

real wood  
engineered  
flooring

# 20mm B/C/D RUSTIC GRADE ENGINEERED WOOD FLOORING

CE

EN 14342:2005+A1:2008

Engineered wood flooring with T&G for interior use

Reaction to fire:	Df1-S1
Linked with the minimum mean density and minimum overall thickness	700kg/m <sup>3</sup> 18mm
Emission(release) of formaldehyde	E1
Emission of pentachlorophenol	≤5ppm
Breaking strength(max.load) and span	NPD
Slipperiness	NPD
Thermal conductivity:	0.13W(mk)
Biological durability:	Class 1
Declaration of Performance:	ELKEWOSZ01
Supplier Code:	TIMWF SZ

## General Instructions

Congratulations with your new 'Engineered Wood Flooring'. Before starting with the installation, it is critical that you read the following instructions carefully. Failure to do so will inevitably result in problems occurring and invalidate your warranty

**"INSTALLATION IMPLIES ACCEPTANCE"  
NO WARRANTY WILL BE OFFERED FOR  
APPEARANCE RELATED CLAIMS ONCE  
THE PRODUCT IS INSTALLED.**

## Installer / Owner Responsibility

Engineered floors are a natural product and as such are subject to many variances in both colour and character, this is to be expected at all times. In order to establish a consistency of product a grading and manufacturing tolerance of 5% has been set to allow for de-selection of material if deemed unsuitable for the installation. A 5% cutting or waste allowance must therefore be added to the net square meters required for the site to be installed. This product is produced with a manufacturing tolerance of + or - 1.5% on the dimensions of the board, this should be considered on installation and where product is out of tolerance that section dismissed as part of the cutting and waste allowance.

The installer or owner assumes all responsibility for final inspection of the product quality prior to installation. The installer or owner must determine that the job site environment and the sub-surfaces involved meet or exceed all requirements within these instructions; claims will not be accepted if a fault was visibly noticeable or preventable prior to installation. These conditions are noted further within.

- 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 nominated party "consumer or installer" that takes ownership 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.
- Engineered floors must not be installed below ground level or in bathrooms.
- 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 and in order to accurately determine acclimatisation. These measurements "will be" required by the manufacturer or supplier if there are any future problems.

## Acclimatising & On-Going Environment Conditions

*AS PART OF THE WARRANTY CONDITIONS OF YOUR ENGINEERED FLOOR IT IS ESSENTIAL TO ACCLIMATE THE PRODUCT PRIOR TO INSTALLATION FOR TEMPERATURE ONLY*

The aim of acclimatising wood flooring is to allow the temperature of the timber to adjust to the normal expected day to day conditions within the building once it is occupied.

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 engineered flooring. A room temperature of between 18 -20°C and relative humidity of between 45-65% must be maintained.

In winter, especially when the temperature is 0°C or below, and the air is dry outside, we recommend the use of a humidifier to stabilize site conditions if the site readings are showing below 45% humidity. Screed / concrete subfloors must be under 4% moisture content using Tramex / Other non-destructive moisture meter (2.5% CM Test / Din Standard).

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

**Failure to do this could cause on-going behavioural problems with the floor and will invalidate the warranty.**

All wet work must have been completed otherwise the moisture will transfer from walls floors and ceilings to the hardwood flooring. The delivered flooring must be left in the packaging with polythene wrapping intact. 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. The use of gas or paraffin heaters should be

avoided. Do not store next to radiators. The flooring must be left in situ, for 3-7 days before installation. Further checks must be undertaken by the installer to confirm the wood flooring is in equilibrium with the site it to be installed.

You can expect your Engineered flooring to be supplied at 8 % +/- moisture content at the point of delivery. The correct moisture content for installation within the UK & ROI climate is 10% +/-; this is why acclimatisation is required. Testing must be carried to ensure the product is within this window. If the product has moved beyond 12% action should be taken to reduce the moisture / humidity readings within the area / product. A reputable installer will have testing equipment such as "Tramex" to check relative humidity and the moisture content of the subfloor / wood.

## New build and renovation projects

A new installation site needs to dry out before wood 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, delaminating, expanding and later contraction. Always protect against excessive moisture ingress, 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 ingress 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.

***If the subfloor is between 4% Mc and 6.5% Mc then ELKA 2 part Epoxy DPM must be applied to the subfloor and if bonded direct the flooring secured with a flexible adhesive such as trade / trowel flex.***

## Sub base:

When fitting to a sub base other than battens (Screed, ply, chipboard) the sub base must conform to BS 8204: Part 1 1987, which states that it must not deviate by more than + or - 3mm under a 3m straight edge in any one direction.

