloor are available. Some methods are used because they are cheaper, easier or faster, depending upon the size of the job. However, taking short cuts in proper subfloor preparation can derive in installation problems and failures.
This technical information is intended to give recommendations for many common subfloor conditions and its proper preparation.
WISE as Glue-Down can be installed in interior installation sites, on or above grade, on concrete or wooden subfloors and also in almost all domestic areas and in most commercial areas, except in saunas and persistently wet areas. It is possible to use WISE as Glue-Down floors in other areas like bathrooms, or areas where spillages frequently occur since it will not swell when exposed to water. However, in order to prevent the water to penetrate under the laid floor (which can cause adhesive deterioration and create conditions for growing of fungus, mould or smell), a two components polyurethane water resistant adhesive must be used and the joints around the walls and furniture must be sealed with a polyurethane sealant.

Screeds with underfloor heating
When using WISE as Glue-Down in a heated subfloor installation, the surface temperature of the subfloor must not exceed 28°C (82°F).
All hot water pipes and electrical heating elements should be embedded in concrete, in accordance with the appropriate building codes and regulations. Depending on the system involved, this kind of screed is 45-65 mm (2 to 3 inches) thick. Testing the moisture of the subfloor is always possible if the installer of the screed marked the measuring points. This is the only way to avoid damaging of the heating pipes while the test samples are taken from the screed. If there are no marks, a complaint must be made to the contractor.
Drying out can only be done with a suitable period of drying through heating. For this reason, the screed must be heated up before installing the flooring. Remember that rugs or mats placed on top of the floor may function as heat accumulators and will increase the floor surface temperature more than the maximum surface temperature recommended (must not exceed 20 - 22 °C).

The drying of a heated subfloor has to be made by turning the heating on/off with a pause before installation of the floor, following a documented protocol. After that you can begin the heating phase.
The beginning of the heating phase in concrete subfloors is to be made not before 21 days after complete curing of the substrate. The heating phase has to begin with running temperature of 25 °C, (78°F) during 3 days.
The subfloor should be in place and cured for at least 60-90 days.
The temperature should then be increased each day until the maximum temperature allowed according to the manufacturer system. This maximum value should be kept for at least 72 hours and maintained for 5-7 days without any turning off. The decrease of temperature is made by reducing it gradually every day until 18°C on the surface is achieved.
The heating system must be turned on eight days before the application of the leveling compound, so that the concrete slab dries completely.
The heat should be turned off before the levelling compound is applied. Then 3 days after the flooring is installed, increase slowly to a normal level. A maximum of 28°C (82°F) should be maintained on the subfloor surface.

Important Notes
• Failure to observe these precautions can cause a build-up of moisture or partial evaporation of the levelling compound, or fast drying of adhesive.
• If the heat is turned on when the adhered material has not been conditioned properly on-site for at least 7 days and is not completely dry, the material may shrink. Avoid abruptly turning on radiant heat when cooler weather prevails as it will subject the flooring to rapid movement of expansion and or contraction. Gradually increase temperature regardless of the season.
• The adhesive used must be suitable for heated subfloors.
• No responsibility will be accepted in case of malfunctioning of the heating system and related problems.
• For WISE (as Glue-Down) the surface temperature of the subfloor must not exceed 28°C (82°F). For detailed information, follow the instructions supplied by the subfloor heating system manufacturer/contractor, or contact your supplier. Remember that rugs or mats placed on top of the floor may function as heat accumulators and will increase the floor surface temperature more than the maximum surface temperature recommended (must not exceed 20 - 22 °C). • For detailed information, follow the instructions supplied by the subfloor heating system manufacturer/contractor, or contact your supplier.

Unsuitable temperature and ventilation conditions
The WISE as Glue-Down should be installed at approximately the same temperature that it will be exposed to, later on during use.
The WISE as Glue-Down should not be installed at a subfloor temperature below 18°C (65°F) and the relative humidity should be between 35% to 65% as this kind of indoor climate can have adverse effects on the flooring itself and in its processing. (For example, low temperatures lead to a considerable increase in the setting time and reaction time of adhesives and levelling compounds; the drying time for primers and levelling compounds and the airing time for adhesives are likewise increased by high humidity).
The corresponding time details given by the manufacturers of adhesives are based on a temperature of 20 °C (68 °F) and 50 % relative humidity as a general rule. This is why floor temperature and humidity measurements are helpful.

