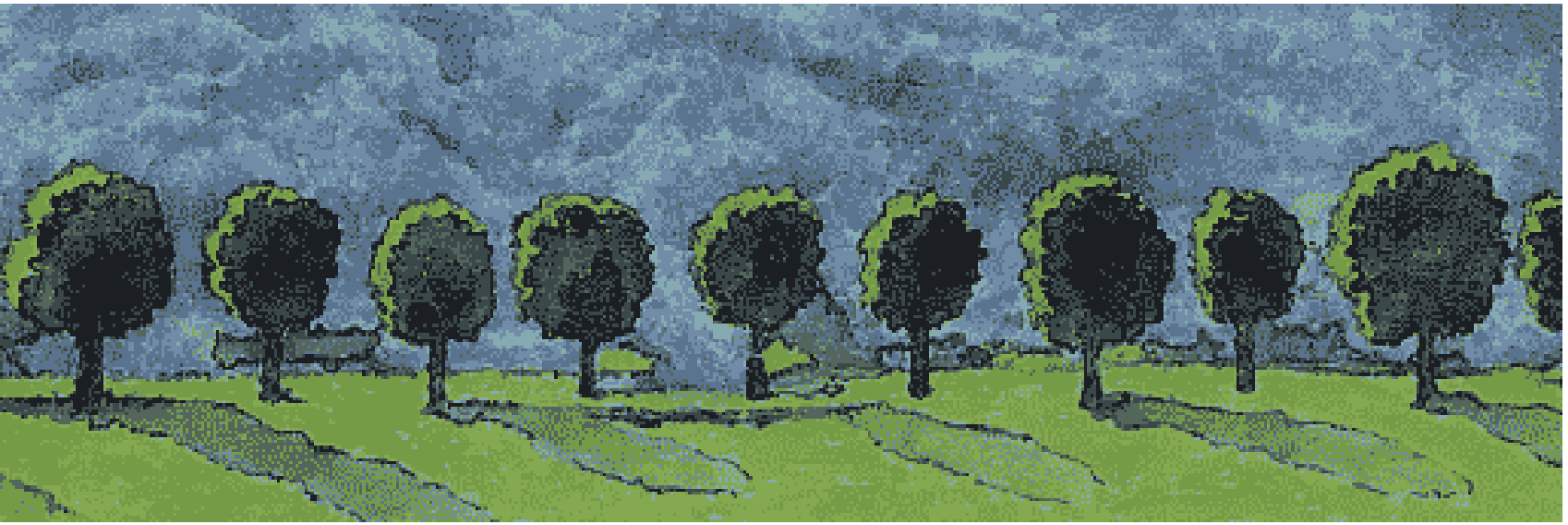


V.401

tabu

PRE-DYED VENEERS CATALOGUE

turn

INDEX

PRODUCTS

Colours and tones may vary depending on the screen used, and particularly on colour balancing, saturation, brightness

Chromatic result is indicative
Reproduction from varnished samples

For a good fidelity level with the original colours, we suggest to adjust your screen with this page

THE COMPANY

TABU has been operating in this sector since 1927, with its headquarters in Cantù (Como). The offices, plant and storage areas are scattered over a 70.000 m2 area, of which 40.000 is covered.
Parquet production is carried out in the relevant establishment at Desio (Milan).

Tabu specialises in producing natural wood veneers, through-dyed wood veneers in a huge range of colours , sliced and solid multilaminar wood in both inlaid or traditional structures, wood edgebands, floor boards and deckings .
By using Tabu products the designer can create designs using real wood whilst harmonising the colour range according to his own taste. As furniture has developed, the need for colour and shape co-ordination has emerged. Designers now have materials at their disposal which allow co-ordination of all the elements allowing them to obtain a perfect synthesis of shape, colour and space.

HOW VENEERS ARE MADE

The Americans were the first to slice wood, in about 1800, using a very primitive machine not more than 1,50 metres wide. The Frenchmen Sanson Vallette and Gardean were the next in 1870. In Italy there were the Cremona family in 1901, which with the first horizontal slicer were the originators of the veneering technique. These thin sheets allowed artisans to produce lighter, cheaper furniture which reduced substantially the amount of wood used.

Veneering consists in gluing a veneer layer onto a stable substrate (hollow-core panels, MDF, particle board, plywood etc.). This procedure has made it possible to produce goods made of wood but not subject to the warping and splitting which regularly occurs with solid wood. Furthermore, by using veneers, wood species which are not feasible as solid wood due to their wide variation in size, can now be employed, such as burrs and exotic species, both sought after and beautiful. In the mass production of furniture, veneers represent the ideal solution to the various problems such as the practicality of use, the ease of handling and above all, the limitation on consumption; one need only consider that 1 square metre of solid wood 3 cm thick is equivalent to 50 square metres of veneer. In practice, the solution veneers provide was one of the first to meet ecological needs, by reducing considerably the consumption of wood in the furniture industry. As they have been used, the “through-dyed veneers” (dyed through the whole thickness) have been developed, which offer considerable advantages to the users. They have also made possible the production of solid and veneered multilaminar wood, which solve many problems such as reducing consumption, since they are produced in fixed sizes according to the uses to which they are to be put; in addition the production of mass produced inlays and new textures for industry and

designers. It is thanks to rotary cut veneers that the production of plywood, multi-ply and moulded plywood has been made possible.
Veneers are obtained from the trunks of various wood species. These are utilised according to type which determines their ultimate use, since they are differentiated according to structure, colour, value, defects and characteristics. Broadly speaking there are three groups which can be classified:

• Logs for slicing or for rotary cutting

These are trunks which, when viewed from four quarters, are clean and straight, with no unusual forking, straight with a central core, without holes, dead or unsound knots, resin pockets, morphological defects such as mould, parasites or stains; they must be the correct colour according to the species, to a usable length of more than 2,40 m and a minimum top end diameter of 40 cm.
Sliced or rotary cut veneers are obtained from logs with these characteristics. Trunks for producing burr veneers shall have the same characteristics apart from size, as these are trunks, or parts of them, of differing sizes and structure.
Logs for slicing are also used to produce precious items such as pieces of furniture, objets d'art, etc.

• Logs for sawing

These are logs where the following characteristics are acceptable: bent logs, some holes or dead knots, stains, some morphological or colour defects according to the species. These logs are used to produce boards, in the manufacture of turned items, parquets, building boards and so on.

HOW VENEERS ARE MADE

• Logs for pulping (branches)

These are logs which exhibit gross defects in comparison to logs used for slicing or sawing. These logs are used in the manufacture of fibreboard, wood dust, cellulose, packaging and so on. Some useful parts are also used for turned goods, parquet or small wooden artefacts.

The trunks for slicing, felled in the correct season, are maintained and treated with particular care during transportation and storage before being worked, in order that they should not deteriorate. The processing begins with steaming if necessary, removal of bark and squaring off, which renders the log a suitable shape for the actual business of processing, be it slicing or rotary cutting. As regards slicing, the log, previously secured, is sliced using a running knife, whereas rotary cutting consists in peeling the trunk as it turns round a fixed knife. In this way sheets of thickness of 0,2 to 3 mm are obtained, which are put together in bundles. A certain number of these bundles make up a boule; a collection of boules makes up a “trunk”. The size and figure (striped or flame-pattern) of the sheets are determined by the wood species used, by the characteristics of the original trunk or log and by the type of processing adopted. Within a single boule or “trunk”, therefore, is a collection of measurements which vary as to length and width.

HOW VENEERS ARE MADE

Veneers are more valuable when obtained from wood species with particular characteristics, such as burrs, pommelle or fiddleback figures and others besides. Quality is determined by various factors such as rarity, structure and size.

