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| **The Solid Wood flooring Company** |
| **Product Details (this text is unique to each project)****to residential units at ………….** |
| **K21 Wood strip / board / board fine flooring / linings** |
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| **MR** |
| **Date** |



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| NBS Specification for E212 (15) Left & Right handed- 120mm x 600mm x 15mm engineered wood flooring, to be fitted fully bonded using SW890 adhesive in accordance with BS8201:1987 to a Danskin acoustic floor (with a chipboard top layer), over an under floor heating system.  |

**K21 Wood strip / board / board fine flooring / linings**

To be read with Preliminaries/General conditions.

**TYPES OF FLOORING**

 WOOD FLOORING TO RESIDENTIAL UNITS:

**E212 Engineered Parquet Herringbone wood flooring for South Bank Towers London**

***Substrate:*** Concrete base to BS EN 206-1

CMS Danskin Acoustic floor saddle system with Smartspan overlay. Gypsum based fibre reinforced calcium sulphate substrate tested to EN 13213 for interior use to BS5669:1979

Floor build up to be as per KPF\_SBT floor build-ups 10\_2910.04.14 section 1c.Engineered Timber

12mm Ply overlay to be installed over the 18mm P5 dense structural T & G moisture resistant, oil impregnated chipboard.

Preparation: Clean, dry substrate with a moisture content of less than 2%. The substrate needs to be firmly secured, Smooth, even, and free from abrupt changes in level. The surface regularity when checked with a 3 m straightedge with 3 mm feet at each end, placed anywhere on the surface, will achieve SR2 to BS8204 and have no gap greater than 6 mm, and straightedge will not be obstructed by the substrate.

The CMS Danskin Saddle System uses resilient saddles, packers, optional elevating blocks and strength graded timber support bearers to provide an easily levelled under structure for supporting chipboard, plywood or hardwood flooring.

Refer to CMS Danskin for their NBS Specification for installing this substrate.

 Plywood: Marine Grade (WBP) plywood to BS1088. The plywood needs to be securely adhered to the T & G chipboard substrate, adhesive such as SW890 can be used to fully bond the plywood to the chipboard using a 6mm notched trowel to create a solid bed of adhesive.

Before installing the E212 (15) wood flooring the adhesive must be allowed to dry for 48 hours, the surface of the plywood needs to be flat and dry with a moisture content balanced to the moisture content of the wood flooring (between 6% and 9%).

***Wood boards:*** Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/ grade specified).

Manufacturer: The Solid Wood Flooring Company - Tel: 01666 504015 / mobile: 07831680 206 / Email: info@thesolidwoodflooringcompany.com.

 Product reference: E212 (15) Engineered deep fumed and enviro raw timber finish

 Species: Oak FSC 100%

 Appearance: Class/ Grade: To BS EN 942, Mixed Grade with sound knots up to 50mm permitted

 Board size: 15mm thick x 120mm wide x 600mm long with a 4mm solid oak top layer of cut veneer specifically designed for use with under floor heating. 10 pieces Left and 10 pieces right handed per carton for herringbone pattern with 1.44 m2 per carton

 Edges: Long edges square tongued & grooved, Ends square tongued & grooved.

 Finish: Factory finished with Timberex Enviro Raw Timber finish

1: 4mm cut veneer deep fumed in a fuming chamber prior to adhering to

 The backing

2: Fumed cut veneer adhered to multi ply backing with Dynea wood

 adhesives designed for use with under floor heating

3: Manufactured boards cured and kiln dried to balance the moisture content

 of all components

 4: One coat of Timberex Enviro Raw Timber oil

 5: Light sand

 6: One coat of Timberex Enviro Raw Timber oil

7: One coat of Timberex Raw Enviro Timber oil

Completion of Works: As this is an oiled board, after all works are completed and before hand over to the client (ALL other trades will have finished) the floor should be vacuumed, cleaned with Bio C neutral PH cleaner and then a coat of Enviro Maintenance Oil applied in accordance with the manufacturer’s instructions

***Performance:***

 Load bearing: Conform to BS 6399-1: 1966 table 1 section 3

 Reaction to fire: Perform to EN 13501-1 Dn s1

 Slip Resistance: Tested to BS 7967-2: 2002 (Pendulum Test) and achieve LOW Slip risk in the DRY and MODERATE risk in the WET

 Thermal Conductivity: EN ISO 10456 and EN ISO 12664 Result 0.15 W/(mk)

***Storage:*** The wood flooring boards are to be stored in conditions where no moisture can attack them.

It is important that all wet trades have been completed before any boards are received on site.

