



R O S E B U R G

Roseburg
Hardwood Panels



Innovative **Design** Solutions



Roseburg Hardwood Panels
Delivering A World of Options

HARDWOOD PANELS

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Roseburg is your fully integrated, single source producer of hardwood panels. With over 750,000 acres of sustainably managed forestlands and manufacturing facilities, stretching from the Northwest to the Southeast, we provide the finest in decorative hardwood panels.

All our hardwood panels are produced domestically from the finest hardwood veneer and cores available in the market.

With Roseburg, you have virtually unlimited options for faces, backs, finishes and cores. From Oak to exotic Anegre, we deliver a world of options in hardwood panels.

We deliver a difference

- Mixed product shipment availability
- Integrated manufacturing facilities
- Forest management practices, certified by third-party verification
- Quality products that meet or exceed customer expectations
- Skilled & knowledgeable customer service
- Broadest product mix from one single source producer
- FSC certified core panels available (SCS-COC-000300)
- PB and MDF core panels meet or exceed EPP CPA 3-08 Specification for 100% recycled or recovered fiber content and California (CARB) Airborne Toxic Control Measure 93120.

Exotic Veneers



PS ANEGRE



QTR ANEGRE



PS RIBBON SAPELE



PS BIRD'S EYE MAPLE

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PS NATURAL BAMBOO



PS CARAMEL BAMBOO



PS JATOBA



PS TEAK



QTR TEAK



QTR ZEBRAWOOD



Roseburg recognizes that the needs of an *architect, designer and architectural millwork shop* may be different from that of a typical cabinet shop. Often higher expectations are placed on the products specified for a job. Roseburg hardwood panels are up to the challenge. Every piece of hardwood veneer is hand selected for quality and consistency prior to being laminated to the core. We use only the finest and time proven core substrates to manufacture our hardwood panels. In fact, Roseburg offers the broadest selection of "Green" certified cores available. This is the reason Roseburg is an industry leader in the hardwood panel business.

Engineered Veneers



QTR WENGE



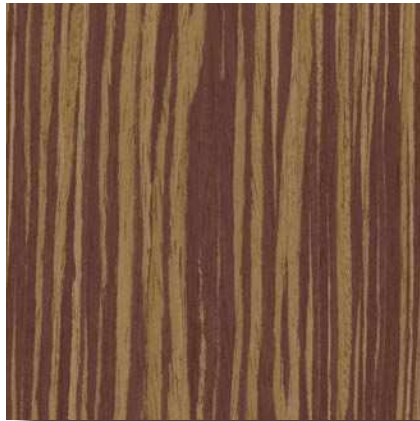
QTR ZEBRAWOOD



QTR CARAMEL BAMBOO



QTR WALNUT



QTR EBONY LIGHT



QTR TEAK

Hardwood Panels with an engineered face veneer can be used anywhere a panel with a traditional hardwood veneer is used, including retail environments, hospitality, office furniture, etc. The engineered veneer on the hardwood panel is produced by slicing thin layers from low-value trees, recombining them into multi-ply panels over undulating press plates and resliced, which results in veneers that convincingly mimic high-character species such as Birdseye Maple.



PS CHERRY



QTR CHERRY



PS WALNUT



PS TEAK



QTR NATURAL BAMBOO



QTR WHITE OAK (RIFT)



QTR MAPLE



QTR EBONY BROWN

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ROTARY NATURAL ASH



ROTARY RED BIRCH



ROTARY WHITE OAK



ROTARY WHITE ASH

Common Veneers



ROTARY NATURAL BIRCH



ROTARY WHITE BIRCH



ROTARY NATURAL MAPLE



ROTARY WHITE MAPLE



ROTARY OKOUME

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PLAIN SLICED CHERRY



PLAIN SLICED HICKORY



PLAIN SLICED RED OAK



PLAIN SLICED WALNUT

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Common Veneers



PLAIN SLICED ALDER



PLAIN SLICED
AROMATIC CEDAR



PLAIN SLICED MAHOGANY



PLAIN SLICED KNOTTY PINE



PLAIN SLICED WHITE OAK

CoreOptions



UltraBlend particleboard

Multi-layered substrate, produced using a blend of western softwoods. The combination of sanding to extremely smooth, tight and grainless surfaces on both sides, with a controlled distribution pattern of particles in the core, results in a perfect, dimensionally stable panel. This core is recommended for high-end veneer applications when routing and shaping is not required.