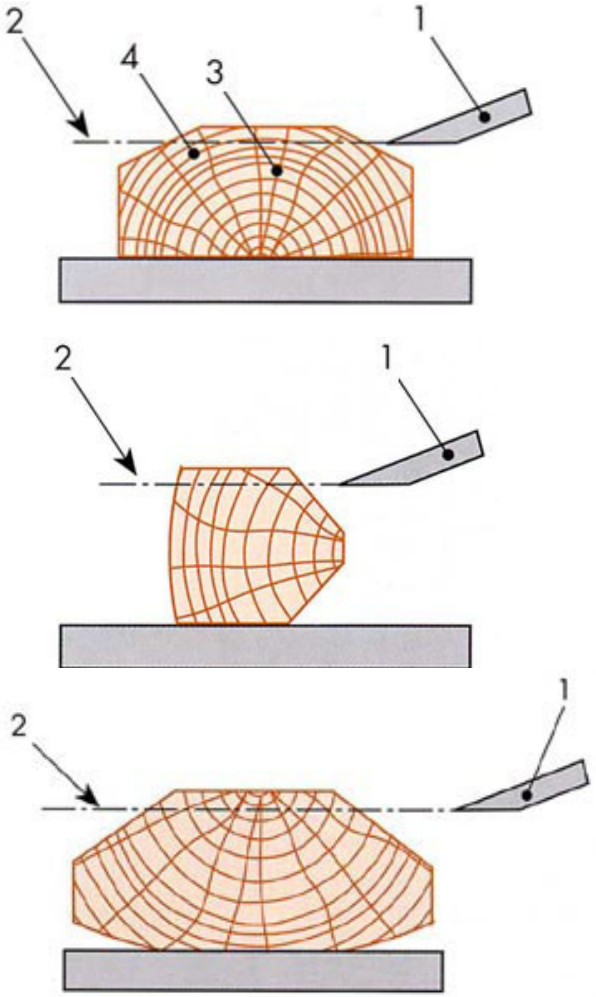
Log for slicing

Log for sawing

Branches

On the following pages some slicing/rotary cutting methods are described

SLICING METHODS



Flat slicing

1. knife
2. slicing direction
3. ray
4. growth ring

True quarter slicing, radial

1. knife
2. slicing direction

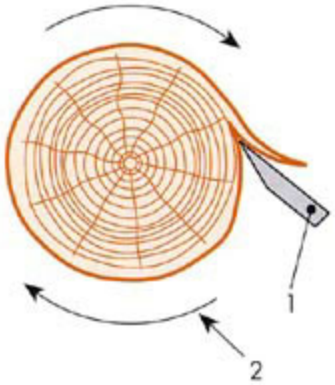
Flat quarter slicing, tangential”

1. knife
2. slicing direction

ROTARY CUTTING METHODS

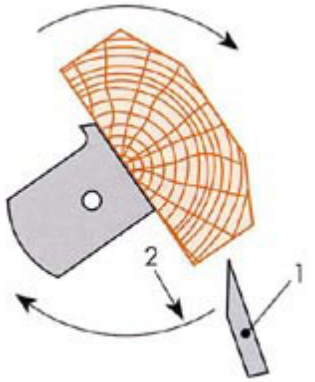
Rotary cutting

1. knife
2. direction of rotation



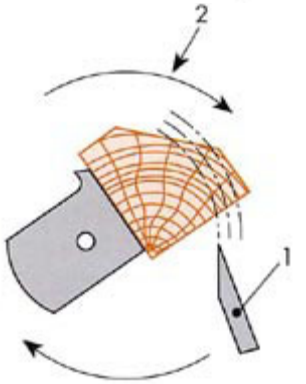
True half-rounding”

1. knife
2. direction of rotation



Eccentric quarter cutting

1. knife
2. direction of rotation



TECHNICAL RECOMMENDATIONS

Introductory remarks: the way in which any product is put to use is decisive, if the best result is to be obtained. Therefore it is advisable to follow the rules dictated by the characteristics of a natural, living product. The realisation of a manufactured article is always the result of accumulated experience, art and technology which are the personal talents of the product's craftsman. The only purpose of the following recommendations is to put at everyone's disposal the years of experience gained from working together with craftsmen and manufacturers in this field.

The choice: The choice of a natural or pre-dyed veneer is most important since it must answer the requirements of size as well as the taste (as regards species, structure and colour) of the buyer. Normally, the goods in the warehouses are in lots, consisting of "trunks", each of a different character; it is therefore necessary that the buyer chooses very carefully, either personally or through trusted agents, or else by letting the supplier have the necessary information to find the materials best suited to the requirements. At this stage it is well to remember that there are certain natural characteristics in wood which in some cases may be considered defects, but which are in fact features. That is why it is advisable that the product be seen and selected according to one's own requirements.

Characteristics: structure, splay knots, sapwood, fiddle back or mottled figure, irregular and more or less marked vein, colour variation even within

the same trunk, knots and anything else specific to the wood species in question.

Defects: (natural veneers): a catalogue of attributes of veneer which the user does not subjectively accept, are commonly referred to as “defects”. Wood is a natural product and as such its appearance in certain cases may be pleasing or displeasing. It is therefore necessary to distinguish true defects from natural characteristics. Defects include: splits, holes, mould, marks resulting from processing, slicing marks left by the cutting blade, wormholes and whatever else has occurred as an external cause to change the appearance, which is not inherent in the wood species in question.

Defects: (pre-dyed veneers): TABU’s pre-dyed veneers are nothing other than natural veneers which are dyed to the desired colour, and as such possess all the characteristics in all their effects. The defects may be considered as those occurring in natural wood. An additional defect can only be the lack of penetration of the dye, or an unacceptable colour.

Defects: (Multilaminar wood): the following should be considered as defects: cracks, processing marks, holes, mould. Non-standard in structure or colour having regard to the standard samples. (Outside predetermined margins of acceptability).

TECHNICAL RECOMMENDATIONS

Transportation: no precautions except to avoid breakage and exposure to outside weather conditions; (sharp variations of humidity); this could produce moulds, with the consequent appearance of stains on being varnished.

Pollution: the criteria are the same for Natural Wood, TABU Pre-Dyed Wood and M. W. It is advisable to avoid discharge of the wood dust (from sanding) into water-courses: this could cause damage to aquatic plant and animal life.

Health and safety: protect airways and mucous membranes from the sanding dust.

Fire precautions: wood is inflammable, but not spontaneously so.

pH: about 7 (on delivery).

Measuring veneers: (moisture content 10-12 %): the measuring process is carried out electronically therefore the squaring up takes account of the perimeter sizes. Measure out is made for any defective parts present in the veneer (holes, splits and whatever is considered a defect).

Tolerances: (TABU pre-dyed woods): in the dyeing processes, slight colour variations (8-10 %) may occur from one batch to another. This is due to the differing rate of absorption of the wood itself, which varies from log to log and from species to species. The said range is, however, in customary use.

Tolerances: (Multilaminar Wood): slight colour and structural differences (8-10 %) may occur from one batch to another; this is due to the varying behaviour of the wood during processing. The said range is, however, in customary use.

Colour control: Wood and therefore veneers tend to oxidise, which results in surface colour changes. Therefore, in order to be able to compare the colour of two veneers, whether natural, pre-dyed or M. W. (still unvarnished), it will be necessary to sand them beforehand so as to remove the external part which may have oxidised.

Density: see the product specification according to wood species and Multilaminar Wood.

Toxicity: in some wood species there are substances which may be toxic. During processing TABU pre-dyed natural woods or M.W. lose a certain part of the lymph they contain and the substances added do not exceed in quantity the margins recommended; consequently these may be considered an improvement with regard to toxic effects.

Storage: wood is liable to absorb or lose atmospheric humidity and so should be stored in conditions which are neither too dry or too moist (relative humidity about 50-60 %). Being also light-reactive, it should be kept in dark

or covered conditions. If not, defects such as warping, colour variation, breakage and delamination (in M W) may result.

The selection: before carrying out joining procedures it is advisable to cut out those parts of the veneer which are defective or exhibit some undesirable characteristic.

Moisture content: the moisture content should be close to that of the substrate to which it is to be applied (about 12 %). Wood has a tendency to swell due to its water-absorption properties; the moisture content therefore determines the size. If the relative values of the swelling of the substrate and the veneer at the moment of gluing are different, splitting or wrinkling of the veneer will result, with consequent filtration of the glue (pore-whitening). The humidity factor must therefore be closely monitored.

Clipping: during clipping, in order to achieve usable sizes for joining, it is advisable to ensure that the cutting blade is really sharp; a poor cut shows up the joins after veneering.