Storage conditions should have a Relative Humidity of between 35% and 55% and Relative Humidity of less than 75%

***Acclimatisation:*** The boards will not require acclimatisation.

Where the boards are to be fitted over under floor heating, the boards must be acclimatised for 7 to 10 days before they are fitted, In the same conditions that they will experience in use.

The cartons must be stacked a minimum of 50mm off any floor, and a minimum of 500mm from any wall. The cartons must be fully supported along there lengths, and the ends of the cartons should be opened to assist acclimatisation.

The relative humidity above the substrate when tested with a hygrometer to BS 8201:2011, Appendix A - must be a maximum of 75%, and the substrate where the boards are stored will have a moisture content of less than 2%.

***Laying:*** Floor to be laid fully bonded and to be fitted in accordance with BS 8201:2011 Code of Practice for Flooring of Timber, Timber Products and wood based panel products. **We always recommend this method where possible**

 Moisture: Moisture content at the time of laying to be 6-8%.

 Pattern: As laid.

 Adhesive: SW 890 - The SW890 Wood Floor Adhesive is elastic; according to EN 14293 (soft); 1-component Silane based adhesive for parquet.

 Method of finishing: Prefinished boards with builders clean.

Bonding: The engineered boards are to be fully bonded direct to the substrate with SW890 adhesive using a 6mm notched trowel to ensure that a full solid bed of adhesive is present under each board.

Any adhesive that finds its way onto the surface of the boards should be allowed to dry but not harden then it can be easily removed without damaging the surface of the boards.

 Fitter: The wood flooring fitter will be responsible for ensuring that the site conditions comply with BS8201:2011.

The wood flooring fitter is responsible for using the wood boards to create a finished floor that complies fully with the architects/contractors instructions in accordance with BS8201:2011

The wood flooring fitter must ensure that the contractor understands what the finished floor will look like before starting fitting.

The wood flooring fitter is responsible for checking that every board is of the desired quality and suitable for use before, during and after fitting and if there is any doubt, boards should not be fitted.

***Other requirements***: *RELATIVE HUMIDITY* - The relative humidity above the substrate when tested with a hygrometer to BS 8201:2011, Appendix A - must be a maximum of 75%.

Expansion: *PERIMETER* – A 10mm expansion gap is required around the perimeter of the floor and/or where the wood flooring meets differing materials.

*LONG ROOMS* - Should the floor dimensions exceed 8 linear metres in any one direction, then extra provision should be made for expansion and expansion gaps of up to 8mm should be designed into the floor.

*DAY WORK JOINTS* - Day work joints are not appropriate in this instance, but can be bridged if necessary

*CONSTRUCTION JOINTS* - Any construction joints that run across the floor must not be bridged and expansion joints should be installed at these points and designed to follow the line of the construction joint.

Aesthetics: It is the art of the fitter to ensure that fitting is conducted to achieve an acceptable blend of shade variation, colour and knotting which are all inherent characteristics of any natural wood product

 DPM: As designed into the floor

***PROTECTION***

Protective covering: Submit proposals - Remove at completion

NEVER cover the floor with any impervious materials which could cause the boards to sweat and affect the structure of the boards

NEVER create potential ‘Hot Spot’s’ by placing any thick or rubber backed rug’s on the finished floor which could cause a heat build up and damage the structure of the boards.

If the finished floors are to be protected from other trades care should be taken by the main contractor to ensure that the boards are not damaged by any covering or by any of the trades.

If the floor is to be covered – the under floor heating should not be run whilst any covering is in place and the covering should not be impervious.