CFC Veneer

Combines MDF cross bands with softwood veneer innerplies. The MDF cross bands provide an ultra smooth surface to reduce telegraphing through the face, while the veneer innerplies maintain the strength and screw-holding power of a veneer core panel. This option is recommended for high-end veneers.

Fuma

Lightweight veneer core alternative. This core is produced at our Dillard, OR plant, using imported Fuma veneer, which is extremely smooth and virtually eliminates telegraphing. It can be used as a core substrate for all Roseburg Hardwood Panels.

Medium Density Fiberboard

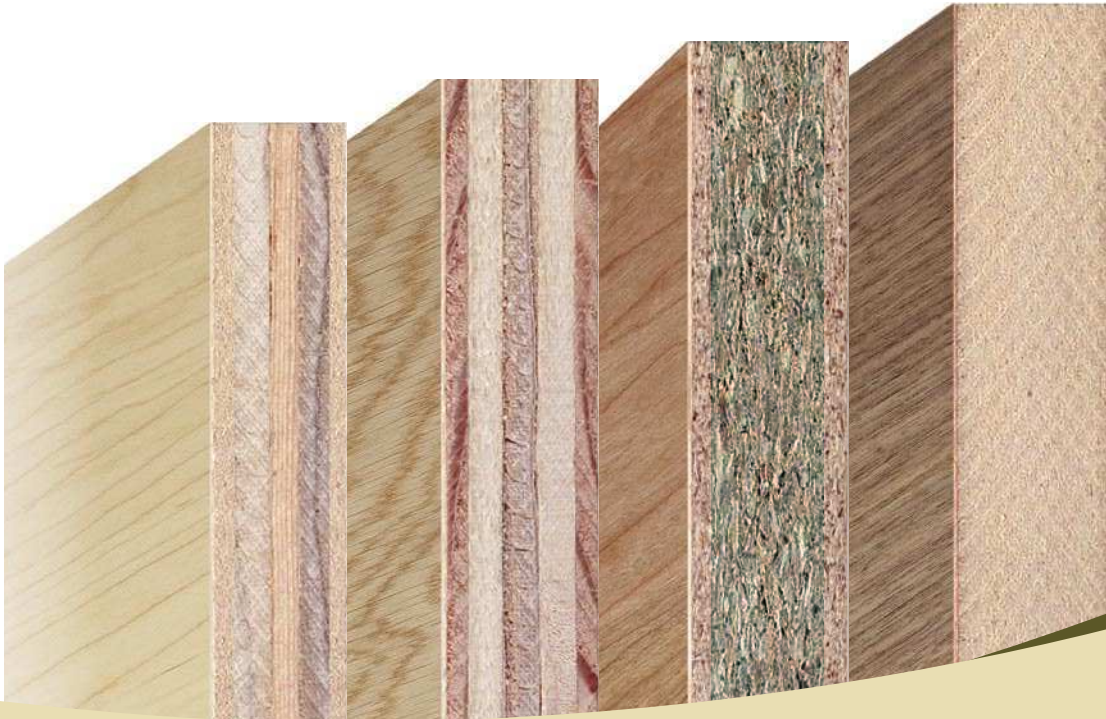
Makes for a very smooth, consistent panel. This is a great substrate for high-end veneer and for applications when routing and shaping are required.

Veneer

Constructed using innerplies composed of Western softwoods. Veneer core panels are lightweight, dimensionally stable and have excellent screw-holding capacity.

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Green Cores



Roseburg SkyPly™ Veneer and CFC veneer core hardwood panels are manufactured with no added urea formaldehyde.

- Veneer Core
- CFC Veneer Core
- FSC certified veneer core panels available
- Substitute for any hardwood panel application requiring tighter emission standards
- Formaldehyde emissions well below suggested 2008 CARB standards
- May contribute to achieving LEED credits

Roseburg SkyBlend™ core hardwood panels are manufactured with SkyBlend™ particleboard or MDF and contain no added urea formaldehyde.

- Particleboard Core
- Medium Density Fiber Core (MDF)
- EPP certified 100% pre-consumer recycled wood fiber particleboard
- No urea formaldehyde added during the manufacturing process
- Readily identifiable by its blue-tinted core
- May contribute to achieving LEED credits

California CARB Phase 1 Compliant: California approved third-party certifier TPC-1 affirms that Roseburg's Dillard, OR plant has completed and fulfilled the requirements of California (CARB) Airborne Toxic Control Measure 93120. Scope of certification includes hardwood plywood – PLY production category (CARB Phase 1).



