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**Veneers — Terms and definitions,  
determination of physical characteristics  
and tolerances**

*Placages — Termes et définitions, détermination des caractéristiques  
physiques et tolérances*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 18775 was prepared by Technical Committee ISO/TC 89, *Wood-based panels*, Subcommittee SC 3, *Plywood*.

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# Veneers — Terms and definitions, determination of physical characteristics and tolerances

## 1 Scope

This International Standard establishes the standard terms and definitions (including those relative to features and defects), the methods for the determination of physical characteristics and the tolerances for dimensions (length, width, thickness) for wood veneers, including natural, treated and multilaminar veneers, that can be obtained by slicing, rotary cutting or sawing.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9427, *Wood-based panels — Determination of density*

ISO 16999, *Wood-based panels — Sampling and cutting of test pieces*

ISO 24294, *Round and sawn timber — Vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 24294 and the following apply.

When multiple terms are indicated, the first one is the most commonly used; the other terms are also accepted but should be avoided.

### 3.1 General terms

#### 3.1.1

##### **backed veneer**

fleeced veneer

veneer which has been backed with special paper, fabric or other material

#### 3.1.2

##### **batch**

several veneers before a selection is made based on quality, structure, colour, dimensions, figure, etc.

#### 3.1.3

##### **bleached veneer**

veneer which has been subjected to a bleaching treatment

**3.1.4**

**boule**

plot

veneers obtained from a single log by sequential slicing, laid together in sequence of cutting

**3.1.5**

**bundle**

number of sliced veneers (e.g. 16, 24 or 32) stacked in the order from which they were sliced out of the trunk or log

**3.1.6**

**clipped veneer**

trimmed veneer

veneer with at least one edge cut straight and perpendicular to the surface of the veneer

**3.1.7**

**edge joint**

joint made in the general direction of the grain between two clipped veneers placed edge to edge

**3.1.8**

**end joint**

joint made across the grain between two clipped veneers laid end to end

**3.1.9**

**face**

veneer surface which will be visible after application

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**3.1.10**

**flitch**

prismatic element, obtained by longitudinally cutting a log or trunk on the bandmill saw

**NOTE**

The plural "flitches" indicates the sequence of veneers cut from a log or part of a log.

**3.1.11**

**lay-on**

full size jointed and spliced veneer

**3.1.12**

**log run parcel**

trunk

whole series of veneers obtained from a single trunk, in the sequence of cutting

**3.1.13**

**loose side**

open side

slack side

(rotary cut veneers) side of the sheet that was in contact with the knife as the veneer was being cut, and containing cutting checks (lathe checks) due to the bending of the wood at the knife edge

**3.1.14**

**multilaminar veneer**

sliced veneer obtained from a block or a board of multilaminar wood, to be used mainly for decorative purposes

**3.1.15**

**multilaminar wood**

material made up of wood veneers, placed one on top of the other, previously glued, pressed together so as to form a block or board

**3.1.16****tape**

strips of gummed paper or cloth placed on the veneer

**3.1.17****texture**

size and general arrangement of the cells and pores in the wood

EXAMPLES Fine, medium, coarse, irregular.

**3.1.18****through-dyed veneer**

veneer through dyed in any colour

NOTE It has the same properties, as to workability and end use, as natural veneers.

**3.1.19****treated veneer**

veneer which has been treated to achieve particular physical, chemical or esthetical characteristics

EXAMPLE Ammonia-smoked oak.

**3.1.20****tight side**

(rotary cut veneers) side of the sheet that was farthest from the knife as the veneer was being cut, and containing no cutting checks (lathe checks)

**3.1.21****joint**

interface between two adjacent pieces of veneer

**3.1.22****jointed veneer**

veneer, the edge of which is trimmed in preparation for splicing

**3.1.23****spliced veneer**

veneer made of two or more jointed veneers joined edge to edge

**3.1.24****stitched joint**

spliced veneer employing glue "string" to maintain close contact at the interface

**3.1.25****veneer**

thin sheet of wood with a maximum thickness of 6 mm, rotary cut, sliced or sawn from a log, bolt or flitch

NOTE Veneers may be assembled together to achieve bigger dimensions.

**3.1.26****veneer length**

dimension of the veneer measured in a direction parallel to the grain

**3.1.27****veneer minimum length**

smallest distance measured in a direction parallel to the grain

**3.1.28****veneer thickness**

dimension of the veneer perpendicular to the face

**3.1.29**

**veneer width**

dimension of the veneer measured in a direction perpendicular to the grain

**3.2 Terms related to the production method**

See Figure A.1.

**3.2.1**

**eccentric quarter cutting**

quarter-round slicing

semi-rotary slicing

rift cutting

production method whereby veneers are obtained by fixing a quarter-log on the stay-log

NOTE This results in veneers with a striped figure or in the form of a half-cathedral.

**3.2.2**

**flat quarter slicing, tangential**

Swedish quarter slicing

production method whereby veneers are obtained when the cut is made tangentially to the direction of the growth rings and perpendicularly to the rays, and cutting commences from the heart-side of the log

**3.2.3**

**flat slicing**

back cutting

plain slicing

flat cutting

production method whereby veneers are obtained when the cut is made tangentially to the direction of the growth rings and perpendicularly to the rays, and cutting commences from the sapwood side of the log

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**3.2.4**

**half-round back cutting**

production method whereby veneers are obtained by fixing the log on the sapwood side on the stay-log

**3.2.5**

**quarter cathedral cutting**

production method whereby veneers are obtained by fixing a third- or quarter- log on the sapwood side on the stay-log

NOTE Veneers are cut from the heart-side.