If a covering is to be used then a 2 – 3mm thick felt should be placed over the floor with a 3mm thick hardboard above that and the joints taped to stop any ingress of possible contamination. **DO NOT USE ANY OTHER FORM OF COVERING**

***UNDER FLOOR HEATING***

Acclimatisation Before fitting Engineered wood flooring will require 7 to 10 days to acclimatise to the same conditions that they will experience in use.

Storage The cartons of wood should not be received onto site until all wet trades have been completed

 The cartons should then be stored in the same conditions that they will experience in use as described in BS8201:2011

 The cartons of wood should be stored at least 50mm off the ground and supported along their whole length either on pallets or battens and the cartons should be no nearer than 500mm to any wall

 The ends of the cartons should be opened to allow the air to penetrate into the boards

Before fitting The under floor heating system should be fully commissioned and fully operational with all components in place before any fitting commences

 The under floor heating system should be switched off at least 48 hours before any fitting commences

During Fitting The under floor heating should remain off whilst the wood flooring is being fitted

 No other trades should be allowed in the vicinity of the floor during this time

After fitting Once all fitting has been completed the floor should be left for 24 hours before it is walked on

Heat introduction The heating should not be switched on until 72 hours after fitting has been completed

 The under floor heating should then be switch on at it’s lowest heat probably approximately 18⁰C at finished floor level and the heat should then be gradually increased by 1⁰C every 24 hours and **THE HEAT SHOULD NEVER EXCEED 27⁰C AT FINISHED FLOOR LEVEL**

It is recommended that monitoring devices are designed into the floor to ensure that the temperature is controlled at finished floor level.

***OTHER REQUIREMENTS***

EUTR Any timber products placed on the European market must comply with the EUTR Regulations which came into force on March 3rd 2013.

It is now an offence to place any illegally logged timber products onto the European market.

The Solid Wood Flooring Company operate a Responsible Purchasing Policy and conduct due diligence on its supply chain and will always supply timber products that have been legally logged.

The Solid Wood Flooring Company are FSC certified, members of the Timber Trade Federation and operate a Responsible Purchasing Policy, which is independently audited to ensure that they conform to the Timber Trade Federation requirements.

***RESPONSIBILITIES***

 Specifier: The specifier should ensure that the wood floor specified is suitable for use.

 Manufacturer: The manufacturer will take responsibility for the performance of the boards provided that they were received on site in good condition, stored in the correct manner and have been fitted in accordance with BS8201:2011

 Contractor: The contractor will be responsible for the ensuring that the wood boards are not received on site until all conditions are correct within the guidelines of BS8201:2011

The contractor will be responsible for making sure the boards are kept safe on site.

The contractor is responsible for the correct laying of the boards.

The contractor is responsible for ensuring that the finished floor is correctly protected in between the completion of the fitting and the handover to the client.

 Fitter: The wood flooring fitter will be responsible for ensuring that the site conditions comply with BS8201:2011.

The wood flooring fitter is responsible for using the wood boards to create a finished floor that complies fully with the architects/contractors instructions in accordance with BS8201:2011.

The wood flooring fitter must ensure that the contractor understands what the finished floor will look like before starting fitting.

The wood flooring fitter is responsible for checking that every board is of the desired quality and suitable for use before, during and after fitting and if there is any doubt, boards should not be fitted.

Fitters/Builders clean On completion of fitting the surface of the boards should be vacuumed to remove any particles of wood or sawdust.

The fitter should ensure that no residues from any of the fitting remains attached to the surface of the boards.

The fitter should clean the boards with the recommended cleaner and ensure that the contractor and client (if appropriate) understand how the wood flooring should be cleaned and maintained.

The contractor should request an Operations and Maintenance manual from The Solid Wood Flooring Company to give to the client to ensure that they know how to clean and maintain the wood floor.

Covering the floor **NEVER** cover the floor with any impervious materials which could cause the boards to sweat and affect the structure of the boards. This includes dense rugs, rubber backed mats and bean bags which can produce hot spots on the floor.