Joining: in this phase a “system” is selected, which may be book matching, slip matching, pleasing matching, random matching, etc. The joining process is carried out with adhesive paper, stapling with thermosetting glue points, or gluing along the veneer border. It is important to remove the residues left by

this process, in the sanding phase. Poor sanding can cause marks which appear at the varnishing stage.

The substrate: the substrate should be suitable for gluing, free from grease, or other substances, which may hinder the adhesion of the glues; dense, with a moisture content and temperature close to the veneer which is to be applied, in order to avoid cracking or delamination of the veneer itself after application. The colour of the base should be similar to the veneer which is to be applied in order to avoid one colour showing through after varnishing if it is too different.

Products for overlaying: various types of adhesives can be used according to the gluing system adopted: cold-setting gluing (vinyl or similar adhesives), thermosetting gluing (ureic resins or similar). As a rule, thermosetting ureic glues are used which by their nature tend to yellow. A high acid or alkaline content in the glues, the wood or the substrate, may produce a change of colour in the veneer immediately following the gluing phase or soon after. The cause may be attributed to a change in the pH due to varying values in the various elements, that is the substrate, the wood, the glues. The substrates, the veneers and the glues must therefore be “compatible”; the need therefore arises for research into suitable glues, which should be carried out in collaboration with the glue suppliers themselves. It is common practice to colour the glues to conceal bleeding through or pore-whitening caused by penetration of the glue itself across the wood fibre. In such a case

the colorants used should be compatible with the glue, with the colorants or acidic content of the veneer and with the varnish which is later to be applied. In short, great attention must be paid to the glues used together with close collaboration with the suppliers in order to achieve the best technical results bearing in mind production needs and the final result to be achieved.

Overlaying: the glue should be spread on the base evenly and in small quantity; it should be quite thick to avoid penetration into porous veneer causing bleeding through or pore-whitening which could become obvious at the varnishing stage. The application should be carried out quickly once the veneer has come into contact with the glue. If for other reasons the time interval should lengthen and the veneer, having been glued, begins to buckle, hindering the operations still to be carried out, it will suffice to moisten the veneer itself on the visible surface with a light spray of water; it will then regain its original flatness. Wood being a natural product, possesses differing characteristics from species to species and from log to log; the hardness, the density, the heat-conducting qualities may vary according to the moisture content and the nature of the wood fibres, which may differ from species to species. For example, birch has a different heat-conducting value from a tulip tree wood; sycamore has a finer texture than ash. At this point, at the pressing stage, the need for a whole series of adjustments emerges, which vary according to the wood species being used: pressure and compression, temperatures and pressing times, quantity of glue and cooling of the panels. In general terms, the following average values apply: press

pressure 2-4 kg/cm2, temperature 80-90 °C, pressing time 4-5'. Strong pressure applied to woods with large vessels such as ash and oak facilitates glue penetration through the veneer (pore-whitening). High temperatures used on highly heat-conducting wood causes scorching and consequent colour variation. Another important factor is the cooling of the panel after the application of the veneer. The substrates (particleboard, MDF and others) are agglomerates composed of wood and chemical products (glue). When these are exposed to heat, the evaporation of chemical product residues is facilitated, which appear on the surface and penetrate the veneer. It is therefore advisable to allow these vapours to evaporate during the cooling phase by means of free ventilation; placing anything upon the panels should therefore be avoided until they have returned to a normal temperature. These residue vapours can cause colour variation in veneers and possible deterioration of the colorants contained in them. In the case of hollow-core structure substrates it is advisable to make air-holes to relieve pressure which forms at high temperatures within the hollow-core structure itself, in order to avoid fissuring.

In the case of burrs or wavy veneers, it is advisable to flatten them before application, which involves applying pressure at 85-90 °C for about 1-2 minutes to individual sheets and then proceed with the application procedure. In applying a very light-coloured veneer, avoid the use of dark-coloured bases in case the base colour shows through the veneer, changing its colour. Here we recommend carrying out a double veneer application, setting the

fibre of each veneer at right angles to one another. It is normal to colour the glue when applying dark-colour or very porous veneers, to conceal possible bleeding through. It is advisable, in this case, to avoid dyes which, by leaching from the glue, modify the veneer colour.
At the varnishing stage, marks of a different tone may appear. In the case of light woods, use colourless glues which are thick, and apply sparsely. In veneer application a basic rule must be kept in mind, which is that two veneers must never be placed on top of one another with their grains in the same direction, even if this involves applying a veneer to ready-made plywood. Fissures could occur due to stress imbalance in the two veneers which are not balanced

Back-overlaying: to avoid bending (cupping) the substrate must be counter-balanced with a veneer having the same dimensional variability and structure as the face veneer. It is not advisable to apply directly to particle board (e.g. MDF) veneers presenting high dimensional variability on exposure to moisture (e.g. burr, crotch) since checking and delamination may occur. In this case double application is recommended.

Filling: it sometimes happens during processing that some substrate to which a layer has already been applied has small fissures or breaks caused by previous working. In such a case the defects are made good with fillers (in colours to match the woods used), which are glue or synthetic resin-based commercially available ready-made; otherwise such fillers can be made up

using oxides, kaolin and powdered colorants, mixed with fast-setting resins or glues, which are applied using a filling knife and sanded down when thoroughly dry. Where ready-made coloured fillers are not available or, in the case of TABU pre-dyed veneers whose colours are difficult to reproduce with oxides etc., a solution is to sand down a veneer of the same colour, and make up a filler with the wood dust so obtained. Insufficient drying or incompatibility between the filler's components and the varnishing products could cause marks of a different colour tone which will appear after varnishing.

Sanding: Usually it is carried out with 100/150 grain sanding paper. Finer or coarser grains will result in greater or lesser absorption of the varnishing products and, respectively, in a more or less intense colour of the veneer. Worn sanding paper can cause burn-marks on the veneer by excessive friction (sander). In this case the friction of the abrasive produces heat (burn marks) and consequent colour variation. Excessive sanding causes over-reduction of the veneer's thickness, which reveals the part of the veneer in contact with the glue, causing the undesirable phenomenon of pore-whitening or sanding through. For these reasons it is advisable to harmonise perfectly the action of the abrasive, pressure and sander speed, according to the veneer's characteristics.

Surface colouring: this is normally carried out using chromophores dissolved in water or solvent, or pigments suspended in a synthetic medium

(nitrous-based, acrylic and so on). The application is carried out manually, using air sprays or a roller dyer. Such systems have their limits since it is not possible to obtain very transparent colours, and the surface veining is consequently not emphasised; in addition it is not possible to obtain the complete colour range, as the base colour of the wood affects the final tone obtained and there is not a complete penetration of the colorants; they exclude the possibility of applying veneers of various colours on the same substrate. Such methods therefore limit a modification of the base colour and oblige one to remain, broadly speaking, within the colour range of the veneer used. In the case of colouring with water-based colorants, drying presents additional problems. If it is not carried out perfectly, it will badly affect the varnishing product that is subsequently to be used. In mass production, it is difficult to reproduce the full colour range given that colours change during the cycle of production, according to the veneer's absorption capacity, the speed of dyeing, the evaporation of the solvent in the machines and the type of sanding previously carried out; these are considerations which affect the degree of colour penetration. The system of surface colouring is therefore acceptable when a good degree of transparency or constant colour reproduction is not required, and further sanding after colour application is not called for.

Colouring of the natural veneer in the rough state: (TABU System): by this method the veneer is dyed using special technology when it is still at the rough or pre-processed stage, that is before being applied to the substrate.

The colorant therefore penetrates through the full thickness of the veneer itself whose treatment and application system, sanding and varnishing remain similar to those adopted for natural veneers.

Making-good: where there are small sanding-through areas, the defect may be remedied (so far as possible) using the following means according to the case in point: alcohol felt pens, water or solvent-based colorants, colorants in solvents and nitrous-based resin or tempera-based pencils, bearing in mind that the final tone must be checked after the application of the varnishing product and ensuring there is no incompatibility between the paint product itself and the filler material. Stains or failure to dry of the paint product applied may result.

