Furlong - Recommended preparation and installation

Solid Wood

Solid wood flooring is by nature structurally more unstable than engineered wood flooring. This is because all the grain is running in one direction and is not counter-balanced in any way. For this reason Furlong Wood Flooring recommends that all our solid wood flooring is permanently fixed to the subfloor or secret nailed.

There are three main types of subfloor encountered in the domestic market, the treatment of each is considered below.

Wooden subfloors/floorboards

If the existing floorboards are level, sound and with no lateral movement then a new solid floor can be fixed directly over the floorboards by secret nailing. However, it must be installed at a 90 degree angle to the existing floorboards to prevent the possibility of joints lining up.

Look for signs of mould, fungi and rotten timber in existing floorboards. These boards would need to be treated or replaced before any works can commence. If there is movement in the floorboards they need to be firmed up by additional fixings or packing out the joists. If uneven, they can be sanded to level or alternatively ply can be laid over the top, fixed at 4" centres with ring shank nails or screws, with the new wooden floor laid over in any direction – again being fixed by secret nailing. Always check the moisture content of the plywood – which should be between 9-11%.

Chipboard subfloors

Furlong Wood Flooring does not recommend fixing a new solid wood floor directly on to chipboard subfloors as they are prone to movement. Furlong Wood Flooring recommends fixing ply at 4" centres, again with ring shank nails or screws, which will firm up the subfloor and the new solid floor, can then be laid using secret nailing.

Furlong Wood Flooring also recommends that protimeter readings are taken in the area in which the flooring is to be installed to check the following:

- Air temperature – ideally between 18 degree C and 23 degree C
- Air humidity – ideally between 45% and 60%
- Subfloor moisture content

It is also important to check that the air flow beneath a wooden subfloor is free and air bricks are not blocked in any way.

Concrete Subfloors

It is important to check any subfloor prior to installation. When fitting to concrete subfloors, always check the following:

- Degree of level (BS8204) – SRI +/- 3mm over 3m.
- Moisture content – must not exceed 2.5%. For anhydrite subfloors, the moisture content must not exceed 0.6% (rarely found domestically).
- A newly poured subfloor requires a drying time of about 1 week per cm depth up to 5cm and 2 weeks per cm after that. For example, an 8cm subfloor requires 11 weeks of drying time prior to
- Laitance (crust formed on top of the floor – tap with hammer to see if it breaks up – remove if present).
- The subfloor is free from contamination, e.g., floor paint, adhesive residue, etc.

Also check the temperature and moisture in the air, as before. To ensure the subfloor is fit for purpose, Furlong Wood Flooring recommends:

- Applying a liquid Damp Proof Membrane,
- Applying 1 x coat neat primer,
- Applying a minimum of 3mm of water-based acrylic based levelling compound not patch screed or pour less than 3mm as it will not be strong enough to hold the wood down). If any other levelling compound is to be used, ensure it reached more than 25 Newtons in strength at 3mm thickness.

Furlong Wood Flooring recommends that a trowelled adhesive is used as it gives a greater coverage and surface contact.

Furlong - General installation guidance

- End joints should be randomly staggered by 30cm or more to prevent a brick bond appearance. It will also aid the strength of the floor. It is also recommended that the installer works from 2 or 3 packs simultaneously to ensure an even appearance and that each plank is visually checked before installation.
- Acclimatise the solid wood boards for at least 7 days, still in their packaging, laid flat in the centre of the room. During acclimatisation the room temperature must be between 18 degree C and 20 degree C and relative humidity between 45% and 60%.

Furlong - Recommended preparation and installation

Engineered Wood

Furlong Wood Flooring strongly recommends that every retailer/installer invests in a meter to measure humidity, temperature and moisture content in timber and concrete subfloors, ie., Protimeter or Tramex (or similar).

There are three main types of subfloor encountered in the domestic market, the treatment of each is considered below.

Wooden subfloors/floorboards

- Dry : Check moisture content of existing floorboards using appropriate meter. Ideally the moisture content should be similar to that of the new floor. If not, check air bricks are not blocked and that there are no obstructions to airflow.
- Level : Use flooring grade plywood, fixed with directional nails, to level old floorboards. The thickness required depends on the unevenness of the existing subfloor. Always check the moisture content of the plywood – which should be between 9-11%.
- Clean : Look for signs of mould, fungi and rotten timber. These boards would need to be treated or replaced before any works can commence.
- Sound : As above, check for rotten timbers as these cannot be fitted over or to. These should be replaced before the plywood is laid.

Furlong Wood Flooring does not recommend fixing a new wooden floor directly on to chipboard subfloors as they are prone to movement. Furlong Wood Flooring recommends fixing ply at 4” centres, again with ring shank nails or screws, which will firm up the subfloor and the new engineered floor, can then be laid as a floating floor.