Wooden sub structures must be sound and securely fixed. They must be a minimum of 18mm in depth in order to be supportive. (This applies to Ply or Chipboard also)

Always show a preference for Ply to be used as opposed to Chipboard. Ply will offer a better nail fix, there is a good possibility that the nail will work free from Chipboard. Furthermore Chipboard when damp will become less resilient if moisture is introduced. Screed / Concrete subfloors must be under 4% moisture content using Tramex / Other non destructive moisture meter (2.5% CM test / Din Standard), above this will cause excessive dimensional change in the wood flooring resulting in problems such as cupping / delaminating not covered by the guarantee.

## 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 which will leave slight gaps between each plank. In the summer months when the humidity is higher the wood will expand and the gaps will disappear. 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. **No fixed objects are to be installed on the flooring – there is no exception!**

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.

### **Under-floor heating: Embedded Systems Only**

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 2.5% 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 **MUST** 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) **MUST NOT 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.
10. Do not cover the floor with rugs when the UFH heating is operating

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 2mm foam or poly type underlay is not necessary. However, if a 1.5mm cork or bitumen type acoustic barrier is used, then 2mm foam in particular is recommended to install over same. The underlay stops "grinding" between wood and subfloor. 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.

### **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 flooring and underlay to fit under it.
3. Open a number of packs and "shuffle" the 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. Unilin Distribution or its dealers will not be responsible for costs associated with installing, finishing and/or replacing 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 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.
11. All perimeter gaps should be covered with skirting or Scotia using cover strips at thresholds.

### **Installation**

There are 3 methods to install your Engineered Flooring:

#### **Nailing on to Wooden Sub-Floor:**

- Before you start make sure the subfloor is in good shape. Bouncy, squeaky or uneven areas must be repaired. Note 18mm plywood, solid wood or battens hold 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 plywood so that the direction can be changed. The floor will be stiffer and less prone to joints separating if plywood is used.
- Always test humidity in crawl space, ensure no air bricks are blocked and cover the floor boards with tar saturated craft paper prior to nailing.
- Securing can be done by using a porta-nailer or other form of secret nailing with nail lengths to be suitable for the specific thickness of engineered flooring. 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 150 - 200mm intervals.
- Even small panels must be secured in a minimum 2 locations.

Note: Use only a flooring nailer that engages the top profile over the tongue at the appropriate angle. We also suggest the use of adaptors to prevent damage to the edges.

#### **Gluing on to Wooden or Concrete Sub-Floor:**

- You must use a water-free, MS, alcohol 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.
- Concrete / screed floors should be primed with ELKA Polyurethane Primer "only" – other primers such as PVA should never be used.
- 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.

#### **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.

#### **Wood floor care guide:**

Wood floors are a lifetime investment, and decisions concerning them should not be taken lightly. Routine maintenance should include protecting the surface finish from moisture and heavy wear which creates scratches.

#### **Consumer Expectations:**

Wood floors are NOT impervious to the day to day impact of grit, food, spills, and water. Preventive maintenance like area rugs, floor protectors (on ALL furniture on your wood floors), and routine maintenance with proper hardwood floor cleaner should always be exercised (improper products can contribute to additional wear, may VOID your warranty, and cause failure when recoating).

#### **Good practice:**

Keep this as a regularly scheduled event. Always perform this process before and after a major event that involves a high volume of traffic on the floor.

- Do: Place Protector pads on ALL furniture legs resting on your wood floor.
- Do: In high traffic areas use added protection to prolong the surface life of your floor.
- Do: Place walk off mats and area rugs in high traffic areas (make sure they stay dry and are cleaned underneath on a regular basis).
- Do: Perform routine maintenance; this should include sweeping, vacuuming and/or dust mopping to remove dirt and grit.
- Do not: Wear high heel shoes as this will cause indentations in the wood, keep your pets nails trimmed on a regular bases.
- Do not: Use WET or STEAM mops.
- Do not: Use ammonia.
- Do not: Use dust cleaning substances.
- Do not: Track dirt over the surface of the floor, clean immediately.
- Do not: Use other general floor cleaning products, only specialised Elka cleaning products should be considered.
- Do not: Wax a urethane or oiled finish.