Resistance to light: all wood species are light sensitive and change their colour on exposure to strong sources of light; it is therefore common practice to protect the wood during storage as well as the cycles of production. Veneers are normally used to manufacture products for indoor environments, not subjected to negative environmental factors (strong light, bad weather, extreme variations of temperature); besides this, no wood is ever used in its rough state but is varnished; it is therefore the layer of varnish which has to protect the wood from light and physical, chemical or mechanical agents; it must not go yellow, it must protect the wood from light and it must be easily absorbed. The varnishing products on the market are very different according to the intended use; it is therefore advisable, in order to achieve good

results, to make a precise selection of both the product and the varnishing process so as to avoid excessive colour variation or defects of various kinds.

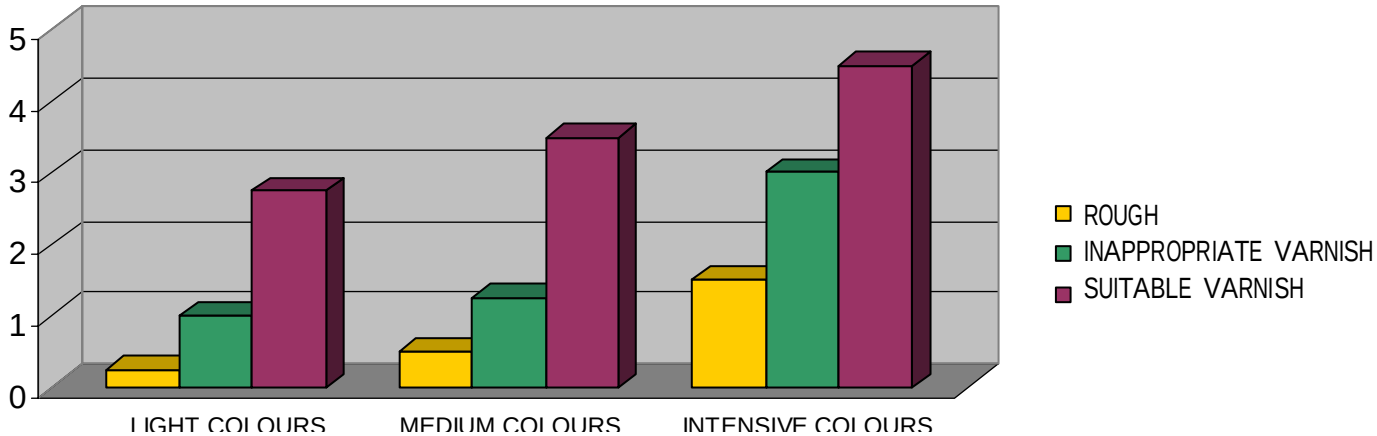
Varnishing: at the varnishing phase, the wood colour becomes more intense according to the degree of penetration of the varnishing product used. A greater degree of penetration corresponds to a more intense colour; a specific final colour will result according to the degree of penetration, transparency, colour and opaqueness; changing the varnishing product or the varnishing cycle can result in the same veneer (natural, pre-dyed, multilaminar) achieving a different final colour-tone. The varnish layer can have a greater or lesser tendency to go yellow and this can cause colour changes. Yellowing is more noticeable on light-coloured wood species (for example sycamore, pear, pine) while it will be less noticeable on dark-coloured species or those which tend to yellow (walnut, mahogany, rosewood). All wood types when exposed to light will change colour. The changes vary from species to species. In the case of sycamore and walnut the change tends toward yellow; in the case of padauk towards red, in the case of pear towards brown an so on. Possible discoloration may occur to surface coloured wood, pre-dyed TABU or M.W. due to overstepping of the limits of resistance to light or to the heat of the colorants used (of whatever kind). It is always essential to use varnishes which do not tend to yellow and which contain additives to absorb ultra-violet light which help protect the wood against light, bearing in mind that the varnish layer tends to act as a protection against light - a thicker layer means greater protection. While all

the wood species, natural or dyed, pre-dyed TABU or multilaminar woods which are not varnished have little resistance, they can, by the use of appropriate varnishes, reach the following light-resistance values (test Weather Ometer Atlas 25WR ISO 2809 20 H): sycamore and similar 2-3, walnut and similar colours 3-4, mahogany and rosewood 4-5 (scale 0-5).

How to determine light resistance: to give a value of light resistance expressed in terms of “time” (1 month, 1 year and so on) is virtually impossible in that wood or manufactured articles which contain it are exposed to rays emitted from light sources which are not quantifiable and which vary according to the type, the intensity, the length of exposure and the environmental conditions. For example, rays of sunlight filtered through a glass window change intensity according to the degree of altitude, if it shines vertically rather than horizontally, if it is direct or reflected, and so on. The weather conditions should be kept in mind. It is not possible to establish a point of reference relating to rainy days as opposed to cloudy ones and so on. As for artificial light sources, such as sun lamps, halogen lights, neon and so forth, the argument is virtually the same, in that every light source emits a different kind of wave, either shorter or longer, and they are positioned at differing distances and angles from the manufactured item. The method of measuring light resistance according to the UNI 2809 20 H standard or similar international standards, consists in subjecting a partially concealed substrate in a controlled environment (humidity and temperature, etc.) to exposure to one kind of light emitted from a particular light source for a

predetermined time (20, 30, 40 hours and so on), and, on uncovering the concealed area, observing the tonal variations between the two parts which will be revealed. Thus a value which expresses resistance to light is obtained. As regards the method referred to in the standard mentioned, the values are expressed in a scale of 0-5 (0 = least resistance, 5 = greatest resistance).

APPROXIMATE EXAMPLE OF THE KIND OF EVALUATION OF RESISTANCE TO LIGHT ACCORDING TO STANDARD ISO 2809 20H



Dyes: where it is desired to retouch the colour of a natural or pre-dyed veneer or M. W., water-soluble dyes can be used, applied by spray or roller, taking care that the moisture content of the veneer does not exceed 12 %

before the application of the varnishing product. Solvent-based dyes, with or without a binding agent, may be used, taking care that they should not alter the transparency of the veneer.

Woods with deep or marked pores: ash, oak, walnut, M. W. and so on. In the case of these woods where deep or marked pores occur naturally, it is as well to remember that incorrect filling of these pores with the varnishing product can cause “silvering” or “pore-whitening”. Therefore it is essential to use low-viscosity (liquid) varnishes which are quite slow-drying, particularly for the first coat; this is to allow the varnish to penetrate deeply and to facilitate the release of the air contained in these deep pores.

Moisture content of wood: not above 12 % at the time of varnishing.

Primers and finishing products: nitrous-based products, polyurethane, water-based acrylic and so on; in particular, on light and pastel-coloured woods, use non-yellowing products with ultra-violet absorbing additives.

Protective film: on dyed woods or M. W., use a non-yellowing protective layer for light-coloured woods; avoid using protective layers for dark woods on light colours. Protective layers for dark woods are used to create a film on particularly oily woods (such as rosewood, teak, etc.) during the process of applying polyester. Non-oily wood species (such as mahogany, anegré, tulipier, birch, sycamore and so on), pre-dyed TABU or woods treated with

water-soluble dyes or solvent-based colorants, may be varnished by polyester processing, without being treated with a protective layer. However, it is advisable to apply such a layer to avoid possible incompatibility between the polyester (peroxide) and some types of colorants. Such incompatibility may cause colour changes, for example the colour combination red-black-orange in which the red is incompatible, results in loss of red in the base colour. Always use protective layer products which dry fairly slowly to avoid pore-whitening.

Naturally-dryed polyester: on light or pastel colours use clear polyester paraffin varnishes which do not tend to turn pink or green, and which do not cause opalescence or stains on drying.

Varnishes for ultra-violet ray drying: use products which do not alter the wood colour and which limit as far as possible U. V. ray exposure, which bring about colour changes. In the varnishing process, before drying, the pores of the wood must be completely filled with the varnishing product, which in this way replaces the air in the pores. This procedure is sometimes compromised by work practices which seek to accelerate the production cycles and to limit the amount of varnishing product used. In the U. V. drying process there are very short drying times. If you change the relationship between the machinery speed, paint quantity and light intensity, the

varnishing product improperly or unsuitably applied will not penetrate or adhere sufficiently and as a result, pore-whitening, opalescence, white stains and blisters etc. will result.

