

GENERAL INFORMATION - WOOD, A LIVING MATERIAL

Wood is a “living” material interacting with the environment and affected by external factors such as sunlight, temperature, air moisture and daily use.

COLOUR

The colour of wood largely depends on certain substances it contains, known as **extractives**.

The colour of these substances changes with exposure to air and light, so that the original colour of every parquet floor undergoes more or less marked transformations over time.

Due to the high extractives content in tropical wood species, such as **Iroko and Doussié**, they are especially prone to chromatic changes usually evolving into darker brown hues, sometime creating different colour tones.

Teak may initially show very conspicuous colour variations. These variations tend to diminish and disappear over time and the colour turns a consistent medium-light hue.

Oak features a fair colour stability. With exposure to light, it evolves into warmer colour, more golden hues, increasing the yellow component. The overall tone, including the areas featuring silver figures, will become substantially more uniform.

This evolution into warmer colours occurs even in pigment finished products (i.e. Michelangelo and Grisaglie range).

Monteriggioni and Montesiepi initially show marked colour variations (contrasts).

Over time, their appearance will tend to homogenize towards a more neutral and lighter gray tone. This evolution happens even without light and air exposure and it's due to the natural colour change of the surface treatment.

Mirantico shows colour variations (contrasts) ranging from beige to charcoal grey tones with grape pomace hues. Over time the evolution of the natural pigments creates a golden trace, particularly in the brushed areas.

Long exposure of some wood species, including the products of Michelangelo and Grisaglie ranges, to intense and direct sunlight, for instance near a French window, may cause **discolouration** (UV rays produce these effects on many materials other than wood).

In order to limit this phenomenon, we recommend the use of curtains, screen glasses with tempered film protector or special UV filtering films to be applied to the glazing.

SILVER GRAIN

Oak boards sourced from a perfectly radial section of the log feature straight grain as well as ray flecks, typical lustrous figures even called silver grain or medullary rays or silver figures.

Silver grain has always been sought after as an indicator of quality and value. In addition to the aesthetic factor due to more even grain, it also indicates better technical performance (dimensional stability, impermeability, etc.).

SAMPLES

Wood is a natural material, uneven and variegated by its very nature: every item is unique and unrepeatable.

Therefore **samples consisting of few boards can only provide a general idea of what a parquet will look like and cannot fully show the different hues, grains and unique features of each element.**

The images don't have any contractual value; they provide only an indication of specific elements of wood selection, like wood patterns, knots, silver grain, and other varied grains of a material shaped by nature.

The colour shade visualized has to be considered indicative, as it could differ sensibly from the actual one due to the device screen settings used to visualize the image.

As mentioned above, wood colour tends to change over time, due to exposure to light and air. That is why a recently installed wood floor typically features a different appearance and hue compared to a sample panel of the same product, which has been exposed to natural light for some time.

MATERIAL STORAGE

Store the boxes of hardwood flooring in indoor and dry places, protected from the rain and the snow, without puddles and with temperature between +15°C (59°F) and +30°C (86°F).

To maintain these temperature values it will be necessary to stock the parquet in heated or refrigerated storages. Don't store the hardwood floor in places with a direct effect of the sunlight (for instance open containers or warehouses with metal roof).

In any case boxes must be kept raised off the ground, for example using a pallet (the originally packed pallet, if possible).

These directions are valid also for the transportation.

Do not open the boxes before installation.

GLUE

Ecolfit® Listone Giordano® is the single component, isocyanate and solvent free, sililated polymer-based adhesive with a very low emission of volatile organic compound recommended for all the range of Listone Giordano® hardwood floors.

Do not use two-component adhesives as they can damage significantly and irreversibly the appearance of all the finishes.

For all products with natural oil-based finishes, the use of single or two-component polyurethane adhesives is forbidden.

In fact the cleaning of such adhesives must necessarily be carried out with **solvent-based products**, as our **Puliplus Listone Giordano®**, and the use of such products can **weaken natural oil-based finishes or cause localised discolouration.**

Moreover the use of solvent-based products on larger areas (e.g. for "final cleaning" after laying) causes an **impoverishment** of the finish, not always visible, and a **worsening of performance** due to the weakening of the surface protection layer.

