

# Legno Medium

Solid wood tongue-and-groove elements for internal flooring, chamfer on 4 sides. Timber type Slavonian Oak (*Quercus Robur*), grade "Δ". Dimensions 50x400x10 mm. Pre-sanded, unfinished surface, hand-worked texture. Absorbent, requires finishing treatment after installation using Microresina® Legno+Color® or LegnoNat to give a continuous surface Legno+Color® Medium or LegnoNat Medium, with Kerakoll® 3 coat technology (K3S). Eco-friendly, safeguards the environment and the health of operators, ideal for use in GreenBuilding.



Laying method: glued.



The mark of responsible forestry  
FSC® C122400



## PRODUCT STRENGTHS

- Eco-sustainable, certified FSC® 100%, compliant with regulation EUTR no. 995/2010 (Timber regulation)
- Slavonian Oak (*Quercus Robur*) a top quality raw material that is strong, hard and flexible
- Stable thanks to the fact that it is seasoned twice, in drying cells and in storage (12 months)
- Small sizes to rediscover laying geometries even in limited spaces
- Hand-crafted texture on every single plank

## CHARACTERISTICS

### Nominal dimensions of elements

fixed width	50 mm
fixed length	400 mm
total thickness	10 mm

Pack of 55 strips = 1.10 m<sup>2</sup>

### Structure

Slavonian Oak timber type (*Quercus Robur*, broad leaved) throughout, for an extremely hard wearing floor, top quality natural raw material, grown in the European continental area. Single strip visible surface, underside grooved to encourage fixing to the adhesive. Tongue-and-groove are integrated and formed on all four sides, 2 tongue and 2 groove; all the edges of the sides have a chamfer 0.3 mm in width with an angle of 45°.

### Texture and finish

The visible side of individual elements is pre-sanded unfinished wood textured with handcrafted surface brushing and sawing. Absorbent, it requires final finishing treatment to be carried out after laying, using a cycle such as Microresina® Legno+Color® (10 colours of the Warm Collection) or LegnoNat (natural finish WR00). Assessment of any differences, such as the levelling of elements or differences/absences of machining on certain individual elements, is to be considered an essential characteristic of handcrafted solid wood products with their genuine imperfections. Bear in mind that the surface finishing might occasionally result in splinters and chips in the wood that would be felt when walking barefoot and when passing a cleaning cloth during maintenance.

### Appearance class

Light yellow-brown colour, straight, medium-large fibres with clearly defined growth rings and medulla lines. Mixed lined and flamed veining with variegations in colour that ensure the floor will have a generally natural and material appearance. Presence of knots with a maximum diameter of ≈ 10 mm on 15% of the total surface of the batch; presence of bird's eye holes, natural signs typical of the type of timber, and of small areas of brighter veining known as "ray flecks" which indicate quality and are formed when the trunk is cut radially. Presence of healthy sapwood on 15% of the total surface of the batch. The characteristics of this selection comply with the requirements of appearance class "Δ" as indicated by standard UNI EN 13226. Kerakoll philosophy supports and safeguards the environment by reducing the use of natural resources and recovering materials from forestry estates that are managed in an ethical and legal manner.

### Mechanical properties

average Brinell hardness ≈ 30 N/mm<sup>2</sup>

durability: high

stability: medium/high

weight ≈ 6.9 kg/m<sup>2</sup>

## AREAS OF USE

### Use

Flooring and paneling suitable for any type of indoor environment, in domestic and commercial applications with medium foot traffic. Also suitable for bathrooms, with the exception of the shower area. Suitable for laying on heated floors, subject to the requirements indicated in the section on substrates, the design indications provided by the heating technician and those provided by the company installing the system.

### Do not use

Outside or on substrates that are subject to moisture rising; on substrates with a residual moisture higher than the one prescribed; on substrates in direct, continuous contact with water, on fresh, uncured, non-cohesive, excessively rough and/or absorbent, cracked, fragile and deformable, dirty, powdery substrates; on textiles or resilient substrates.

\* ÉMISSION DANS L'AIR INTÉRIEUR Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

## INSTRUCTIONS FOR USE

### Substrates

The substrate on which the hardwood floor is to be fitted must guarantee the best possible adhesion for the wooden floor, and must be at the correct level, cured, solid, even, not excessively rough and absorbent, and with an adequate surface strength and resistance. The substrate must also be dimensionally stable, non-deformable, dry, free from moisture rising, without cracks, clean and free from detaching substances and dust. In general, cement-based screeds, or those based on special binders and calcium sulphate, must guarantee the performance levels and properties indicated in standard UNI 11371.