Re-varnishing: it is sufficient to remove the layer of varnish by sanding and to get back to bare wood and start the new varnishing procedure. Again in the case of colour changes caused by exposure to light or an inappropriate varnish layer, by sanding thoroughly the wood will return to its original colour.

Notes: as regards U. V. drying varnishes, it is not possible to add U. V.-ray absorbers since they inhibit the drying process. This factor makes these products less efficient as regards protection of the wood against light.

PRE-DYED VENEERS

UNI Standards 10578-10651

Wood for furniture is usually dyed to eliminate the colour differences which arise from log to log and also for aesthetic reasons. In fact the designer looks for particular colour effects and reflects and co-ordinates the colours of the materials which make up a furnishing ensemble, using the wood itself to achieve a perfect fusion of shape, colour and space. Colour differences from one log to another are fundamental to each wood species, but even in an "individual" log colour variations may be met. The reasons for this are attributable to the natural characteristics of wood, to the season the tree is felled, to the degree of drying-out, to the processing and drying-out which occurs during the slicing phase and to other reasons besides. It is therefore standard practice to varnish the product, whether for technical or, not least, aesthetic reasons. Even before colour had the importance it has today, slight variations in coolness or intensity of colour were sought, in order to replicate a certain colour in a range which was still nonetheless of the same tone present in each wood species, as, for example, in the case of walnut: yellow, red or brown in varying intensity. There are two methods of dyeing veneer: the surface dyeing of the substrate which has already been veneered, or the dyeing of the veneer sheet in its crude state (the TABU system), before its application to the substrate (pre-dyed veneer). In this system, the veneer is dyed using special techniques when it is still in the crude state, that is before it is glued to the substrate. In this way the dyeing agent permeates the whole thickness of the veneer itself, whose method of use, veneer application system, sanding and varnishing remain similar to those employed in working natural veneers. During the processing cycle, TABU's dyed veneers lose

PRE-DYED VENEERS

some of their constituents, which in some wood species possess a certain degree of toxicity, and certain amounts of dyeing agents are added so as to render the TABU pre-dyed veneers practically non-toxic and resistant to wood-worm. The mechanical, chemical and physical characteristics remain unaltered and there are, indeed, a number of advantages, amongst which are the following:

- the possibility of eliminating, in some cases, stains upon the veneers, or to adjust strong colour differences between the darker or lighter grains;
- the possibility of eliminating the colour differences existing in veneers obtained from different logs of the same species;
- the possibility of applying veneers of different colours onto the same substrate (marquetry work and combination of colours);
- the ease of processing or working by eliminating problems caused by surface dyeing;
- the possibility of obtaining all the colours in the colour range;
- the advantage of emphasising the grain of or figure of the wood;
- the permitting of consistent colour reproduction.

Another positive factor is the wide colour spectrum obtainable. This has become very important in the last few years, when the public has become very much aware of subtle colour differences, and colour has assumed a vital importance for the modern designer. All veneers may be pre-dyed. At the end various wood species in many standard production colours have been listed, available in the warehouse in small or large quantities to satisfy the various

PRE-DYED VENEERS

needs of the clients. Non-standard colours can be made up in samples at the client's request.

Minium quantity:

- natural or standard colours: 1 bundle (about 10 m2)
- non standard colours : about 550 m2

WOOD SPECIES INDEX

ASH

Latin name: Fraxinus excelsior L. e Fraxinus omus L.
Commercial names: Frene, Ash, Esche, Fresno
Original names: Fraissu, Lusa, Fersena, Frosso, Frascinu, Orniello
Distribution: Ash is found as scattered trees in Italy and Europe (excluding the farthest northern belt) in mixed hardwood forests; it also grows in Asia and America, in plain to mid-mountain regions
Mechanical properties: Average resistance to longitudinal compression 50 N/mm², bending strength 105 N/mm²
Modulus of elasticity: 12.500 N/mm²
Density: 720 Kg/m³
Dimensional changes: medium
Hardness: good
Texture: medium
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

ASH


TABU 26.032


TABU 26.033


TABU 26.034


TABU 26.035


TABU 26.036


TABU 26.037


TABU 26.038


TABU 26.039


TABU 26.040


TABU 26.041


TABU 26.042


TABU 26.043


TABU 26.044


TABU 26.045


TABU 26.046

ASH


TABU 26.047


TABU 26.048


TABU 26.049


TABU 26.050


TABU 26.051


TABU 26.052


TABU 26.053


TABU 26.054


TABU 26.055


TABU 26.056


TABU 26.058


TABU 26.059

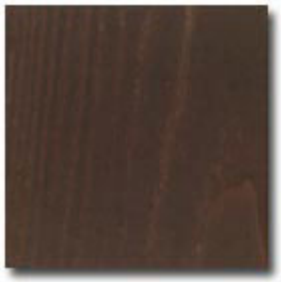

TABU 26.060


TABU 26.061


TABU 26.062

ASH


TABU 26.063


TABU 26.064


TABU 26.065

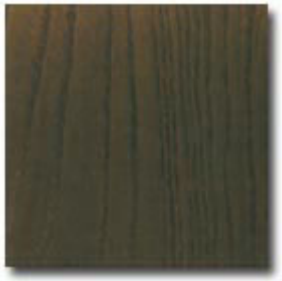

TABU 26.066


TABU 26.067


TABU 26.068


TABU 26.069


TABU 26.070


TABU 26.071


TABU 26.072


TABU 26.073


TABU 26.074


TABU 26.075


TABU 26.076

ASH BURR

Latin name: Fraxinus excelsior L. e Fraxinus omus L.
Commercial names: Frene, Ash, Esche, Fresno
Original names: Fraissu, Lusa, Fersena, Frosso, Frascinu, Orniello
Distribution: Ash is found as scattered trees in Italy and Europe (excluding the farthest northern belt) in mixed hardwood forests; it also grows in Asia and America, in plain to mid-mountain regions
Mechanical properties: Average resistance to longitudinal compression 50 N/mm², bending strength 105 N/mm²
Modulus of elasticity: 12.500 N/mm²
Density: 720 Kg/m³
Dimensional changes: medium
Hardness: good
Texture: medium
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: according to the log WIDTHS: according to the log

ASH BURR

TABU 72.010

TABU 72.012

TABU 72.013

TABU 72.014

TABU 72.015

TABU 72.016

BEECH

Latin name: Fagus sylvatica L.
Commercial names: Hêtre, Beech, Buche, Haya
Original names: Fo, Fagher, Fajar, Vespul, Faz, Fagu
Distribution: Beech is found in unmixed stands or growing with other species all over Europe, excluding the northermost belt.
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 120 N/mm²
Modulus of elasticity: 14.500 N/mm²
Density: 730 Kg/m³
Dimensional changes: large
Hardness: medium to good
Texture: medium to fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

BEECH


TABU 20.010


TABU 20.011


TABU 20.012


TABU 20.013


TABU 20.014


TABU 20.015


TABU 20.018


TABU 20.019

BIRCH

Latin name: Betula alba
Commercial and Original names: Betulla bianca, Betulla finlandese, Bouleau blanc, Birche, Weissbirche, Abedul
Distribution: Europe, northern countries in particular
Mechanical properties: Average resistance to longitudinal compression 46 N/mm², bending strength 85 N/mm²
Modulus of elasticity: 13.000 N/mm²
Density: 600 Kg/m³
Dimensional changes: medium
Hardness: medium to good
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3200 mm WIDTHS: 150-600 mm

BIRCH


TABU 27.041


TABU 27.042


TABU 27.043


TABU 27.044


TABU 27.045


TABU 27.046


TABU 27.047


TABU 27.048


TABU 27.049


TABU 27.051


TABU 27.052


TABU 27.053


TABU 27.054


TABU 27.055


TABU 27.056

BIRCH


TABU 27.057


TABU 27.058


TABU 27.059


TABU 27.060


TABU 27.061


TABU 27.062


TABU 27.063


TABU 27.064


TABU 27.065

BOLIVAR

Latin name: Liriodendron tulipifera
Commercial names: Bolivar, Tulipier, Tulipier, Tulpenbaum, Whitewood
Original names: Tulip wood, Tulip Poplar and Yellow Poplar (utterly incorrect names considering that the botanical characters of Poplars are thoroughly different)
Distribution: eastern part of Central USA
Mechanical properties: Average resistance to longitudinal compression 37 N/mm², bending strength 70 N/mm²
Modulus of elasticity: 10.000 N/mm²
Density: 460 Kg/m³
Dimensional changes: medium to large
Hardness: fairly low
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3800 mm WIDTHS: 100-300 mm

