

# wood, colours, surface finishes

Wood is a fascinating material that is beautiful and pleasing both to the eye and to the touch; it has a characteristic smell, texture and colour, and is synonymous with a safe approach to the environment. Wood is a renewable resource, does not pose any danger to human health and is no burden to the environment – not during its processing, while the products are used, nor after they have reached the end of their life. By planting new trees, their life cycle starts again.

Unlike modern materials, wood can age and acquires a unique maturity and patina over the course of time. By suitable care, wood can be supported in this process. Too low or too high air humidity or temperature adds to the wood's susceptibility to deformation, cracking or discolouring. See our Furniture care & maintenance manual to learn how to take care of the wooden parts of your furniture.

During the manufacturing process, deviations in shape occur, especially when assembling manu-

ally bent parts. To account for this, a dimensional tolerance of  $\pm 2$  cm is specified for the spacing of legs of all bent products.

## ■ PEFC

PEFC (Programme for the Endorsement of Forest Certification) is a non-governmental, non-profit organisation which was founded in 1999 in Geneva. It's an umbrella organisation of several autonomous national certification systems, whose scope protects more than two-thirds of forests worldwide. The PEFC certification system was created to protect forests. Its purpose is to preserve existing forest vegetation, plant new forests, forest management with respect to natural forest eco-systems and mainly to prevent devastation of forests. By labelling a product with the PEFC logo and our certificate number we confirm to our customers that we make products from wood which is acquired legally with support of sustainable forest management.



! Click on this [link](#) for detailed photographs.

## Texture, colouring and other properties of wood

### ■ Wood texture

Texture is the wood's natural pattern and is unique for each type of wood. The texture is determined by colour, lustre, the way the cut is made, and anatomical structure. Deciduous trees have a more complex anatomical structure, due to which we can see with the naked eye annual rings, pores, pith rays, knots, etc. For example, healthy small knots are valued for their decorative appeal. Knots develop in places where new or dead branches are covered by wood. A healthy knot is darker than the surrounding wood and does not diminish the wood quality. Oak differs from other woods by its texture, especially by visible pith rays occurring in a radial (central) cross-section in the form of small, differently coloured spots. These are called "mirrors" and are an evidence of genuine solid oak. In a tangential cut, the texture creates an interesting figured pattern.

Manual bending of wood may create larger or smaller cracks in the wood surface. They are known as superficial splits. They occur mainly when bending wood into large angles and are

caused by the run of the wood fibres. If the direction of the wood grain does not match the bending direction, the wood cracks on the outer side due to high tension inside the material. The bent parts are then carefully checked to ensure that the extent of the split does not compromise their strength or further processing. Superficial cracks can be repaired by gluing to prevent their re-opening. After thorough sanding, the surface becomes smooth and monolithic again. Cracks repaired in this way give the surface a new dimension because they complement the wood pattern with their characteristic shape of the letter 'v'.

### ■ Wood colour

Every tree has its typical colouring determined by climatic conditions and the combination of substances in the cell walls. Change in wood colouring caused by sunshine and oxidation is a natural feature of this material. Wood of lighter trees darkens and greys and by contrast wood of darker trees lightens.

! Wood colouring is also affected by the way it is processed. Before being bent, wooden rods are first steamed for up to several hours. Steaming gives beech wood its typical pinkish colour, the intensity of which differs depending on how long the wood is left in the steam. This phenomenon can be observed when light stains are applied to the wood. The logs are also steamed when making veneer, which changes the wood's properties. The veneer then reacts to stains differently than solid wood. The resulting shade of veneered and solid wood parts then might differ not only due to different production processes, but also due to the effect of UV radiation when the product is used.

! Each beech wood component reacts to selected technology in different ways. This natural property causes variation in component colour finish. Surface finishing with oil highlights these nuances. The colour aspect of independent wood components will even out within a few months in response to light and oxygen effects.

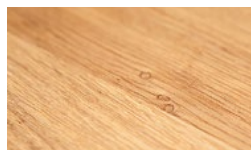
Wood grain



Mirrors



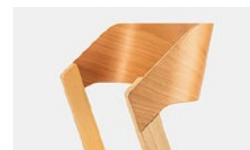
Knots



Cracks



Beech / Oil



## Natural wood finish

The natural wood finish is not modified in any way by staining or other agents during the production process. According to the type of wood, the surface is only finished with transparent lacquer or oil, thus naturally highlighting the wood texture. The execution of products with a natural wood colour is denoted as Natural. There is no surcharge for Natural wood finish.

