FLOOR INSTALLATION INSTRUCTIONS

ALL FLOORING MUST BE STORED IN THE CORRECT CONDITIONS PRIOR TO INSTALLING.

THIS PRODUCT "MUST NOT" BE STORED ON SITE UNTIL ALL SUB – FLOORS; PLASTERING, CEMENT WORK; DECORATING AND ALL OTHER WET WORK IS COMPLETELY DRY.

The owner has final responsibility to ensure that they have received the correct species and finish that was selected in store.

The installer/owner must inspect each board and deselect pieces with defects whatever the cause, under no circumstances should these be installed.

Manufacturer is suitable for conservatories and under-floor heating provided that the strict guidelines are followed engineered flooring may be glued, nailed or floated.

It is normal practice to use stain, putty or filler stick for defect correction or minor dimension differences.

Always work from 3 to 4 packs at a time mixing boards to achieve the appearance you require, taking into consideration the texture of the wood and the natural change in colours. Each floor, even each board is an individual piece of nature, which is guaranteed to make your home a place of beauty.

Note: Keep a record of all your readings for later reference and warranty enquires. We strongly recommend you keep a record of your moisture and humidity readings prior to installation. These measurements "will be" required by the manufacturer or supplier if there are any future problems.

ACCLIMATISING YOUR NEW FLOOR:

Engineered flooring does not require acclimatisation.

Prior to installation, it is the installer's responsibility to ensure that the internal site conditions are stable and are suitable for the installation of the engineered flooring. A room temperature of between 18 -22oC and relative humidity of between 40-60% must be maintained. Screed / concrete subfloors must be under 4% moisture content. Failure to do this could cause ongoing behavioural problems with the floor and will invalidate the warranty.

The building should be fully enclosed including doors and windows and heating should be operational.

All wet work must have been completed otherwise the moisture will transfer from walls floors and ceilings to the flooring. The delivered flooring must be left in the packaging with polythene wrapping intact until immediately prior to installation. The flooring should be stacked horizontally no more than 2 to 3 packs high or wide. Break up stacked cartons with battens to increase air circulation. Do not store next to radiators.

NEW BUILD AND RENOVATION PROJECTS:

A new installation site needs to dry out before engineered flooring is delivered. There is nearly always excessive moisture on either new construction sites or major refurbishment contracts. In these instances the wood will absorb the excess moisture; resulting in stress issues such as cupping, expanding and later contraction. Always protect against excessive

moisture ingression, where it helps use dehumidification equipment to stabilise the site conditions.

"Explanation of why the flooring should be one of the last jobs to be undertaken on site; Other trades can damage an excellent installation if care is not taken to safeguard against moisture ingression in hard wood floors. In new building projects moisture is introduced into the fabric throughout the construction process. Example; Under BS882 a concrete mix of (1:2:4) one cubic metre of concrete will contain 187 litres of water. This will have to dry out to below 4% moisture content before your flooring is installed. This may take up to a day per 1mm thickness of concrete to dry out, therefore you MUST always take a new moisture reading of the concrete sub floor before proceeding with the installation".

UNDER-FLOOR HEATING:

This product is suitable for use with under-floor heating systems subject to the manufacturer's recommended installation guidelines with timber flooring.

When laying a floor where under floor heating has been installed it is important to follow these guidelines:

- 1. The heating has been started up at least 3 weeks before laying the floor to achieve an ambient living environment.
- 2. Make sure that there is no water leaking from the pipes.
- 3. If the subfloor is concrete, make sure the concrete is dry. This means not more than 4% moisture, full depth of screed (WHEN THE FLOOR IS COLD).
- 4. The subfloor has to meet all the requirements for under floor heating.
- 5. Installation method should be as a floating floor and a combination underlay incorporating a DPM must always be used.
- 6. The surface temperature of the ground (below the engineered flooring) cannot exceed +27°C.
- 7. The heating has to be turned off 48 hours before laying the floor.
- 8. 2 days after laying the floor, the heating should be turned on gradually, increasing 2-3°C every 24 hours.
- 9. A minimum temperature of 18 °C must be maintained.

Always check the heating manufacturer's detailed instructions to ensure compatibility.

UNDERLAY:

Engineered flooring, if floated must be installed over a minimum of 2mm foam or poly type underlay. If an acoustic underlay has been installed first and is suitable according to manufacturer's instructions for flooring to be laid directly on top then a 2mm foam or poly type underlay is not necessary. However, if a 1.5mm cork or bitumen type acoustic barrier is used, then a 2mm foam in particular is recommended to install over same. The foam stops "grinding" between wood flooring and O.S.B., ply, etc. underneath.

Moisture inhibitors (such as 1000g poly) will only assist in protecting the floor from residual moisture when the concrete sub floor is 4% or less. They will not cover up an inherent moisture problem that should be addressed prior to installing the flooring.

EXPANSION

All engineered floors will react to changes in the presence of moisture within the boards. In the winter months when central heating is present, moisture leaves the wood causing the floor to contract. In the summer months when the humidity is higher the wood will expand. This needs to be allowed for during the fitting process. Therefore it is important when installing an engineered floor to leave the proper expansion area around the perimeter and to ensure the flooring is

fully acclimatised prior to installation. An expansion gap of 15mm must be in place around the "FULL" perimeter of the room. Flooring must "NOT" be run through doorways in to other rooms, instead it should be broken in the doorway again allowing 15mm; this gap is covered by a profile that is not fixed to the new flooring.