BOLIVAR


TABU 52.040


TABU 52.041


TABU 52.042


TABU 52.043


TABU 52.044


TABU 52.045


TABU 52.046


TABU 52.047


TABU 52.048


TABU 52.049


TABU 52.050


TABU 52.051


TABU 52.052


TABU 52.053


TABU 52.054

BOLIVAR


TABU 52.055


TABU 52.056


TABU 52.057


TABU 52.058


TABU 52.059


TABU 52.060


TABU 52.061


TABU 52.062


TABU 52.063


TABU 52.064


TABU 52.065


TABU 52.066


TABU 52.067


TABU 52.068


TABU 52.069

BOLIVAR


TABU 52.070


TABU 52.071


TABU 52.072


TABU 52.073


TABU 52.077


TABU 52.078


TABU 52.079


TABU 52.080


TABU 52.081


TABU 52.082


TABU 52.083


TABU 52.084


TABU 52.085


TABU 52.086


TABU 52.087

BOLIVAR


TABU 52.088


TABU 52.089


TABU 52.090


TABU 52.091


TABU 52.092


TABU 52.093


TABU 52.094


TABU 52.095

CARBALHO

Latin name: Euplassa cantareirae
Commercial names: Carvalho, Carbalho
Original names: Carvalho brasileiro
Distribution: Brasil
Mechanical properties: Average resistance to longitudinal compression 30 N/mm², bending strength 75 N/mm²
Modulus of elasticity: 6.000 N/mm²
Density: 550 Kg/m³
Dimensional changes: medium to large
Hardness: fairly low
Texture: medium to coarse
Porosity: high

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3200 mm WIDTHS: 80-200 mm

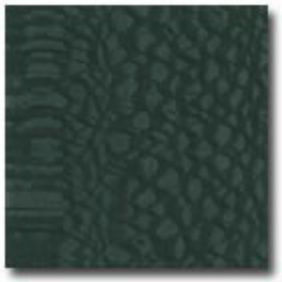
CARBALHO


TABU 81.048


TABU 81.049


TABU 81.051


TABU 81.053


TABU 81.054


TABU 81.055


TABU 81.056


TABU 81.058


TABU 81.059


TABU 81.063


TABU 81.064


TABU 81.065

CHERRY

Latin name: Prunus avium
Commercial names: Ciliegio, Merisier, Cerezo, Kirschbaum, Cherry
Distribution: America, Europe, Asia Minor
Mechanical properties: Average resistance to longitudinal compression 42 N/mm², bending strength 80 N/mm²
Modulus of elasticity: 7.700 N/mm²
Density: 580 Kg/m³
Dimensional changes: medium to large
Hardness: medium
Texture: medium
Porosity: medium

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-300 mm

CHERRY


TABU C3.010


TABU C3.011


TABU C3.012


TABU C3.013


TABU C3.014


TABU C3.015


TABU C3.018


TABU C3.019

LATI

Latin name: Amphimas pterocarpoides Harms
Commercial names: Lati
Original names: Lati, Asanfran, Bokanga, Dschi, Edi, Edjin, Gworluh, Kouedi, Muizi, Ogiya, Vahnchu, Zehoui
Distribution: West Africa
Mechanical properties: no information available
Modulus of elasticity: no information available
Density: 680-820 Kg/m³
Dimensional changes: medium to large
Hardness: good
Texture: medium
Porosity: medium

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

LATI

TABU 86.040

TABU 86.041

MADRONA BURR

Latin name: Arbutus menziesii
Commercial names: Arbutus, Madrona, Madrono
Original names: Manzanita, Madrona, Jarrito
Distribution: North America
Mechanical properties: no information is available
Modulus of elasticity: no information is available
Density: 750 Kg/m³
Dimensional changes: large
Hardness: fairly low
Texture: medium
Porosity: fairly low

THICKNESS: 0,6 mm (nominal) LENGTHS: according to the log WIDTHS: according to the log

MADRONA BURR


TABU 46.002


TABU 46.003


TABU 46.004


TABU 46.005


TABU 46.006


TABU 46.007


TABU 46.008


TABU 46.010


TABU 46.013


TABU 46.031


TABU 46.043


TABU 46.050

MAHOGANY POMELE'

Latin name: Entandrophragma cylindricum
Commercial names: Acajou, Mahagoni
Original names: Chiculte, Caobano, Gateado, Araputanga
Distribution: Central and South America, Africa
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 130 N/mm²
Modulus of elasticity: 11.000 N/mm²
Density: 690 Kg/m³
Dimensional changes: small to medium
Hardness: medium
Texture: medium
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-600 mm

MAHOGANY POMELE’

TABU 08.P.010

TABU 08.P.012

MAPLE AMERICAN

Latin name: Acer sp.p.
Commercial names: Acero americano, Erable d'Amerique, Ahorn, Arce, Sugar Maple, Black Maple, Hard Maple
Original names: Erable d'Amerique dur, Hard Maple, Black Maple
Distribution: USA, Canada
Mechanical properties: Average resistance to longitudinal compression: 45 N/mm², bending strength: 110 N/mm²
Modulus of elasticity: 9.400 N/mm²
Density: 660 kg/m³ 12 % MC
Dimensional changes: medium to large
Hardness: medium
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

MAPLE AMERICAN

TABU G5.010

TABU G5.011

MAPLE BIRD'S EYE

Latin name: Acer
Commercial names: Acero americano, Erable d'Amerique, Ahorn, Arce, Sugar Maple, Black Maple, Hard Maple
Original names: Erable d'Amerique dur, Hard Maple, Black Maple
Distribution: Usa, Canada
Mechanical properties: verage resistance to longitudinal compression: 45 N/mm², bending strength: 110 N/mm²
Modulus of elasticity: 9.400 N/mm²
Density: 660 Kg/m³
Dimensional changes: medium to large
Hardness: medium
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3600 mm WIDTHS: 120-600 mm

MAPLE BIRD'S EYE


TABU 05.039


TABU 05.040


TABU 05.041


TABU 05.042


TABU 05.043


TABU 05.044


TABU 05.045


TABU 05.046


TABU 05.047


TABU 05.048


TABU 05.049


TABU 05.050


TABU 05.051


TABU 05.052


TABU 05.053

MAPLE BIRD'S EYE


TABU 05.054


TABU 05.055


TABU 05.056


TABU 05.057


TABU 05.058


TABU 05.059


TABU 05.060


TABU 05.061


TABU 05.062


TABU 05.063


TABU 05.065


TABU 05.066


TABU 05.067


TABU 05.068


TABU 05.069

MAPLE BIRD'S EYE


TABU 05.070


TABU 05.072


TABU 05.073


TABU 05.074


TABU 05.075


TABU 05.076


TABU 05.077


TABU 05.079


TABU 05.080


TABU 05.081


TABU 05.082


TABU 05.083


TABU 05.084


TABU 05.085


TABU 05.086

MAPLE BIRD'S EYE


TABU 05.087


TABU 05.088


TABU 05.089


TABU 05.090


TABU 05.091

MAPLE QUILTED

Latin name: Various species belong to the botanical genus Acer; among these the following are important in Italy: Acer campestre L., A. pseudoplatanus L., A. opalus Mill. and A. platanoides
Commercial names: Acero, Erable, Ahorn, Arce, Sicomoro, European Maple
Original names: Oppio, Rompich, Aierela, Testuccio, Occhino, Aggeru, Acero Montano, A. fico, Loppone, Opalo, Loppo, Acero riccio, Cerfico, Platanaria
Distribution: both in Italy and in central-southern Europe Sycamores can be found in mixed hardwood forests, from the plain to mid mountain, but hardly ever in unmixed stands. The following information is referred in particular to Sycamore Maple (or Planetree), which is the one more frequently commercialised
Mechanical properties: verage resistance to longitudinal compression 45 N/mm², ending strength110 N/mm²
Modulus of elasticity: 9.400 N/mm²
Density: 660 Kg/m³
Dimensional changes: medium
Hardness: good
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-600 mm