Furlong - Recommended preparation and installation

Furlong Wood Flooring also recommends that protimeter readings are taken in the area in which the flooring is to be installed to check the following:

- Air temperature – ideally between 18 degree C and 23 degree C
- Air humidity – ideally between 45% and 60%
- Subfloor moisture content

It is also important to check that the air flow beneath a wooden subfloor is free and not blocked in any way.

Concrete Subfloors

It is important to check any subfloor prior to installation. When fitting direct to concrete subfloors, always check the following:

- Degree of level (BS8204) – SRI +/- 3mm over 3m.
- Moisture content – must not exceed 2.5%. For anhydrite subfloors, the moisture content must not exceed 0.6% (rarely found domestically).
- A newly poured subfloor requires a drying time of about 1 week per cm depth up to 5cm and 2 weeks per cm after that. For example, an 8cm subfloor requires 11 weeks of drying time prior to installation of a wood floor.
- Laitance (crust formed on top of the floor – tap with hammer to see if it breaks up remove if present).
- The subfloor is free from contamination, e.g., floor paint, adhesive residue, etc.

Also check the temperature and moisture in the air, as before. To ensure the subfloor is fit for purpose, Furlong Wood Flooring recommends:

- Applying a liquid Damp Proof Membrane,
- Applying 1 x coat neat primer,
- Applying a minimum of 3mm of water based acrylic based levelling compound, Stop (do not patch screed or pour less than 3mm as it will not be strong enough to hold the wood down). If any other levelling compound is to be used, ensure it reached more than 25 Newtons in strength at 3mm thickness.

It is important to check any subfloor prior to installation. When fitting as a floating floor to concrete subfloors, always check the following:

- Degree of level (BS8204) – SRI +/- 3mm over 3m.
- Moisture content – must not exceed 2.5%. For anhydrite subfloors, the moisture content must not exceed 0.6% (rarely found domestically).
- A newly poured subfloor requires a drying time of about 1 week per cm depth up to 5cm and 2 weeks per cm after that. For example, an 8cm subfloor requires 11 weeks of drying time prior to installation of a wood floor.
- Laitance (crust formed on top of the floor – tap with hammer to see if it breaks up – remove if present).
- The subfloor is free from contamination, e.g., floor paint, adhesive residue, etc.

Also check the temperature and moisture in the air, as before. To ensure the subfloor is fit for purpose, Furlong Wood Flooring recommends:

- Applying a Damp Proof Membrane prior to floating the wood floor. e.g Barrier Plus

Furlong - General installation guidance

- Always acclimatise any engineered wood flooring in the area in which it is to be installed for a minimum of 2 days (packaged laid flat in the centre of the room).
- Whenever installing new engineered flooring, always leave an expansion gap of 8-10mm around the perimeter and any static object, e.g., radiator pipes. These expansion gaps can be covered using skirtings/scotia and radiator rings.
- It is recommended that a break is left between rooms as there can be a difference in temperature and humidity from room to room. This difference could cause the flooring to expand and contract at different rates. Without a break, this may cause the flooring to lift or tent away from the subfloor.
- End joints should be randomly staggered by 30cm or more to prevent a brick bond appearance. It will also aid the strength of the floor. It is also recommended that the installer works from 2 or 3 packs simultaneously to ensure an even appearance and that each plank is visually checked before installation.

Furlong - Recommended preparation and installation

Under floor heating

The Jive, Woodland, Next Step, Montana & Aspect range is compatible with under floor heating (both water and electric). However, Furlong Wood Flooring recommends that checks are made with the under floor heating supplier to ensure the heating system selected is suitable for use with wood floors.

- Concrete or anhydrite subfloors laid over heating ducts should be at least 30mm thick.
- The concrete subfloor must be sufficiently dry. A newly poured subfloor requires drying time of about 1 week per cm depth up to 5cm and 2 weeks per cm after that. For example, an 8cm subfloor requires weeks of drying time prior to installation of an engineered wood floor. As before, readings should be taken with an appropriate meter. The moisture content of anhydrite subfloors must not exceed 0.6%.
- With water systems, prior to flooring installation, the heating must be run and checked for leaks and appropriate pressure. The temperature should be increased by 5 degree C each day up to its maximum and down by 5 degree C each day to 20 degree C.
- Acclimatise the wooden floor boards for at least 5 days, still in their packaging, laid flat in the centre of the room. During acclimatisation the room temperature must be between 18 degree C and 20 degree C and relative humidity between 45% and 60%.
- When installing with under floor heating, it is recommended to stick direct to the subfloor. However, it is also possible to use as a floating installation for Jive, Woodland, Next Step, Montana & Aspect provided that a low tog underlay is used.
- 3 days after installation, run the under floor heating, increasing the temperature at a rate of 5 degree C each day to the required level.
- The maximum water temperature of the heating installation may not exceed 45 degree C. The surface temperature (which is different from the air temperature_ of the floor may never exceed 27 degree C.
- Maintain a steady relative humidity between 45% and 60%.
- The temperature levels should be kept stable with no large fluctuations.