Expansion joints
Expansion joints in the building must not be closed to the flooring. If it is laid and stuck across expansion joints in the building, it may tear, as it is fixed firmly in place and cannot "work" with the movements of the building. Expansion joints for the building are found, as a rule, in large areas. Expansion joints, which do not run through the whole of the building (e.g. construction joints in the screed), but are designed merely to absorb tension during setting, are now what is meant here. The contractor will, however, be well advised to consult the customer concerning the connection to expansion joints.

(Prior to installation)

Transport, storage and acclimatisation
Transport and store the cartons horizontally.
Packed planks should be acclimatized at the job site in a dry, well-ventilated area for a minimum of 48 hours so that flooring may acclimate.
Remove planks from packages just before starting installation.
During storage and installation, maintain temperature and relative humidity to a level consistent with the conditions which will prevail when the building is occupied. In most cases, this means maintaining a temperature range from 18°C to 28°C (65°F to 82°F) and relative humidity range from 35% to 65%. In order to reach this climate, use heating or air conditioning in the appropriate duration of time before starting the installation.

Site inspection
Prior to installation, please inspect the planks in daylight for any visible faults or damage, and also check if the subfloor and site conditions are in accordance with the specifications described within these instructions.
Amorim Revestimentos cannot be held responsible for claims associated with improper subfloors, improper applications, adhesives, varnishes and the use of maintenance products not recommended, or detectable defects verifiable prior to installation.

Alkaline testing PH)
In addition to moisture testing, you may also test the concrete for alkalinity. It is quite possible during curing, especially on newly poured slabs, that alkaline salts were carried to the surface by moisture.
These alkaline salt deposits will adversely affect the adhesive bond.
You can test for alkalinity of the concrete with a special pH testing paper. If you have a pH reading of 10 or higher, you must neutralise the alkalinity before beginning the installation.

Subfloor types
The following subfloors are found in practice: • Cement screeds
• Anhydrite or plaster screeds
• Mastic asphalt
• Concrete
• Chipboard and plywood with tongue-and-groove • Artificial or natural stone, ceramic tile floorings
• Coatings and paint
• Screeds and underfloor heating

Cement screeds
This is the most common type in building construction. Due to the shrinkage tension occurring during the setting phase, separation joints (dummy joints) are laid out during insertion about 6m (236.2") away from each other. Cement screeds are absorbent. Dispersion adhesives may be used.

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(Prior to installation)

Plaster or anhydrite screeds
Attention must be paid to the low permissible moisture of <0.5 %. These screeds can be applied over large surface areas without separation joints. Moisture entering and remaining in the screed after application will damage the screed. Generally speaking, these screeds must be sanded, brushed, vacuumed and treated with primers. In such a case, the reduced absorbency as a result of the primer has to be compensated by using the appropriate thickness of levelling compound (not less than 2mm (0.08")) if dispersion adhesives are used.

Mastic asphalt
This is applied in a hot, molten condition (200 - 220 °C (392°F - 428°F)), smoothed and rubbed over with fine quartz sand. If applied properly, mastic asphalt can be used to cover large surfaces without cracks. It can be walked on as soon as it is cold. Mastic asphalt has no pores, and when installed in two layers acts as a damp-proof course in building construction.
If a dispersion adhesive is used, mastic asphalt must be levelled with a minimum of 2mm (0.08") layer thickness. If contact adhesive is used, a levelling compound must also be applied, in order to avoid direct contact between the mastic asphalt and the solvents contained in the adhesive.
If reaction adhesive is used, only polyurethane adhesive may be used directly on mastic asphalt.

Concrete
The moisture content of concrete subfloors can be determined with a CM meter. If you decide to use it, you must take material from the entire thickness of the substrate.
The most reliable method for determining the moisture content is drying in a heating cabinet; however, this is only possible in a laboratory.
If there are excessive amounts of residual moisture, this can be sealed on the surface using special two-component primers. You must consult the supplier concerned.

Pre-treatment
Subfloors of this type have to be roughened (e.g. by sanding, brushing with wire brushes, sandblasting), primed and levelled. To find out how much (if any) preparatory work will be necessary, it is essential to fix test strips. (Technical advice should be sought from the suppliers of levelling compounds and adhesives.)

Chipboard and plywood with tongue-and-groove
Fairly large surfaces can be installed without joints by gluing the tongue into the groove. Generally, only the joints between the boards are levelled or sanded. Whether or not a primer is necessary will depend on the surface quality of the boards concerned.
If the joints are not glued, they will show later on the surface of the flooring.