Please note with a large area (lengths in excess of 10 m) the floor must be divided with an expansion gap provided on both length and width. On completion, this gap is again covered by a profile that is not fixed to the new flooring

INSTALLATION OF FLOOR - ALL METHODS:

On completion of the preceding tasks the following steps should be followed for Installation.

- 1. Generally you will want the flooring to run the length of the room towards a natural source of light for aesthetic reasons.
- 2. Under cut the bottom of door frames, wardrobes, etc. to allow for the floor board and underlay to fit under it.
- 3. Open 3 or 4 packs boards to ensure an even distribution of colour and character.
- 4. If you discover a defective piece DO NOT LAY IT. You are the final judge of acceptable quality.
- 5. There will be no responsibility for costs associated with installing, finishing and/or replacing of flooring installed with obvious defects.
- 6. Mark a straight line parallel to the chosen wall, allowing a 15mm gap for expansion. It may be necessary to scribe the first row of boards to achieve correct alignment
- 7. The first board should be laid groove to the wall allowing for expansion of approx 15mm between the wall and first board
- 8. The last board in the first row should be fitted using a puller bar ensuring a 15mm expansion gap at the head of the board.
- 9. The second row and all following rows should be started with the off cut from the last board on the previous row. It is necessary to ensure that the end joints of adjoining rows are at least offset 150mm, this leaves the floor stronger and is visually more attractive.
- 10. Tapping blocks should be used to tap boards together, direct contact of hammer or mallet on the board edge is not recommended.

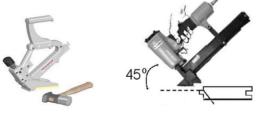
All perimeter gaps should be covered with skirting or Scotia using cover strips at thresholds.

NAILING ON TO WOODEN SUB-FLOOR:

Before you start make sure the sub-floor is in good shape. Bouncy, squeaky or uneven areas must be repaired. Note 18mm plywood, solid wood or battens hold porta-nails better than mdf or chipboard.

If fitting over an existing floor, Install at a right angle to floorboards, if this is not possible, fit 6mm plywood so that the direction can be changed. This way the floor will be stiffer and less prone to joints separating.

Securing can be done by using a porta-nailer or other form of secret nailing. The porta-nailer will fire a nail at a 45% angle through the tongue in to the batten or ply substructure. Secret nailing should be spaced at 6 to 8 inch 240 - 320mm intervals. (Figure#1)



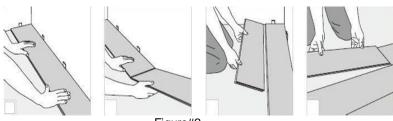
Figure#1

FLOATING INSTALLATION:

Specialist adhesive (or equivalent D3 rated PVA glue) should be applied to the head of the board in a 150mm strip. Along the length of the board apply glue every 150-200mm leaving a gap of 80-100mm between each application of glue. This is to allow any excess glue space to fill up, rather than glue being squeezed to surface.

The second row and all subsequent rows should be started with the off cut from the last board on the previous row. It is necessary to ensure that the end joints of adjoining rows are at least offset by 500mm, this leaves the floor stronger and is visually more attractive.

Tapping blocks should be used to tap boards together, direct contact of hammer or mallet on the board edge is not recommended. (Figure#2)



Figure#2

GLUING ON TO WOODEN OR CONCRETE SUB-FLOOR:

You must use a water-free, alcohol, MS or polyurethane glue, specially formulated for use with wood flooring. Installation can be by either the traditional trowel method or by applying a glue batten system, in all cases follow the instructions of the adhesive manufacturer.

With this method, you adhere direct to the sub floor and you do not need to apply glue to the tongue and groove.

Once the first row of boards is correctly aligned and glued in to place, weight them down while the glue sets.

Any surplus glue that may seep out on to the surface of the wood must be removed immediately with a damp cloth.

Flooring straps can be used to pull the boards together and hold them firm whilst the glue sets. (Figure#3)



Figure#3

FLOOR CARE AND MAINTENANCE GUIDE

Your new wood floor is durable and easy to maintain. This is because when you're walking on your floor, you're not walking on the wood, but on the factory prefinished UV cure polyurethane finish. This is what protects the wood and keeps your floor looking beautiful. The key to maintaining your floor is to protect and maintain this UV finish, and the following floor care recommendations will tell you how.

After installation

Immediately after installation, vacuum or dust mop your floor to remove any dirt or debris. Then clean the floor

with a recommended cleaner.

Routine maintenance

Dust mop or vacuum your wood floor regularly. Periodically, clean your floor with a recommended cleaner. You never need to wax your floor.

Preventive maintenance

Never clean your floor with water or a wet mop. Excess moisture can damage your floor.

Never use any kind of wood polish or solvent-based cleanser as they can dull or damage the finish.

Sand and dirt can be abrasive to wood floors. Place

protective mats by doorways to prevent dirt and moisture from being tracked across your floor. Area rugs are recommended in front of sinks and tubs with a non-abrasive and non-discoloring backing.

Install floor protectors on furniture legs.

Clean up spills quickly before they get sticky or dry.

Spike or stiletto high heel shoes, especially those with worn heels, can dent and scratch hardwood floors. They can produce pressure of over 1000 PSI and even the hardest wood type available will dent under that much

pressure

Pet nails can scratch your real wood floor. To minimize scratching, please keep pet nails trimmed. Please remember that your floor is not warranted against scratches from pet nails.

Maintain proper humidity conditions (40%-60%) in your home throughout the year. This may require the use of a humidifier or dehumidifier, depending on conditions. Avoid any extreme changes in humidity from season to season