**3.2.6**

**rotary cut veneer**

peeled veneer

veneer continuously cut in a lathe which rotates a log or bolt, chucked in the centre, against a knife which is fixed over the whole length of the log and set at a slight angle

**3.2.7**

**sawn veneer**

veneer produced by sawing a log or a flitch

**3.2.8**

**semi-rotary cut veneer**

veneer cut purposely in a non-continuous ribbon in a lathe which rotates a log or bolt, chucked eccentrically, against a knife which is fixed over the whole length of the log and set at a slight angle



**3.2.9****sliced veneer**

veneer produced by thrusting a log or a flitch into a slicing machine which slices off the veneers as sheets

**3.2.10****true half-round cutting**

production method whereby veneers are obtained by eccentric rotary cutting when the log is cut with a wider sweep than when it is mounted with its centre secured in the lathe

**3.2.11****true quarter slicing**

production method whereby veneers are obtained by quarter slicing a portion (1/4, 1/3) of a log, the cut being radial, perpendicular to the annual growth rings

**3.3 Terms related to visual effects and veneer matching****3.3.1****bird's eye**

figure showing many small circular or elliptical areas resembling a bird's eye, due to local sharp depressions in the annual rings (e.g. maple)

**3.3.2****blister grain**

figure in which the wood, while smooth, appears to be covered with blisters (depressed or elevated small roundish areas), due to uneven annual rings

NOTE Such a figure is only obtained on flat-sawn or rotary cut surfaces.

**3.3.3****burr veneer**

burl veneer

veneer obtained from fairly rare woody outgrowths (clusters of dormant buds and knots) appearing on trees around grafts or injuries or, rarely, forming spontaneously in few wood species

**3.3.4****component**

individual piece of veneer that is jointed to other pieces to obtain a full length and full width sheet

**3.3.5****crotch figure**

curl

figure obtained by cutting through the junction of a branch and the main stem of a tree

**3.3.6****crown figure**

cathedral figure

flame pattern figure

appearance characterized by a series of stacked and inverted "V" and/or cathedral type of earlywood and latewood patterns common in plain-sliced (flat-cut) veneer

**3.3.7****double-faced effect**

apparent colour differences due to different light refraction in book matched veneers

NOTE This occurs because in adjacent veneers the loose side and tight side faces alternate, thus reflecting the light differently.

**3.3.8**

**fiddle back figure**

irregular figure, caused by wavy and curly grain, with light coloured irregular stripes perpendicular to the direction of the grain, traditionally used to decorate the backs of violins

**3.3.9**

**finger roll figure**

wavy

wavy figure in which the waves are about the width of a finger (e.g. redwood, sequoia, etc.)

**3.3.10**

**gummed paper jointing**

jointing together two veneers edge to edge by means of a strip of gummed paper, prior to overlaying

NOTE The paper will be removed before sanding the final product.

**3.3.11**

**half crown figure**

half flame

figure corresponding to half of a cathedral figure

**3.3.12**

**matching**

assembling veneers in a sequence according to their own sequential number, or in order to obtain specific dimensions and the pattern desired

NOTE See Figure B.1.

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**3.3.12.1**

**book matching**

matching whereby alternating veneers from a flitch or log are turned over so that adjacent veneers are "opened", as two pages in a book

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**3.3.12.2**

**butt matching**

matching whereby veneers are assembled as for book matching, but the ends of the veneers are also matched

NOTE In this case, the veneers must also be flipped end to end and the ends matched.

**3.3.12.3**

**centre matching**

matching whereby an even number of veneers, not necessarily with the same width, is assembled symmetrically with respect to the central joint

**3.3.12.4**

**diamond matching**

matching whereby four veneers are cut diagonally and assembled to form a diamond

**3.3.12.5**

**four-piece matching**

matching whereby four veneers in cutting sequence are butt-matched forming a square

**3.3.12.6**

**harlequin matching**

matching whereby strips of veneers of different colours are assembled to achieve the desired dimensions

**3.3.12.7****herringbone matching**

matching whereby adjacent silver grain veneers are assembled at an angle, so that the resulting figure is reminiscent of the bones of a fish

**3.3.12.8****mismatching**

random matching

adjacent veneers are assembled at random without regard to texture, figure and/or colour

**3.3.12.9****colour matching**

matching whereby veneers are assembled by colour similarity

**3.3.12.10****reverse diamond matching**

matching whereby similar to diamond matching, but the veneers are assembled so that all grain directions run towards the middle

**3.3.12.11****running matching**

matching whereby veneers in sequence of slicing are assembled until the desired width is reached

NOTE If a portion of a veneer is left over, it becomes the start of the next sheet.

**3.3.12.12****slip matching**

boule assembling

matching whereby veneers are slipped out in sequence of slicing and assembled, all of them with the same side being exposed

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**3.3.12.13****sunburst matching**

matching whereby veneers in sequence of slicing are trimmed into pie-shaped pieces and book-matched with the points meeting at the centre

**3.3.13****moiré figure**

wavy figure resembling sea waves, due to overlapping of interlocked grain and curl (e.g. avodiré, makoré, etc.)

**3.3.14****mottle figure**

figure consisting of broken up cross markings, intermingled with stripes (sometimes appearing as a regular checkerboard pattern), giving the impression of an uneven surface, due to wavy and interlocked grain (e.g. sapele, satinwood, black bean, etc.)

**3.3.15****pommele figure**

figure in which a series of apparently uneven reflections produce a visual effect of high and bas-relief on adjacent small roundish areas, resembling apples (e.g. sapele, mahogany, bubinga, etc.)

NOTE The name derives from the French word "pomme = apple".

**3.3.16****quilted figure**

figure similar to "blister figure" but larger and with elongated and closely crowded bulges (e.g. maple, mahogany, moabi, sapele, etc.)