MAPLE QUILTED

TABU D7.P.023

TABU D7.P.024

TABU D7.P.025

TABU D7.P.026

MOVINGUE FIGURED

Latin name: Distemonanthus benthamanus Baill
Commercial names: Movingui, Ayan
Original names: Gwadau, Barre, Bonsamdwa, Duabei, Okpoe, Eyen, Bien; also erroneausly called Nigerian Satinwood and African acacia
Distribution: forests of the tropical-equatorial belt round the Gulf of Guinea, from the Ivory Coast to Gabon
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 150 N/mm²
Modulus of elasticity: 11.000 N/mm²
Density: 700 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: medium
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3800 mm WIDTHS: 120-300 mm

MOVINGUE FIGURED

TABU D5.S.010

TABU D5.S.011

TABU D5.S.012

TABU D5.S.013

OAK

Latin name: although the woods marketed under the commercial name Oak are produced from three different botanical species, Quercus petraea Liebl, (or Durmast oak), Q. pedunculata Ehrh. (or Pedunculate oak) and Q. pubescens Wild. (or Chêne pubescent), they are hardly distinguishable from one another
Commercial names: Rouvre, Chêne pedunculè, Oak, Stieleiche, Traubeneiche, Roble
Original names: Roul, Galera, Gettina, Ischia
Distribution: Pedunculate oak, which used to be the most widespread in the Po valley, is now confined to very restricted areas, whereas in central and southern Italy the other two species prevail. In central and eastern Europe it forms large beautiful forests
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 110 N/mm²
Modulus of elasticity: 12.500 N/mm²
Density: 780 Kg/m³
Dimensional changes: medium to large
Hardness: very good
Texture: medium
Porosity: high

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

OAK

TABU 13.040

TABU 13.041

TABU 13.042

TABU 13.043

PERPERO

Latin name: Liquidambar styraciflua
Commercial names: Noce satin-perpero, Amberbaum, American redgum, Liquidambar, Gomier d'Amerique
Original names: Tupelo, Gum, Yellowgum, Redgum, Liquidambar, Sapgum
Distribution: central America
Mechanical properties: Average resistance to longitudinal compression 45 N/mm², bending strength 85 N/mm²
Modulus of elasticity: 11.200 N/mm²
Density: 500 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

PERPERO


TABU D6.010


TABU D6.012


TABU D6.013


TABU D6.014


TABU D6.015


TABU D6.016


TABU D6.018


TABU D6.019

PLANE FIGURED

Latin name: Platanus acerifolia
Commercial names: Platano, Platane, Plane, Platano platero
Original names: Platano, Platane, Plane, Platano platero
Distribution: Europe
Mechanical properties: no information is available
Modulus of elasticity: no information is available
Density: 600 Kg/m³
Dimensional changes: medium
Hardness: fairly low
Texture: media
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-600 mm

PLANE FIGURED

TABU 33.010

TABU 33.011

SYCAMORE FIGURED

Latin name: Various species belong to the botanical genus Acer; among these the following are important in Italy: Acer campestre L., A. pseudoplatanus L., A. opalus Mill. and A. platanoides
Commercial names: Acero, Erable, Ahorn, Arce, Sicomoro, European Maple
Original names: Oppio, Rompich, Aierela, Testuccio, Occhino, Aggeru, Acero Montano, A. fico, Loppone, Opalo, Loppo, Acero riccio, Cerfico, Platanaria
Distribution: both in Italy and in central-southern Europe Sycamores can be found in mixed hardwood forests, from the plain to mid mountain, but hardly ever in unmixed stands. The following information is referred in particular to Sycamore Maple (or Planetree), which is the one more frequently commercialised
Mechanical properties: Average resistance to longitudinal compression: 45 N/mm², bending strength: 110 N/mm²
Modulus of elasticity: 9.400 N/mm²
Density: 660 Kg/m³
Dimensional changes: medium
Hardness: good
Texture: fine
Porosity: low

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3600 mm WIDTHS: 120-600 mm

SYCAMORE FIGURED


TABU 09.S.001


TABU 09.S.002


TABU 09.S.003


TABU 09.S.004


TABU 09.S.005


TABU 09.S.006


TABU 09.S.007


TABU 09.S.008


TABU 09.S.009


TABU 09.S.010


TABU 09.S.011


TABU 09.S.012


TABU 09.S.013


TABU 09.S.014


TABU 09.S.086

SYCAMORE FIGURED


TABU 09.S.087


TABU 09.S.088


TABU 09.S.089


TABU 09.S.090


TABU 09.S.091

TABA FIGURED

Latin name: Micropholis venulosa (Sapotaceae)
Commercial names: Curupixa, Abiurana
Original names: Abiurana, Cubixa, Curupixa, Grubixa, Grumixava, Pau de remo, Rosadinho, Moraballi, Baaka bouba, Bacouman, Balata blanc, Balata indien, Bouchi apa, Maaka, Reini lout
Distribution: South America
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 110 N/mm²
Modulus of elasticity: 17.000 N/mm²
Density: 750 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: medium
Porosity: high

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3800 mm WIDTHS: 120-300 mm

TABA FIGURED


TABU L1.S.050


TABU L1.S.051


TABU L1.S.054


TABU L1.S.055

TANGANIKA

Latin name: Aningeria altissima Aubr.et Pellegr., A.adolfi-friederici Rob. & Gilb.
Commercial names: Anegrè, Aniegre, Tanganika, Anigeria, Aninguerie, Mukali
Original names: Kali, Sanfena, M'boul, Longhi blanc, N'kali, Kararò, Grogoli, Mukali, Kombe, Muna, Mukangu, Landosan, Abam
Distribution: damp forests of the equatorial belt extending across Africa, from Sierra Leone, Liberia, Ivory Coast to Zaire, the Great Lakes region and Ethiopia
Mechanical properties: Average resistance to longitudinal compression 57 N/mm², bending strength 105 N/mm²
Modulus of elasticity: 11.200 N/mm²
Density: 550-600 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: medium
Porosity: fairly low

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3800 mm WIDTHS: 120-350 mm

TANGANIKA


TABU 01.001


TABU 01.002


TABU 01.003


TABU 01.004


TABU 01.005


TABU 01.006


TABU 01.007


TABU 01.008


TABU 01.009


TABU 01.010


TABU 01.011


TABU 01.012


TABU 01.013


TABU 01.050


TABU 01.051

TANGANIKA


TABU 01.052


TABU 01.053


TABU 01.054


TABU 01.055


TABU 01.056


TABU 01.057


TABU 01.058


TABU 01.059


TABU 01.061

TANGANIKA FIGURED

Latin name: Aningeria altissima Aubr.et Pellegr., A.adolfi-friederici Rob. & Gilb.
Commercial names: Anegrè, Aniegre, Tanganika, Anigeria, Aninguerie, Mukali
Original names: Kali, Sanfena, M'boul, Longhi blanc, N'kali, Kararò, Grogoli, Mukali, Kombe, Muna, Mukangu, Landosan, Abam
Distribution: damp forests of the equatorial belt extending across Africa, from Sierra Leone, Liberia, Ivory Coast to Zaire, the Great Lakes region and Ethiopia
Mechanical properties: Average resistance to longitudinal compression 57 N/mm², bending strength 105 N/mm²
Modulus of elasticity: 11.200 N/mm²
Density: 550-600 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: medium
Porosity: fairly low

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3800 mm WIDTHS: 120-350 mm

TANGANIKA FIGURED


TABU 01.S.050


TABU 01.S.062


TABU 01.S.115


TABU 01.S.116


TABU 01.S.117


TABU 01.S.118


TABU 01.S.128


TABU 01.S.137

TAY

Latin name: Pterygota macrocarpa K Shum., P. Bequaertii de wild
Commercial names: Kotò, African pterygota
Original names: Koto, Bontue, Pohouro, Bofo-Ovale, Kumbi, Ikame, Poroporo, Efok, Kion, Awari, Kiere, Wawampe, Pterigota
Distribution: damp forests of the tropical-equatorial belt around the Gulf of Guinea, from Ivory Coast to Gabon and the Central African Republic
Mechanical properties: Average resistance to longitudinal compression 55 N/mm², bending strength 120 N/mm²
Modulus of elasticity: 11.500 N/mm²
Density: 600 Kg/m³
Dimensional changes: medium
Hardness: fairly low
Texture: medium to coarse
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: 1500-3800 mm WIDTHS: 120-350 mm