Roseburg **HYBRIDGREEN** Contribution to LEED® Credits

LEED CATEGORY/CREDIT	INTENT	REQUIREMENTS	POSSIBLE POINTS
Materials and Resources MR Credit 4.1 Recycled Content: 10%(post+ 1/ 2 pre-consumer)	Increases the use of products that incorporate recycled content material	Sum of recycled content constitutes at least 10% of materials in the project	1 point
Materials and Resources MR Credit 4.2 Recycled Content: 20%(post+ 1/ 2 pre-consumer)	Increases the use of products that incorporate recycled content material	Sum of recycled content constitutes at least 20% of materials in the project	1 point (in addition to MR credit 4.1)
Indoor Environmental Quality EQ Credit 4.4: Low-Emitting Materials	Improves indoor air quality	Wood products used shall contain no added urea-formaldehyde resins	1 point
Materials and Resources MR 5.1 Regional Materials: 10%Extracted, Processed & Manufactured Regionally	Increases the use of materials that are extracted and manufactured within the project region	A min. of 10% of the combined value of building materials or products must be extracted, harvested, or recovered, as well as manufactured within 500 miles of the project	1 point
Materials and Resources MR 5.2 Regional Materials: 20%Extracted, Processed & Manufactured Regionally	Increases the use of materials that are extracted and manufactured within the project region	A min. of 20% of the combined value of building materials or products must be extracted, harvested, or recovered, as well as manufactured within 500 miles of the project	1 point (in addition to MR credit 5.1)
Materials and Resources MR Credit 7.0: Certified Wood FSC- Forest Stewardship Council	Encourage environmentally responsible forest management	Use a minimum of 50% wood based materials and products, which are certified in accordance with the Forest Stewardship Council's (FSC) Principles and Criteria, for wood building components	1 point

Some important points:

- There are NO LEED certified products.
- A product CAN NOT GIVE you LEED project points.
- A product CAN CONTRIBUTE TOWARD or COMPLY WITH LEED credit requirements.

Products fall into two categories:

Contribution Credits or Compliance Credits.

- Contribution Credits – are based on the total project material costs. The contribution of a product to obtain credit is evaluated against the requirements in the Material & Resources Credit Section of the applicable LEED standard. This is where our products (like SkyBlend or UltraBlend particleboard and SkyBlend or Synergite MDF) containing (either post-consumer or pre-consumer) recycled fiber can contribute toward MR Credit 4.1 and 4.2 This is also where any of our products, depending on where they are manufactured, might contribute toward MR Credit 5.1 and 5.2 which requires use of "Regional Materials". Another contribution credit that pertains to some of our products is MR Credit 7.0 which requires use of Certified Wood. This is where our FSC certified products might contribute toward credit.
- Compliance Credits – are based on a product or materials ability to meet the strict guidelines set forth in the credit requirements. Roseburg products that fit here are SkyPly and SkyBlend panels when they comply with EQ Credit 4.4 for low emitting materials which requires that a composite wood product contain no added urea-formaldehyde resins.

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Panel Options

ROSEBURG

RediPly

Hardwood Panels

We are very proud to be your single source producer. Roseburg's Redi-Ply program reflects our integration and dedication to providing quality hybrid panels to meet your needs. Redi-Ply combines our hardwood veneer faces with melamine, vinyl, or light-basis-weight-paper backs. Redi-Ply panels are available with a pre-finished UV clear topcoat that provides a smooth durable finish to the face.

Matching RediShelf shelving and Roseburg Duramine Decorative Melamine panels available.

Panel Options

BACK	CORE	OVERLAY
Duramine (TFM) Size: 4'x8' Thickness: 5/8", 3/4"	UltraBlend particleboard MDF, SkyBlend(PB & MDF)	11-white 55-hard rock maple 16-almond
Vinyl (cold-roll vinyl) Size: 4'x8', 4'x10' Thickness: 5/32" - 1"	UltraBlend particleboard MDF, Veneer, CFC Veneer, All Green Cores listed on page 12	A-98 white stipple vinyl A-96 almond A-35 hard rock maple
Light-basis-weight paper Size: 4'x8', 4'x10' Thickness: 5/32" - 1"	UltraBlend particleboard MDF, Veneer, CFC Veneer, All Green Cores listed on page 12	P-10 natural hard maple P-02 white stipple

ROSEBURG

PreFinished

Hardwood Panels

Roseburg's PreFinished panels are produced using a high performance UV cure burnishing sealer and a mar resistant UV cure topcoat, both of which are user, consumer and environmentally friendly. The sealer and topcoat are 100% solid resulting in no waste and no emissions. Topcoat is a 3mil acrylic coating that produces a low, medium or high gloss finish. Gloss level can be adjusted to meet any customer requirement.