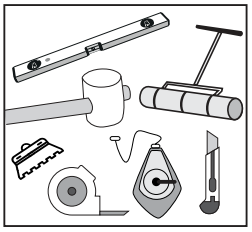
Artificial or natural stone and ceramic tile floorings
Subfloors of this type are non-absorbent. All soiling (e.g. grease, waxes, soap, etc.) must be thoroughly removed mechanically and with detergents, especially if floors like this have already been in use for some time. Any loose tiles must be re-fixed. Subfloors of this type have to be roughened (e.g. by sanding, brushing with wire brushes, sandblasting), primed and levelled.

Coatings and paint
These are usually very low in pores or have none. Any flaky parts must be scrupulously removed. As the composition or bonding agent in such coatings is mostly unknown, trial strips with different adhesives will have to be tested, while simultaneously advice must be given from the adhesive manufacturer. Subfloors of this type have to be roughened (e.g. by sanding, brushing with wire brushes, sandblasting), have a primer and levelled. In order to have a good compatibility between subfloor and the glue, please use the glues recommended and follow the recommendations very carefully, as well as the information from technical data sheets.

Wood subfloors or particle board subfloors must be mechanically fixed, e.g. by using screws, all tongue and groove joints shall be glued with a suitable adhesive and the joints firmly closed.

(During installation)

Tools required



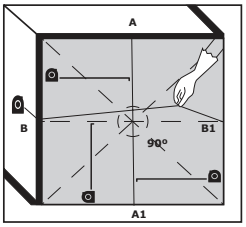
Tape measure, craft knife, pencil, straight edge,
chalk line, trowel or pressor roller.

Moisture protection
Despite its age, there is always a risk of moisture in subfloors, for that reason it is necessary to ensure that an efficient moisture barrier is installed.
Subfloors must be permanently dry on concrete subfloors without radiant heat. Consider the maximum humidity less than 75% RH or conduct calcium chloride moisture tests to ensure that moisture emission levels are less than 3lbs/1000ft2/24 hours (USA and Canada), or Calcium Carbide (CM) Test:

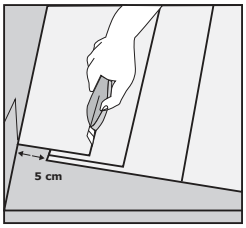
Type of Subfloor	Moisture content CM% Heated	Non-heated
Concrete	1,5	2,0
Anhydrite	0,3	0,5

Subfloors to be covered with WISE as Glue-Down (vapour-proof) require sealing (insulation) against rising damp if there is no basement. Water-repellent concrete, crawl spaces, or similar materials are not sufficient to prevent the migration of humidity into the subfloor.

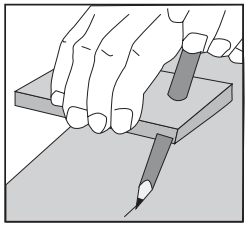
Measurements



Check the wall where you are starting the installation and make sure it is squared to the opposite wall. Simply measure the room from the opposite ends of the wall to the firewall. If measurements are different make the necessary adjustments on the first row. Draw a line using a chalk-line.



Make sure that the widths of the first and last rows planks are equal or bigger than 5cm (2") of the plank.



If the wall is very uneven, cut the planks with the corresponding width to eliminate the unevenness. Place the first plank on top of the second row and cut as indicated. Or draw the outline of the wall by "sliding" a cut off-piece along the wall. Then cut the planks along the line.

Adhesive recommendation
Contact your supplier.

WISE as Glue-Down shade variation is an inherent and attractive characteristic. To achieve the most pleasant blend of shades, shuffle the planks before laying.

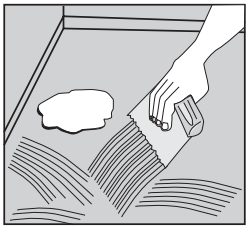
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Laying

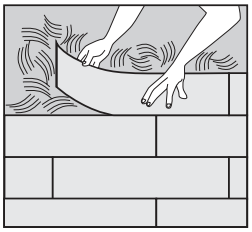
On wooden floors, we recommend laying, WISE crossways to the existing floorboard.

1



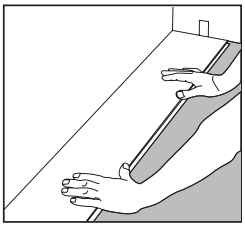
Stir the adhesive before using. Avoid adhesive lumps. We recommend starting laying in the right-hand corner. Apply the adhesive evenly on the sub-floor with the recommended notched trowel. Avoid pooling of the adhesive.