TAY


TABU 04.036


TABU 04.037


TABU 04.038


TABU 04.039


TABU 04.040


TABU 04.041


TABU 04.042


TABU 04.043


TABU 04.044


TABU 04.045


TABU 04.046


TABU 04.047


TABU 04.048


TABU 04.049


TABU 04.050

TAY


TABU 04.051


TABU 04.052


TABU 04.054


TABU 04.056


TABU 04.058


TABU 04.059


TABU 04.060


TABU 04.062


TABU 04.064


TABU 04.065


TABU 04.067


TABU 04.069


TABU 04.071


TABU 04.072


TABU 04.075

WALNUT BLACK

Latin name: Juglans nigra L.
Commercial names: Noce nero (Canaletto), Noyer noir d'Amerique, Amerikanische Nussbaum, Nogal
Original names: Black Walnut, American Walnut, Gunwood
Distribution: from the Mississippi Basin to the Atlantic coast of the USA to the Great Lakes region
Mechanical properties: Average resistance to longitudinal compression 50 N/mm², bending strength 100 N/mm²
Modulus of elasticity: 12.000 N/mm²
Density: 640 Kg/m³
Dimensional changes: small
Hardness: medium
Texture: fine
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3800 mm WIDTHS: 120-350 mm

WALNUT BLACK


TABU 51.010


TABU 51.011


TABU 51.012


TABU 51.013


TABU 51.014


TABU 51.015


TABU 51.016


TABU 51.017

WALNUT EUROPEAN

Latin name: Juglans regia L.
Commercial names: Noyer, Nussbaum, Nogal, Walnut
Original names: Nus, Nogher, Cocolar, Nociara
Distribution: Europe. Walnut, which is not commonly found in forests, is cultivated in southern and central Europe for its fruits
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 100 N/mm²
Modulus of elasticity: 10.800 N/mm²
Density: 720 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: medium
Porosity: medium

THICKNESS: 0,6 mm (nominal) LENGTHS: 500-3200 mm WIDTHS: 100-300 mm

WALNUT EUROPEAN


TABU 06.018


TABU 06.019


TABU 06.020


TABU 06.021


TABU 06.022


TABU 06.023


TABU 06.024


TABU 06.025

WALNUT BURR CALIFORNIA

Latin name: Juglans nigra L.
Commercial names: Black Walnut, American Walnut, Gunwood
Original names: Black Walnut, American Walnut, Gunwood
Distribution: from the Mississippi Basin to the Atlantic coast of the USA to the Great Lakes region
Mechanical properties: Average resistance to longitudinal compression 50 N/mm², bending strength 100 N/mm²
Modulus of elasticity: 12.000 N/mm²
Density: 640 Kg/m³
Dimensional changes: small
Hardness: medium
Texture: fine
Porosity: quite high

THICKNESS: 0,6 mm (nominal) LENGTHS: according to the log WIDTHS: according to the log

WALNUT BURR CALIFORNIA

TABU A3.041

TABU A3.043

TABU A3.045

WALNUT BURR EUROPEAN

Latin name: Juglans regia L.
Commercial names: Noyer, Nussbaum, Nogal, Walnut
Original names: Nus, Nogher, Cocolar, Nociara
Distribution: Europe. Walnut, which is not commonly found in forests, is cultivated in southern and central Europe for its fruits
Mechanical properties: Average resistance to longitudinal compression 60 N/mm², bending strength 100 N/mm²
Modulus of elasticity: 10.800 N/mm²
Density: 720 Kg/m³
Dimensional changes: medium
Hardness: medium
Texture: medium
Porosity: medium

THICKNESS: 0,6 mm (nominal) LENGTHS: according to the log WIDTHS: according to the log

WALNUT BURR EUROPEAN

TABU 99.040

TABU 99.042

TABU 99.044

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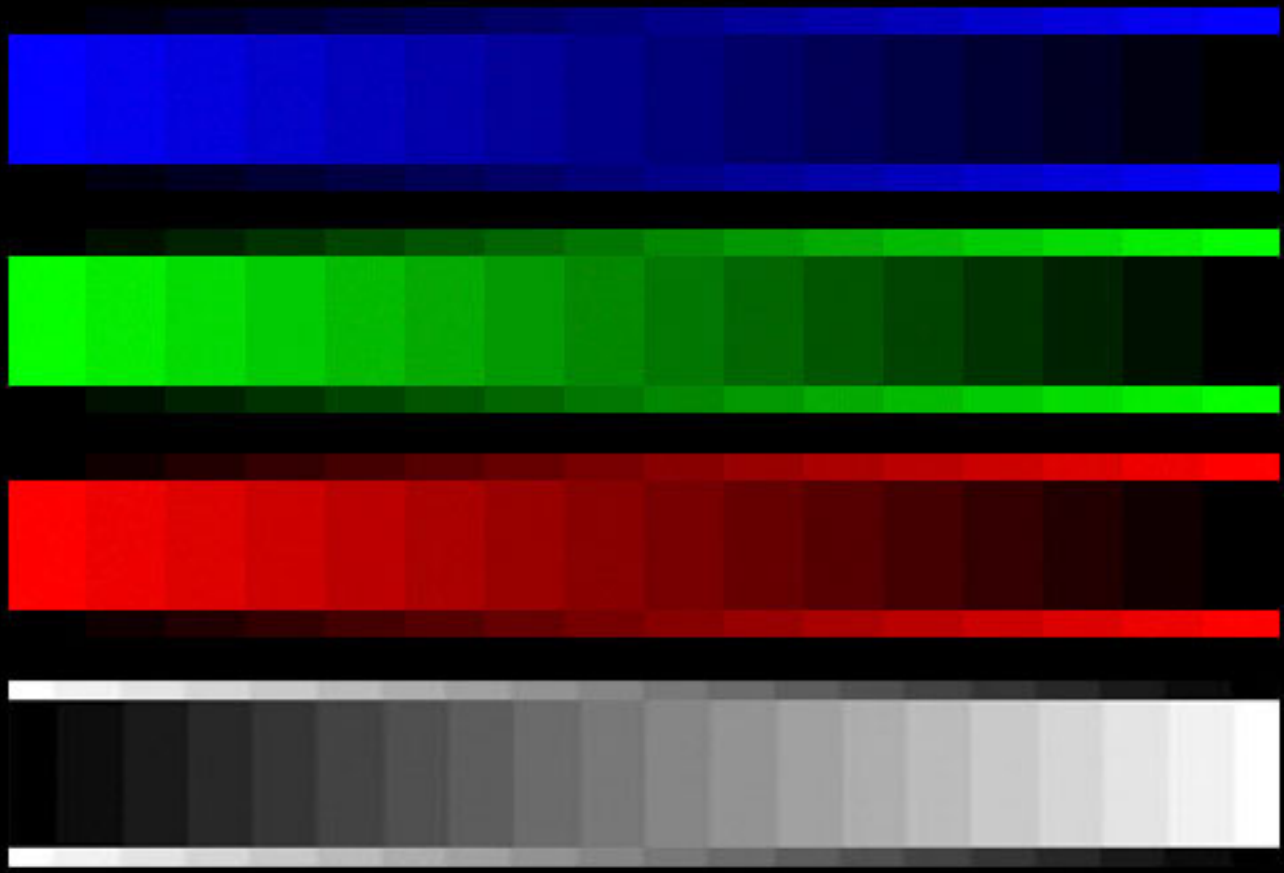

For a correct shade balancing, screen colour temperature shouldn’t be less than 9000°K (best 9300 °K).
Adjust Brightness, Contrast, Saturation, using the upper bars.
Red, Green, Blue channels and the Greys scale must be properly adjusted with all the shades from the darkest to the lightest.
If such gradation scales are not visible, adjust screed values at the best, till separations between shades are constant and distinguishable.

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