A vapour screen or barrier must be inserted before the substrate at design and construction phase to prevent transfer of residual water vapour and moisture from the underlying layers. Before laying the floor, use a calcium carbide hygrometer in the manner set down by standard UNI 10329 to check that the residual damp level falls within the maximum limits foreseen for the specific types of substrate and thicknesses:

substrate type	maximum residual humidity value
cement-based screed, maximum thickness 80 mm	≤ 2.0%
cement-based screed with under-floor heating	≤ 1.7%
anhydrite screed, maximum thickness 50 mm	≤ 0.5%
anhydrite screed with under-floor heating	≤ 0.2%

Legno Medium can also be laid on screeds made using Keracem® Eco, Keracem® Eco Pronto, Keracem® Eco Prontoplus or on synthetic substrates obtained by mixing EP21 with Quarzo 5.12.

When laying on timber based panels (regulation plywood or composite wood panels, except for chipboard) check that the humidity is compatible with that of the wooden flooring to be laid and that the panels are properly fastened to the substrate using mechanical fixing elements.

Do not lay directly on existing textile layers (carpet) or resilient layers (PVC, linoleum, etc...); this type of flooring must be removed completely, also making sure that any residual traces of old adhesives are removed by sanding.

Make sure that the hydraulic system seal test has already been carried out. In substrates containing an underfloor heating system, check that the pipes are covered by at least 30 mm of support materials and ensure that the initial start-up cycle has been carried out as foreseen by UNI EN 1264-4; a double polyethylene barrier, of suitable thickness according to UNI 11371, must be installed under the radiating panels.

### Preparation of substrates

Non-cohesive, fragile and powdery substrates must be treated with EP21 according to the indications provided on the product technical data sheet. In the presence of high residual moisture (MC max 5% CM – RH max 90%) use EP21 as a waterproofing agent, making sure that the last coat is saturated with Quarzo 5.12.

Self-levelling anhydrite and cement-based screeds must first be sanded as indicated by the manufacturer, cleaned and then treated with EP21 according to the indications provided on the product technical data sheet.

Expansion/construction/fractioning joints must be opened with an angle grinder. The edges of the joints must be treated with a damp cloth using EP21 and immediately closed with EP21 mixed with Quarzo 5.12 according to the instructions detailed in the related technical data sheet. On pre-existing substrates such as marble, granite, tiles or the like, first check that they are solid and anchored to the substrate; then perform in-depth cleaning, mechanical abrasion of the surface with a diamond disk, and finally apply the adhesion promoter Keragrip Eco Pulep; in the event of high residual moisture (MC max 5% CM – RH max 90%) apply 3CW.

To regulate uneven substrates, and to make adjustments (minimum thickness ≥ 3 mm with UNI 11371), use Wallzero®, Keralevel® Eco Ultra, Keratech® Eco R30, Keratech® Eco Flex, Floorzero® or a synthetic mortar obtained by mixing EP21 with Quarzo 5.12. Any cracks must be repaired with Kerarep.

### Laying

Legno Medium must be laid by professionals and must only be laid using the even, continuous method of gluing to the substrate indicated in standard UNI 11368. Use L34 two-components adhesives if laying and colouring must be performed quickly.

Clean the substrate carefully and make sure that all the other operations foreseen on site have been completed and that the doors and windows have been fitted; no further operation that might involve damp must be carried out after the hardwood floor has been fitted (e.g. plastering and/or painting).

Check that the room temperature is between +15 °C and +25 °C with a relative air humidity of between 45% and 60%; outside these levels the adhesive materials might be subject to alterations in drying time; optimum reference values for solid wood flooring are a temperature of +18 – 20 °C and a relative air humidity of 55% .

In the presence of an underfloor heating system this must be turned off 3 days before laying, and in any case the surface temperature of the screed, at the time of laying, must not be less than +15 °C (UNI 11371).

Keep the hardwood floor in its packaging, covered, in a dry room, protected from the weather and not in direct contact with the ground; only open the boxes when the floor is to be laid, and only as the strips are required.

When completing laying of the hardwood floor, always allow a percentage for offcuts and rejects, setting aside any elements considered for any reason unsuitable or not in compliance with the laying operation. During installation, the applicator must select, distribute and mix the material in an optimum manner, to guarantee the best possible aesthetic performance according to the laying chart required.

