

# TECHNICAL DATA SHEET NATURAL-DYED WOOD VENEER

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# 1. PRODUCT IDENTIFICATION

*Material name:* Oak – 13.XXX

Natural wood veneer dyed through all its thickness (UNI 10578, UNI 10651)

*Family:* Fagaceae

**Scientific name:** Quercus petraea / Quercus robur / Quercus peduncolata

**Provenience:** North America / Europe

*Producer*: TABU S.p.A.

# 2. TECHNICAL CHARACTERISTICS

**Thickness:** veneer 0.5 mm nominal value

*Dimensions:* Length: variable between 500 mm and 4000 mm

Width: variable between 70 mm and 600 mm

*Cut:* Quarter cut

*Density:* 0,50 / 0,63 g/cm<sup>3</sup>

Flexibility: 12500 MPa

Bending strength: 110 MPa

Compressive strength: 60 MPa

*Humidity content:* <16%

Being the product composed of wood, it is subjected to a great number of variation as concerning its humidity level in relation to the environment in which it is carried, manipulated and stored.

Light Resistance: since the TABU veneer is not a finished product, the light resistance on the veneer itself depends on the type of finishing that will be applied (chemical type and quantity). For this reason, it is suggested to do some prior tests with different types of finishing so as to optimize the performances of the product.









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**Mechanical characteristics**: the mechanical features of the natural dyed wood veneer are highly dependent on the type of support used, on the way of plating, on the cycle and on the chemical nature of the varnishing cycle. For this reason, it is suggested to do some prior tests depending on the kind of usage so as to optimize the performances.

**Aesthetic characteristics**: wood veneers present a variability in the structure, due to particular features that are peculiars of the each single tree. As concerning the color too, there could be a variability of the same compared to the color of reference. Moreover, the color of the final products is influenced by the cycle and by the chemical structure of the goods that are used for the varnishing process.

# 3. STORAGE

Since its hydrophilic characteristics, the wood is consequently subjected to a variation of its humidity content in relation to the environment in which it is carried, manipulated and stored; it is suggested to keep it in an environment with a humidity relative rate that varies from 40% to 60% and with temperature between 15°C and 25°C. Any contact with water or other liquids must be avoided. The product must be stored at, at least, 20 cm up from the ground. The exposition to the light must be avoided even though it is indirect.

If these indications will not be followed, significant variations of tension or color of the material may occur.

# 4. APPLICATION FIELD

The TABU natural dyed veneer could be glued on a stable support (MDF, clipboard and multi-layer panel). It could be also used for the realization of plywood, curved products, boards, solid wood, etc.

# 5. HOW TO USE

#### Platina

In the plating process of the material, it is advisable to verify if the type of support and the resins are suitable for the gluing of the product. It is suggested to use different types of resins, both thermosetting and thermoplastic, according to the temperature and the method of gluing of the veneer. It is best practice to strictly follow the indications given by the manufacturing industries that produce resins and to do some prior tests before proceeding with the plating process.

#### Gluing through urea resins

The TABU natural dyed veneers could be glued to all type of wood support using urea resins. Different supports must be verified case by case. The quantity of glue that must be applied per m2 depends on the wood specie, on the structure and the thickness of the veneer (quarter cut, flat cut or burl), on the type and thickness of the support and on the way of pressing. It is suggested not to exceed over 160 g/mq of glue with variable pressures between 1,5 and 5 bar. The plating temperature varies according to the type of glue and it could vary between 60° C and 120°C, avoiding the usage of higher temperatures. The plating timing should be proportionate to the temperature; the pressing brush must not be kept at high temperatures for long time. In order to avoid the sweating of the resin through the veneer, it is possible to add some additives to modify the viscosity. It is always suggested to use pigmentations with tones that are similar to the color of the veneer. For certain wood species, it is advisable to use the urea resin mixed together with vinyl resin from 10 to 30 %.









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#### Gluing through vinyl resins

The TABU natural dyed veneers could be glued to all type of wood supports using vinyl resins. Different supports must be verified case by case. The quantity of vinyl resin, that is to be used for the gluing process, must be carefully controlled as to avoid possible sweating, since its thermoplastic characteristics could be hardly erasable during the sanding process. For this reason, it is better to make reference to the technical sheets of the resin; normally, it is suggested to use between 80 and 120 g/mq of resin for pressures that could vary between 1,5 and 4 bar. The suggested plating temperature is between 60° and 90° C. Verify the gluing category of the glue before using it.

#### Sanding

After the supporting process, the natural dye veneer must be sanded with abrasive papers with the purpose to eliminate any trace of glue on the surface.

This operation could be carried out with manual or automatic machineries using abrasive papers with 120-150-180 grain; they could be used individually or in sequence. Each wood specie has a different level of rigidity: as a consequence, it is necessary to regulate the settings of the machineries as to obtain a suitable level of sanding.

# Varnishing

The varnishing process that will be adopted has the purpose of protecting and preventing the material from degradation phenomena of chemical-physical and mechanical nature.

The natural dyed wood veneer could be varnished with any type of varnishing both transparent and colored. In any case, it is advisable to prepare varnishing cycles that will allow an high protection from the UV rays and that will delay the natural yellowing of the veneer.

As concerning water-varnishes, it is recommended to use only stable products with PH moderately acidic (4-7). The natural dyed veneer could be dyed without problems; the process of dyeing is recommended. It is best practice to strictly follow the indications given by the manufacturing industries who produce varnish and to do some prior tests before proceeding with the dyeing process.

#### Installation

Both natural dyed raw veneer and finished veneers are delicate and light sensitive. It is good practice to protect it during installation, for example with protective films, in order to avoid any scratches, marks or discolorations that may occur due to the effects of light and to maintain the original aspect.

## 6. Packaging information

The label on the packaging has the name of the producer and the product code.

N.B. This product must be stored, handled and used according to the regulation of best industrial practice and in conformity to the laws in force, based on the culture and on the commitment for the safeguard of the environment. All the information above are based on our knowledge and experiences, so they are to be considered as non-binding. It is up to the operator to ascertain their validity depending on his experiences, on the technological cycles that are used and on the final result. As a consequence, the application of our products must be adjusted to particular working conditions and to the use of other materials.

For further requests, it is recommended to contact our offices.