Availability:

Thickness: 5.2mm, 1/4", 3/8", 1/2", 5/8", 3/4"

Lengths: 8' & 10'

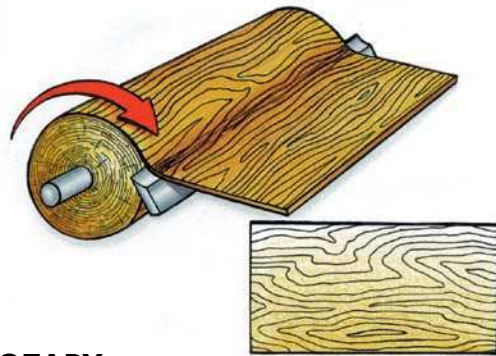
Widths: 4'

One or two sides on a variety of cores: 2 Step Veneer, MDF, Fuma, Particleboard, CFC Veneer, and Green cores.

Slicing Options

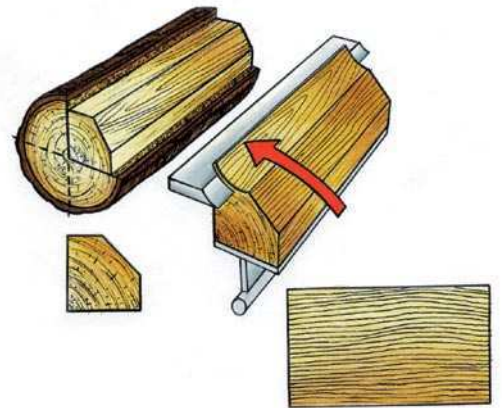
TYPES OF VENEER CUTS

Depending on the manner in which a log is cut, strikingly different visual effects can be achieved with the wood's grain and characteristics. Two logs of the same species, cut in different ways, produce distinctive, individual veneers.



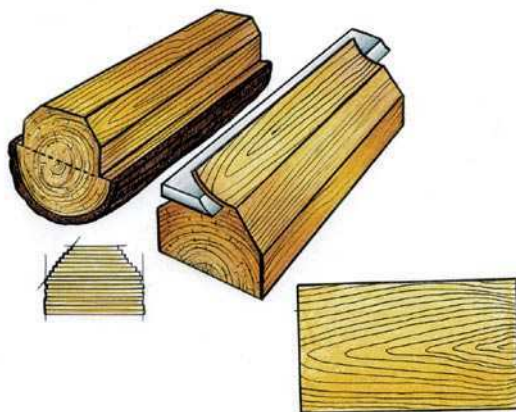
ROTARY

The entire log is cut or "peeled." It can yield full sheets of veneer with broad grain pattern and no plain or quarter-sliced appearance.



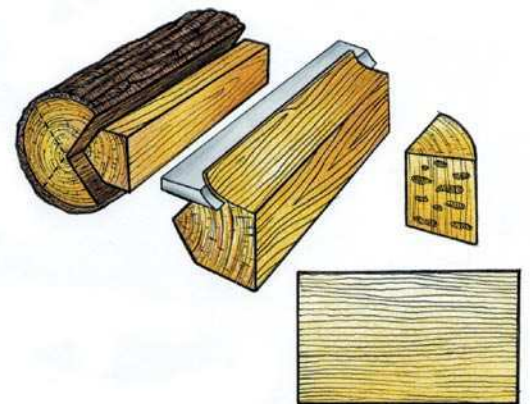
RIFT CUT

A cut angle of 15 degrees to the radius of the flitch is used to minimize the ray flake affect in oak.



PLAIN SLICING

The half log, or flitch, is mounted with the heart side flat against the flitch table of the slicer. The slicing is done parallel to a line through the center of the log to produce a distinct figure.

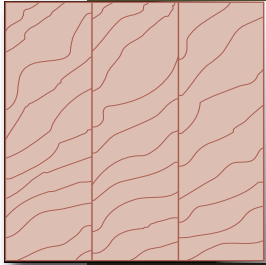


QUARTER SLICING

This method produces a series of stripes —straight in some woods, varied in others. A flake pattern is produced when slicing through medullary rays in some species, principally oak. Most species produce the same look as rift cut.