Lay the adhesive evenly on the substrate using a suitable toothed spreader (such as no. 4) slotting the individual pieces of floor together and pressing adequately to guarantee complete and even contact with the adhesive; if necessary tap the elements using tools coated with materials that will not damage the hardwood floor.

Ensure that no adhesive rises to the surface and avoid accidental contact with the joints, removing any excess immediately with alcohol (not to be used when laying is to be followed by the LegnoNat cycle); eliminate any hardened excess mechanically with a metal brush, taking care not to damage the surface.

Always leave a dilation gap around the edges of the individual rooms, to allow for natural movement of the wooden flooring; cover the gap with the Invisible skirting board. This procedure also applies when fitting wooden flooring adjacent to other floors and/or rigid surfaces (for example doors and windows): in this case the dilation gap must be covered using joint cover elements and/or connecting lintels.

Always respect structural joints formed in the substrate and repeat them on the laying surface; these joints are specifically inserted in the design to compensate for movements in the structures themselves.

## INSTRUCTIONS FOR USE

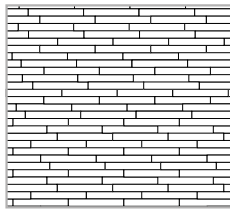
Should any defects be found during the application phase the layer must suspend installation and inform Kerakoll Spa immediately. When laying has been completed, remove any dust and solid dirt using a vacuum cleaner with a soft bristle brush suitable for hardwood floor; if necessary, protect the floor with clean sheets and/or cardboard (do not cover with plastic sheeting).

Before proceeding to finish the wooden floor with the Microresina® Legno+Color® or LegnoNat cycle, make sure that the hardwood floor has completely settled.

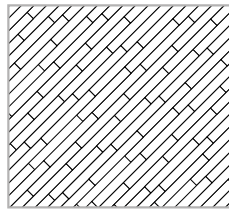
### Disposal

When laying has been completed, do not discard any product; all packing materials, waste materials and discarded and/or unused materials must be handed over to public waste disposal systems in compliance with current regulations in force.

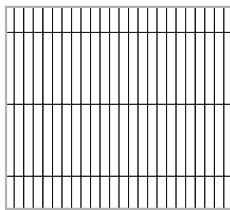
## LAYING LAYOUT DESIGNS



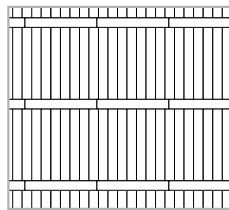
Staggered



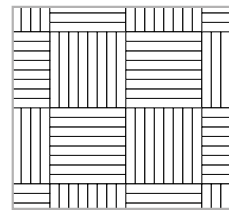
Diagonal staggered



Aligned



Aligned with border



Squares

## WORKING CONDITIONS

Wood is a living material, and because of its nature is subject to changes caused by external factors such as sunlight, damp, surrounding temperature and daily use; the phenomena described below are not to be considered as faults, but as natural behaviour intrinsic to the type of material.

The colour of unfinished hardwood floor or hardwood floor with transparent finishing changes based on how it is exposed to air and light, causing a darkening of the natural colour over time. This phenomenon can be avoided by fitting the windows with U.V. filter film or curtains.

As this is wood the surface of which is subjected to polishing, sawing and shaving operations, any slight differences (e.g. in level between elements, differences or absence of machining on certain individual strips) should not be seen as a fault, but merely as a sign of value and an essential feature of craftsmanship and the genuine imperfections it entails; these machining operations might cause slight differences in surface level that would be perceived when walking barefoot, as well as occasional light splintering and/or chipping of the wood.

Maintain the ambient climate at a temperature ranging between +15 °C and +25 °C and with relative air humidity ranging between 45% and 60%; such thermal and humidity conditions shall be maintained over time to ensure that the hardwood floor characteristics at the time of installation remain unchanged, through the use of suitable humidification or dehumidification systems.

Maintain the working temperature of the underfloor heating system so that the surface temperature of the floor is lower than +27 °C.

The type of wood used is sufficiently hard to guarantee the performance required; however in spite of this, avoid impact or falling objects as well as the concentration of loads on small areas (e.g. ladders, stiletto heels, stones stuck in the soles of shoes, passage of pets, etc.).

Protect the feet of chairs, sofas and armchairs using suitable felt pads. Provide suitable clean door mats at the entrance to rooms with wooden floors, upon which to clean your shoes.

Falling sparks or the propagation of flames will cause burns on the floor.

The time between cleaning and maintenance operations, both ordinary and extraordinary, on Legno Kerakoll wood finished with Microresina® Legno+Color® or LegnoNat or other finishes of the Kerakoll line will depend on the intensity and manner in which the finished floor is used; for more information refer to the related technical data sheets.