2



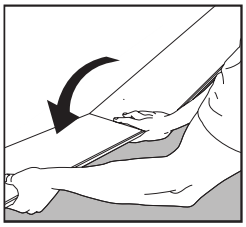
Lay the floor in the adhesive, following the technical data sheets and recommendations of adhesive producer. The backing of the tiles has to be moistened with adhesive. In case of doubt, check by lifting it. When laying the tiles, use only manual pressure.

3



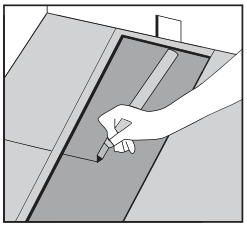
Turn the tongue side of the plank facing the wall.

4



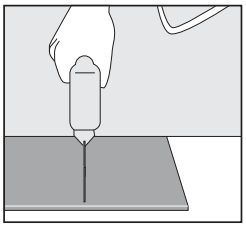
Hold the next plank against the first at an angle to the first one and lay it flat on the floor.
Complete the first row in the same way.

5



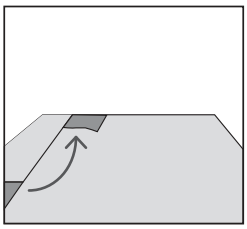
Cut the final plank of the first row to the correct length.
Place the final plank face down and the short side without the locking strip towards the wall.

6



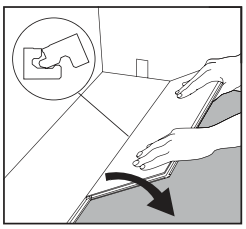
Mark where the plank is to be cut and place it on the work surface and cut to size using any kind of saw.

7



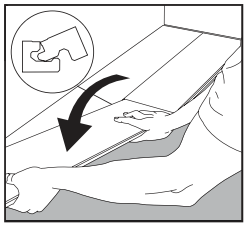
Make sure that the long sides of the planks make a straight line. Use the cut piece of the plank from the previous row to start the next one. However it must be at least 30cm (12") long. If the piece is too short, start with a new board and cut it in half.
Always ensure that the end joints are staggered at least 30cm (12"). Tiles with 605 x 445 (23-7/8" x 17-1/2"), "brick" or "half brick" installation method must be used.

8



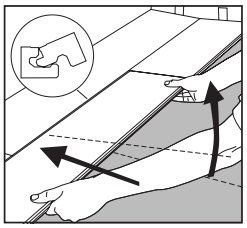
Place the first plank of the new row with the tongue side at an angle against the groove side of the plank in the previous row.
Press forward and lay it flat at the same time.

9



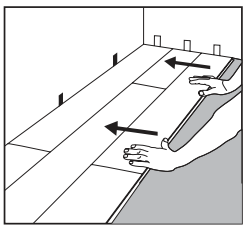
Place the short end of the plank at an angle against the previous installed plank and fold down.
Ensure that the plank is positioned on the integral locking strip of the plank in the previous row.

10



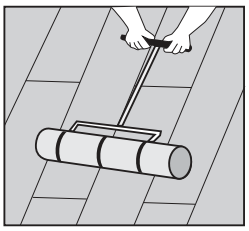
Lift the plank (together with the previous one laid in the same row) slightly up (about 30mm (1.2"), push it against the row in front and then put it down.
Tip: This movement requires some gentle adjustments on the pressing angle.

11



Proceed the installation as described above until reaching the opposite wall.

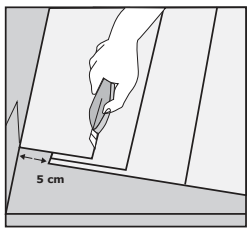
12



The floor must be rolled with a 50-Kg roller, every 30 minutes, and upon completion of installation, to ensure that the tiles are firmly bedded into the adhesive.

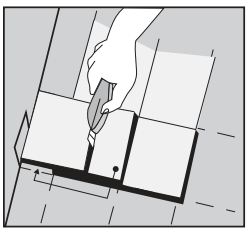
(Last Row)

13



Measure and cut the planks in the last row to the correct size.
No plank should be less than 5cm (2") wide.

14



The last and first plank can be cut in the correct width. Place the last plank on top the second to last plank.
Mark the plank with the help of a piece of plank without locking the strip.

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