■ **Beech** / Beech is among the best known and most commonly used deciduous trees. Beech wood is light to pinkish in colour. Beech wood texture is not very distinctive because there is not much difference between the colour of spring and summer wood (so called annual rings). The wood is hard, relatively strong, less elastic, homogeneous and dense.

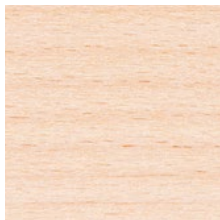
■ **Oak** / Oak has been one of the most sought-after materials for centuries. Its core is relatively wide, evenly coloured, brownish with grey or yellowish tinges. The wood is strong, hard and very durable. It is the most resilient material against

weather changes and fluctuations of wet and dry periods.

■ **Ash** / Ash is white to yellowish in colour, the white is of a cream tinge; in contrast, the core is dark brown. Its distinct annual rings create a beautiful pattern, which was used in inlays in the past. The wood is strong, hard, resilient and very elastic, therefore it is also suited for making skis, sledges, sporting equipment and bannisters, as well as furniture.

■ **American walnut** / American walnut is native to North America and was brought to Europe in the 17<sup>th</sup> century. It is of dark brown colour with lighter strips and spots of purple tinge. Thanks to its colouring, it is ideal as a substitute in furniture manufacture for more expensive dark wood. American walnut is a hard, strong but relatively light wood from the temperate zone. It is easy to process and its surface shows a beautiful gloss and colouring, especially when treated with oil.

natural beech - lacquer / oil



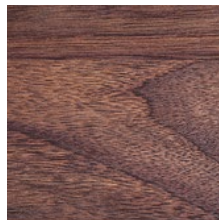
natural oak - lacquer / oil



natural ash - lacquer



natural american walnut - oil



## Surface finish

### ■ Lacquered surface (beech, oak, ash)

The standard finish for our chairs is water-based clear lacquer. UV protection in the lacquer layer slows down natural oxidation changes in the wood colouring. The surface is resilient to the accumulation of dirt and is easy to maintain. According to DIN 4102 Part 1, the transparent lacquer is classified under class B1 in combustibility tests on wooden furniture.

### ■ Oil-treated surface (beech, oak, American walnut)

The clear base of natural oils and waxes creates a matt protective film on the wood surface which does not crack and does not peel, and yet allows the wood to breathe. Minor damages on surfaces treated this way can be easily repaired. Oil layer is applied directly to the machined raw surface which is not treated by any colour before being oiled. The oil brings out the wood's natural colour. This effect can be best observed on American walnut, which we therefore recommend to finish exclusively with oil. With oil, we also finish the products from unstained oak and beech.

! To renovate oiled surfaces, we recommend a special kit, which you will find in the price list under the name Carebox and the identification code CB0004.

! How to proceed with oiling can also be found in the video tutorials on our website.

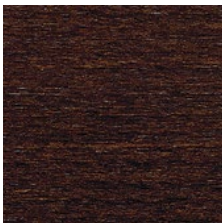
## Stains

Stains may be used to match beech, oak or ash products to the surroundings. Staining does not affect the wood structure and most colours do not suppress the wood pattern, either. On the contrary, wood as a natural material absorbs colours differently and for this reason the surface is characterised

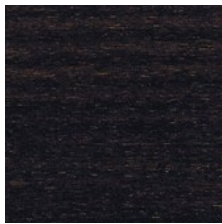
by lighter or darker places. The colour result is also affected by the initial range of colour of individual woody plants (see illustration photo). Stains are applied by either immersion or spraying. The surface is then finished only with transparent lacquer. There is no surcharge for stain colour finishes.

! The texture in the picture below shows beech. The colour finishes are for illustration purposes only.