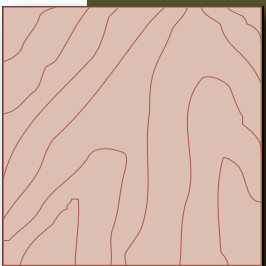
VENEER MATCHING

Natural coloration and arrangement of veneer, comprising the panel face, determine the resulting visual effect. Different matching techniques are used for specific panel applications.



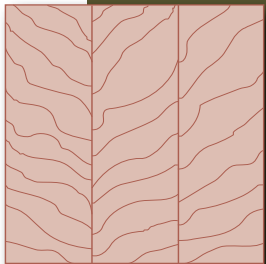
SLIP MATCH

Adjacent veneer sheets are joined side by side, same sides up, for a uniform grain pattern.



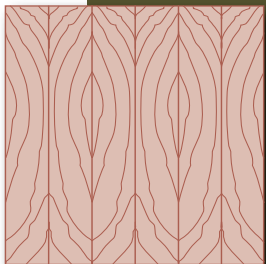
WHOLE PIECE

One single piece of veneer is used, with continuous grain characteristics running across the sheet.



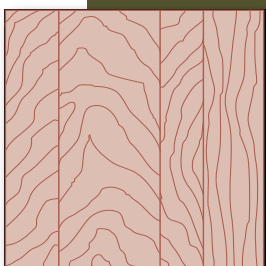
PLEASING MATCH

Veneers are matched by color or similarity, not necessarily by grain characteristics.



BOOK MATCH

Every other piece of adjacent veneer is turned over, resulting in identical, but opposing patterns.



RANDOM MATCH

Veneers intentionally do not match at the joints, providing a casual effect.

Technical Info

Lengths	8' & 10'			
Widths	4'			
Thickness	Core	Thickness	Plys	
	All veneer core panels	1/4"	3	
		3/8", 1/2"	5, 7, 9	
		5/8", 3/4"	7	
		3/4"	9 (specified)	
	All particleboard core panels	1/2" 5/8", 3/4"	3	
	All MDF core panels	5.2mm, 5/32", 1/8", 1/4" 1/2", 3/4", 1"	3	
Face	Hardwood veneer			
Back	Hardwood veneer, Vinyl, Light basis weight paper, Thermally fused melamine, Balancing backer, Glueable backer			
Core Options	Veneer	Particleboard	MDF	Green
	Western Softwood Veneer CFC Veneer Fuma (Import)	UltraBlend PB	MDF	Skyblend (NAUF) PB SkyBlend (NAUF & FSC) PB Skyblend (NAUF) MDF SkyBlend (NAUF & FSC) MDF SkyPly (NAUF) Veneer SkyPly (NAUF & FSC) Veneer SkyPly CFC (NAUF) Veneer SkyPly CFC (NAUF & FSC) Veneer
Finish Options	Natural unfinished, UV-cured clear topcoat			
Slicing Options	Rotary, Rift cut, Plain Slicing, Quarter Slicing. Slicing option is based on desired hardwood veneer. See page 15 for details.			
Veneer Matching Options	Slip, Whole Piece, Pleasing, Book, Random. Natural coloration and arrangement of veneer, comprising the panel face, determine the resulting visual effect. Different matching techniques are used for specific panel applications. See page 16 for details.			
Sanding	Finely sanded			
Fire Explosion Data	Flame Spread Rating: Class C or Class III.		Extinguishing Media: water, sand, carbon dioxide	
	Flammable Limits: LEL: N/A UEL: N/A		Auto Ignition Temp: 400-500° F	
	Flash Point: N/A			
	Unusual Fire & Explosion Hazards: Wood dust from sawing, sanding, and machining can be explosive, depending on particle size and moisture content. Airborne concentrations of 40 grams per cubic meter is often used as the LEL for wood dusts.			

Allowable Openings For Inner Ply Grades

GRADE DESCRIPTION	J	K		L
Thickness of crossroads adjacent to faces	Any Thickness	Thicker than 1/10"	1/10" and thinner	Any Thickness
Knotholes and other round, elliptical, or similar shape openings (max. diameter)	None	3/8"	3/4"	1"
Splits, gaps, and other elongated end or edge openings - each opening is visible on only one end or edge of panel (max. width)	1/8"	1/4"		1/2"



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Proper handling and storage

Between the time panels are manufactured and put into their final application, there are many opportunities for hardwood plywood panels to be damaged. The following handling and storage tips should be observed at every step along the route to ensure the panels reach their final destination unscathed.