CLIMATIC CONDITIONS

Wood naturally undergoes swelling or shrinking, depending upon the moisture and temperature conditions it is exposed to.

For a floor to always be in perfect conditions, maintain the humidity level of the atmosphere between 40% and 65%.

The air temperature has never be lower than 15°C in the coldest season and has never exceed 30°C in the hottest one: this is also the same environmental conditions recommended for ensuring people's comfort and health. These climatic conditions should be maintained during installation as well as afterwards, including when the premises are not in use. **In certain situations, especially during the winter months, it may be necessary to use air humidifying systems in order to assure compliance with the indicated conditions.**

In case of underfloor heating, in addition to the requirements for temperature and air humidity, **the floor surface temperature limit of 27°C** with system in operation should never be exceeded.

To prevent exceeding this limit, we recommend not to cover the floor with thick rugs or other materials having high thermal resistance.

In case of cooling system, condensation has never appear in every part, either of the system and of the subfloor.

Listone Giordano® products featuring **plywood support** may also be used in particularly severe conditions of temperature and humidity, i.e. with **relative air humidity down to 30%, and with floor surface temperature up to 29°C**.

Under these conditions, the product retains its integrity and functionality, however it may be subject to phenomena typically connected to wood shrinking, such as warped board section (cupping), the formation of gaps between the boards, or even the formation of cracks within the individual board.

Anyway, the appearance overtime of a few tiny cracks on the top hardwood layer is a natural phenomenon and inevitable in statistic terms even if the recommended climatic conditions are complied with.

HARDNESS

The individual hardness features of all wood species processed to manufacture the parquet products herein make them suitable for hardwood flooring.

However surface dents or marks may occur in even the hardest of woods, if the hardwood floor undergoes impacts, is hit by falling objects, or is loaded with highly concentrated weight (stileto heels, ladders, etc.).

HANDCRAFTED PROCESSING

Atelier and Natural Genius wood flooring collections feature uneven shape and appearance typical of a hand-made product. Visible differences between planks or within the same plank (i.e. uneven and/or rough surface, difference in hues) are not defects but rather represent the very essence of the products.

Some processes cause roughness and minor splintering on the surface, which the cloths used for cleaning may get caught in.

The presence of said roughness and tiny splintering must be carefully assessed if the flooring is for barefoot use.

FINISHES

The wear due to treading tends to alter the gloss and the resistance of the finish over time, especially in high-traffic areas. Correct maintenance can keep this unavoidable phenomenon under control.

A gloss alteration may be caused also by energetic and repeated rubbing, due for example to the attempt of removing a stain.

Products with natural oil finishes and all whitened varnish finishes tend to **yellow slightly**, should these products be kept in their boxes for a long time or not be exposed to light and air. This is an utterly natural and transitory phenomenon.

All it takes for the product to regain its original appearance is to expose the boards to air and direct sunlight for a short time.

In the event of exposure to indirect lighting, typical of indoors premises, the process may require a longer time.

Natural oil-based finishes have the characteristic of continuing to permeate the wood fibres even after application, while the material is still in its packaging.

Upon installation, the surface of the product may therefore appear especially "dry" in some areas.

In that case all it takes is to apply the appropriate maintenance product immediately after installation.

Wood is a natural material, therefore colour tone and absorption of the finish may vary from one board to the other, or even in the same board according to the variation of its fibre. This colour tone variation is visible even after the application of colour pigments proving the authenticity and the uniqueness of each board.

CLEANING, USE AND MAINTENANCE INSTRUCTIONS

All the information about **Cleaning, use and Maintenance** of the Listone Giordano® products are described in the **technical sheet CM 01** available in the dedicated section of the website

<https://www.listonegiordano.com/en/technical-info/>

or in the website <http://store.listonegiordano.com/en>.

We recommend checking it when selecting the product.

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