# Checklist of Critical Guidelines

The following checklist must be completed before the Installation of wood floor products.

The information on the checklist MUST be followed in every way. If any of these requirements are NOT completed, you WILL be jeopardizing your wood floor performance and/or warranties and guarantees.

Allowing any items to be over looked, could cause the installation to fail in the short or long term. Once this information is secured, a signed copy should be kept in a safe place in case future concerns arise.

PRE-INSTALLATION EVALUATION OF JOB SITE:	
Date	Time
Job Name	
Address	
City	
Postcode	
Telephone	

**UNTIL THE FOLLOWING GUIDELINES HAVE BEEN MET, THE JOBSITE IS NOT READY FOR WOOD FLOOR INSTALLATION!**

### EXTERIOR CONDITIONS:

1 GUTTERS AND DOWN PIPES ARE PROPERLY PLACED TO DRAIN WATER AWAY FROM STRUCTURE:

YES / NO

2 SOIL SURROUNDING THE STRUCTURE IS PROPERLY GRADED TO DRAIN WATER AWAY FROM THE STRUCTURE:

YES / NO

### INTERIOR CONDITIONS:

1 ALL WET TRADES (TILE, PAINT, PLASTER, ETC.) HAVE COMPLETED WORK ON SITE:

YES / NO

2 HVAC (HEAT VENTILATION, AIR CONDITIONING) ARE IN PLACE AND OPERATING PROPERLY: (3-5 days prior to delivery of wood floor products)

YES / NO

3 THE BUILDING IS ENCLOSED; WEATHER TIGHT, INCLUDING DOORS AND WINDOWS:

YES / NO

4 THE TEMPERATURE AND RELATIVE HUMIDITY WITHIN THE STRUCTURE ARE AT "NORMAL LIVING CONDITIONS" (TEMP- BETWEEN 18 -20°C AND RELATIVE HUMIDITY BETWEEN 45 – 65%)

YES / NO

### CONCRETE SLAB CONDITIONS

1 DPM HAS BEEN INSTALLED UNDER THE SLAB:

YES / NO

2 CONCRETE HAS A MOISTURE CONTENT OF UNDER 4% IMPEDIANCE (2.5% CM Test / Din Standard):

YES / NO

3 IF WOOD FLOOR IS TO BE INSTALLED OVER SLAB, IT IS FLAT AND TO SPECIFICATIONS:

YES / NO

IF APPLICABLE ALL AIRBRICKS CLEAR FROM OBSTRUCTION

YES / NO

IF APPLICABLE TAR SATURATED CRAFT PAPER INSTALLED OVER FLOORS WITH A CRAWL SPACE BELOW

YES / NO

### DELIVERY AND WORKING CONDITIONS:

1 DRIVEWAY AND SIDE WALKS ARE INSTALLED:

YES / NO

2 THE FLOORING WILL NOT BE INSTALLED BELOW GROUND LEVEL:

YES / NO

### MOISTURE CONDITIONS

1 MOISTURE CONTENT OF THE WOOD SUBFLOOR IS NO MORE THAN 2 PERCENTAGE POINTS ABOVE OR BELOW THE FINISH FLOORING AND IS WITHIN REGIONAL MOISTURE CONTENT GUIDELINES.

YES / NO

2 MOISTURE TESTING OF CONCRETE BEGAN NO SOONER THAN 30 DAYS AFTER THE SLAB WAS POURED. TEST RESULTS (BELOW 4%) INDICATED THAT IT IS SAFE FOR WOOD FLOORING INSTALLATION TO BEGIN, AND ALL READINGS HAVE BEEN DOCUMENTED:

YES / NO

WHAT TYPE OF TESTING EQUIPMENT WAS USED? MAKE & MODEL
RESULTS / READINGS:  Subfloor % Mc  Temperature  Relative Humidity
Installer  Company  Tel:

I verify jobsite is ready for wood flooring installation
Signed
Date

**FOR YOUR OWN BENEFIT IT IS VERY IMPORTANT THESE GUIDELINES ARE MET, AND FOLLOWED TO THE LETTER. IF NOT, SOME ONE [BUILDER, OWNER, WOOD FLOOR CONTRACTOR, or ALL] NEEDS TO SIGN OFF THAT THESE ITEMS HAVE NOT BEEN FOLLOWED.**

**THAT PERSON COULD ULTIMATELY TAKE SOME, IF NOT ALL, RESPONSIBILITY**