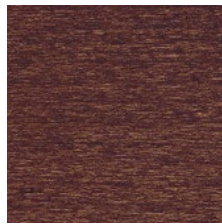
**B4 coffee**  
beech/oak/ash - lacquer



**B105 dark wenge**  
beech/oak/ash - lacquer



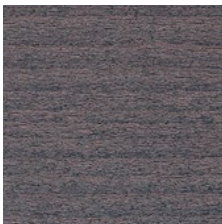
**B112 dark chocolate**  
beech/oak/ash - lacquer



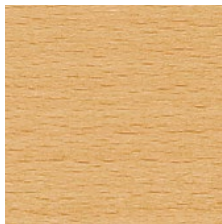
**B114 nougat**  
beech/oak/ash - lacquer



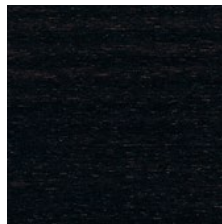
**B115 granite**  
beech/oak/ash - lacquer



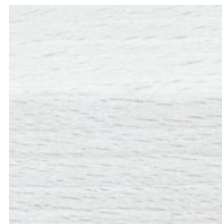
**B116 honey**  
beech/ash - lacquer



**B123 black grain**  
beech/oak/ash - lacquer



**B276 white powder**  
beech/oak/ash - lacquer



Colour difference between beech and oak in B276 - white powder



## Pigment finishes

The natural colour and texture of wood can be covered with pigment finishes, which create a compact colour layer on the surface. The final appearance of the pigment finishes on the surface is, however, influenced by the type of wood, their different porosity and colour, production technology, light refraction and individual perception of colour finishes (see illustration photo). The relief on beech plywood is so monolithic after being finished with pigment colours that it may look like a pressed plastic part. On the contrary, on the surface of oak or ash, which have more pronounced

pores in their structure, small striations remain visible even after being finished with pigment colours. Pigment finishes are subject to a surcharge as shown in the price list.

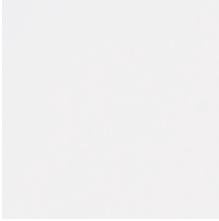
Solid wood tables and table tops cannot be finished with pigments from the Pantone, RAL and NCS colour charts. YYY coffee tables are the only exception; these can be finished in pigments. When ordering 1-10 pieces the surcharge is multiplied by three, when ordering 11-30 pieces the surcharge is doubled for the selected model.

! Please note that pigment colours from the Pantone, RAL and NCS colour charts are more susceptible to mechanical damage on the surface!

! Solid wood tables and table tops cannot be finished with pigments from the Pantone, RAL and NCS colour charts. YYY coffee tables are the only exception; these can be finished in pigments.

! Please note that prior to using a pigment chosen by a customer, we first assess whether the selected colour is suitable for our products.

**B20 white**  
RAL 9016  
beech/oak/ash



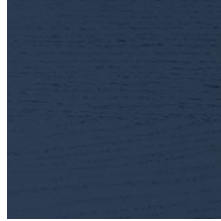
**B31 sandy beige**  
NCS S 3005 - Y20R  
beech/oak/ash



**B32 ginger yellow**  
NCS S 2060 - Y10R  
beech/oak/ash



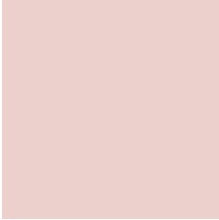
**B37 ocean blue**  
RAL 5008  
beech/oak/ash



**B38 grey shadow**  
NCS S 7502 - G  
beech/oak/ash



**B40 nude pink**  
NCS S 1010 - Y90R  
beech/oak/ash



**B41 salmon pink**  
NCS S 0570 - Y80R  
beech/oak/ash



**B42 coral orange**  
NCS S 0585 - Y80R  
beech/oak/ash



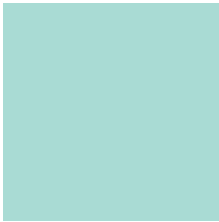
**B43 ruby red**  
NCS S 1085 - Y90R  
beech/oak/ash



**B44 creamy yellow**  
NCS S 0540 - Y  
beech/oak/ash



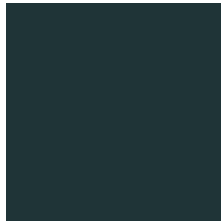
**B45 aqua green**  
NCS S 0520 - B70G  
beech/oak/ash



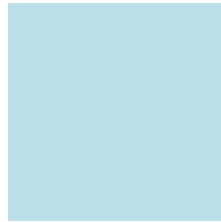
**B46 turquoise green**  
NCS S 2040 - B80G  
beech/oak/ash



**B47 pine green**  
NCS S 8010 - B30G  
beech/oak/ash



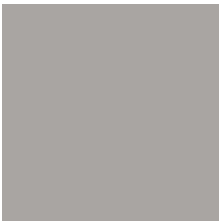
**B48 baby blue**  
NCS S 0520 - B  
beech/oak/ash