## SPECIAL NOTES

Use Kerakoll substrate preparation coats, consolidating/waterproofing agents and adhesives as indicated in the respective product technical sheets.

The photographic images in the Kerakoll Design House catalogue and on the [www.kerakolldesignhouse.com](http://www.kerakolldesignhouse.com) site as well as the colour chart samples provided are for general indication only.

The Kerakoll Design House surfaces in different materials have different tone, saturation, and lightness. Use material from a single production batch for each project.

Materials coming from different batches may have variations in tonality and colour.

The surface Texture of Kerakoll Design House is characterised by marbling, discontinuous material vibrations, and natural irregularities resulting from handmade craftsmanship that is carried out during implementation.

## ABSTRACT

*Hardwood floors and/or wainscoting for internal applications such as Legno Medium by Kerakoll Spa, in single strip solid wood elements measuring 50x400x10 mm made from Slavonian Oak (Quercus Robur) with integrated tongue-and-groove made on 4 sides of every single element.*

*Elements have all their side edges marked by a 0.3 mm deep, 45° angle chamfer, a pre-sanded, unfinished exposed surface complying with aesthetic class "Δ" according to UNI EN 13226 standard, and surface textured with handcrafted brushing and sawing operations.*

*Technical characteristics in compliance with the requirements for CE Marking under standard UNI EN 14342 (September 2013):*

- Reaction to fire (EN 13501) :  $C_{fl-s1}$
- Formaldehyde emission (EN 13986 / EN 717): class E1
- Flexural strength: NPD
- Slipperiness: NPD
- Thermal conductivity: 0.17 W/(m K)
- Biological durability: Class 2

*Grown in the European continental area, certified FSC® 100% and for which Kerakoll Spa implements the provisions envisaged by regulation No. 995/2010 EUTR through an adequate DDS system. Tested as class A+ for VOC emissions (CSTB method).*

*Hygroscopic stabilisation carried out in drying and storage cells, humidity content of 7 – 11%.*

*To be fitted by means of even and continuous gluing using suitable Kerakoll adhesives. Pre-sanded unfinished surface, absorbent, needing final finishing treatment to be carried out on site such as Microresina® Legno+Color® or LegnoNat cycle by Kerakoll to obtain a Legno+Color® Medium or LegnoNat Medium continuous surface with Kerakoll 3-layer technology (K3S), with fire reaction class  $C_{fl} S1$  according to standard EN 13501.*

## WARNING

### - Product for professional use

- abide by any standards and national regulations
- during storage, installation and use of the flooring, maintain a constant working temperature in the room of between +15 °C and +25 °C and an air humidity of between 45% and 60%; consider as optimum reference values for solid wood flooring a temperature of +18 – 20 °C and an air humidity of 55%
- keep the hardwood floor in its packaging, covered, in a dry room, protected from the weather and not in direct contact with the ground; only open the boxes when the floor is to be laid, and only as the strips are required
- prolonged exposure to direct sunlight may cause fading/darkening of the unfinished flooring. The finish should be applied within a few days or it should be covered completely and evenly with suitable materials
- avoid concentrating loads on small areas (e.g. ladders, stiletto heels, little stones)
- in spite of careful quality control, some elements might show characteristics unlike those of the appearance class indicated, as wood is a natural material
- when finished with LegnoNat and prolonged exposure to sunlight, areas covered by home furnishing components (carpets, furniture etc.)
- the samples displayed at our dealerships and the photographs provided are only to be understood as general examples of appearance, and are not binding. Floors made from the same type of timber will have more or less obvious natural differences in fibre and colour, particularly once they are exposed to light and air (oxidation process)
- if any faults appear during application the laying specialist must suspend installation and inform Kerakoll SpA immediately, penalty the loss of all rights; Kerakoll SpA's obligations will not extend beyond the collection and replacement of material acknowledged to be faulty. Testing of the material must take place at the time of delivery, any complaints must be raised within 8 days of receipt of the material, sent to Kerakoll SpA by registered mail with receipt, and in any case not later than the start of laying operations of the material deemed improper
- the product is an item according to the definitions of the EC Regulation No. 1907/2006 and therefore does not require a Safety Data Sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - [globalservice@kerakoll.com](mailto:globalservice@kerakoll.com)

The Rating classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in July 2019 (ref. GBR Data Report - 07.19); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see [www.kerakoll.com](http://www.kerakoll.com). KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.



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