**B49 cloud grey**  
NCS S 2000 - N  
beech/oak/ash



**B50 moon grey**  
NCS S 3500 - N  
beech/oak/ash



**B52 blue berries**  
NCS S 5030 - R80B  
beech/oak/ash



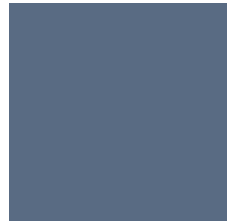
**B53 opal blue**  
NCS S 3030 - B10G  
beech/oak/ash



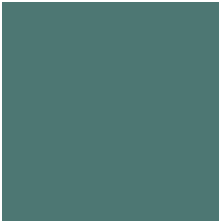
**B54 mountain fjord**  
NCS S 5030 - B10G  
beech/oak/ash



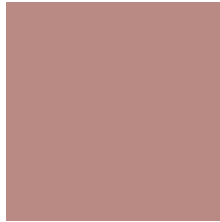
**B55 ashy blue**  
NCS S 5020 - R80B  
beech/oak/ash



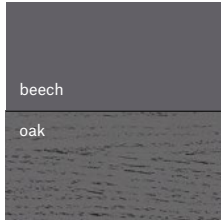
**B61 lichen green**  
NCS S 5020 - B70G  
beech/oak/ash



**B95 taupe pink**  
NCS S 3020 - Y90R  
beech/oak/ash



Colour difference between beech and oak in B38 - grey shadow



## Antique colour

Antique finish is created by using specially developed finishing materials, which are applied manually – this technology underlines the unevenness and the originality of each product. The Antique Classic finish imitates a dark stained chair surface which has been attacked not only by age, but

also by woodworm. Besides irregular, rubbed off, bleached, and hand-worn spots, the surface is also decorated with tiny holes made by the woodworm wood master. Antique colour incurs a surcharge as specified in the price list. The same surcharge applies to Antique cane weave.

**B130/A antique classic**  
beech



## Bicolour

A two-colour combination often emphasises the product's beauty and exceptional quality, as it cannot be applied to all products or be used with all colours. For technological reasons, only stain colours can be combined. However, the most popular combination is a base in colour Natural with plywood or table top in a contrasting colour finish. Bicolour is available without a surcharge and is marked by a symbol in the price list.

If you are interested in the bicolour option for a product that does not have a tick mark on the bicolour line in the price list, please contact your sales representative. We try hard to respond favourably to customer requests. Orders that include a non-standard finish incur a surcharge.

## Gradient

From a soft pale to a rich dark colour – this is what the gradient finish looks like. The layers of colour are applied gradually in uneven layers and distances. The colour gradient is further enhanced by manual sanding between the staining layers. In combination with the more prominent texture of

ash wood, this creates a unique combination for each product that cannot be repeated. The surface is finished only with transparent lacquer. We offer the gradient finishes on chairs and armchairs made of ash wood as standard colours without a surcharge.



**B501/G gradient turquoise**  
ash – lacquer



**B502/G gradient green**  
ash – lacquer



**B503/G gradient grey**  
ash – lacquer

By default, we finish most of the seating furniture in the Antique Classic without faux woodworm holes. In that case, the colour will be identified as B130/A0. Faux holes can only be applied to products in the classic bent collection (identified as TON R&D).

To be protected against damage by liquids, Antique Classic table tops are finished without woodworm holes. In this case, the colour code is B130/A0.

We apply Antique Classic only to beech wood products.

B276, B130/A – white powder, antique classic and pigment colours cannot be combined as bicolour. However, if we receive a specific specification, we will check whether the bicolour you requested for your product is technologically possible. A surcharge applies for this service..



## ■ Socks

It is possible to apply special finishing to the ends of legs of selected products from our range, which resembles "socks". We offer colour combinations with socks only in the versions shown below. The

height of the socks is 10 cm (excluding the glide). You can identify the option of application of socks according to the surcharges shown by individual products.

! Please note that chairs with pigment finishing can only be fitted with natural finish or stained socks.

! Please note that the height of the socks is influenced by the design of the product (e.g. upholstery, leg connection). According to the design, the height of the socks may be increased by up to 5 cm for technological reasons.

! Please note that chairs with natural or stain finishing can only be fitted with socks in a pigment finish.



Chair – Natural finish, socks pigment finish



Chair – pigment finish, socks Natural finish



Chair – pigment finish, socks stain finish



Chair – stain finish, socks pigment finish