Handling

Minimize Movement – The best way to minimize handling damage is by handling the panels as little as possible. Plan your warehousing and process flow operations to minimize the need to handle the panels.

Proper Strapping – When you do need to move panels, make sure that they are properly secured and strapped. This will minimize the chances that the units will unexpectedly shift during transport.

Dunnage – Keep the panels properly protected until they are ready for use on the job site. The proper dunnage will absorb many handling dings and nicks before they reach the panels.

Training – Properly trained employees are your best defense against damage. Make sure all employees are trained in the proper and safe use of fork trucks, pallet jacks, and other handling equipment. If your employees are careful and know how to handle panels, your panels will stay in good shape.

Storage

Proper Stacking – Proper stacking is vitally important to protecting panels. Make sure you maintain clean stacks with no protruding edges. When stacking units, keep similar lengths of similar product together and maintain proper alignment and quality of stacking sticks to avoid bending or flexing panels. The sticks should be thick enough to allow fork truck tines to pass unobstructed between units.

Temperature – Wood is a natural material and is negatively affected by extreme swings in temperature. Also, wood stored in direct sunlight may heat up enough to warp. To minimize damage, storage temperatures should be maintained between 60–90°F.

Moisture – Extreme swings in humidity and direct contact with water can both damage the appearance and performance of hardwood panels. It is extremely important to store panels in a climate controlled environment to eliminate the impacts of moisture. The storage environment's relative humidity should mimic the anticipated service environment, usually 30–55% RH.

Light – Although most wood will change color upon exposure to sunlight, the effect is more pronounced in some of the species commonly used in hardwood panels. Cherry, for example, will begin to change color within a few hours of exposure to sunlight. For that reason, panels should be neatly stacked and covered during storage.

Coverings – Roseburg's hardwood plywood is packaged in attractive unit covers that also help protect the panels from damage. Each panel is end stamped with the grade, species and standards. Special services, such as barcoding are also available upon request.

Delivery and Fabrication

Acclimation Period – Do not deliver panels to the job site until they are needed and the site is ready, but allow at least 48 hours for the panels to acclimate to the use environment before installation. Panels that aren't given enough time to acclimate on the job site prior to fabrication may warp during use.

Machining

The panel is constructed to provide the best possible machining results when sawn, routed, shaped and drilled. Proper nails, screws and other fasteners may be placed near the edge without splitting the panel.

Finishing

It is recommended that fine-grit sandpaper and sanding sealer be used prior to staining. Because hardwoods react differently to certain finishes, a test sample should be done first, to determine the desired appearance before final finishing.



Glossary

of Terms

BACK - The side reverse to the face of a panel or the poorer side of a panel in any grade of plywood calling for a face and back.

BALANCED MATCH - Two or more veneer components or leaves of equal size to make up a single face.

BALANCED PANEL - For purposes of this standard, a balanced panel is one which is free from warp that affects serviceability for its intended use.

BANDING - Portion of wood extending around one or more sides of plywood panels.

BARK POCKET - Bark around which normal wood has grown.

BOOK MATCH - Adjacent pieces of veneer from a flitch or log are opened like a book and spliced to make up the face with matching occurring at the spliced joints. The fibers of the wood, slanting in opposite directions in the adjacent sheets, create a characteristic light and dark effect when the surface is seen from an angle.

BURL, CONSPICUOUS - A swirl, twist, or distortion in the grain of the wood, which usually occurs near a knot or crotch. A conspicuous burl is associated with abrupt color variation and/or a cluster of small dark piths, caused by a cluster of adventitious buds.

BURL, BLENDING - A swirl, twist, or distortion in the grain of the wood, which usually occurs near a knot or crotch but does not contain a knot and does not contain abrupt color variation. A blending burl is detectable at 1.8m to 2.4m (6 feet to 8 feet) as a swirl or roundel.

CATHEDRAL - A grain appearance, characterized by a series of stacked and inverted "V" or cathedral type of springwood (earlywood) summerwood (latewood) patterns common in plain-sliced (flat-cut) veneer (See split heart).

CENTERS - Inner plies, whose grain direction runs parallel to that of the outer plies. Included as centers are parallel laminated plies.

CENTER MATCH - An even number of veneer components or leaves of equal size, matched with a joint in the center of the panel to achieve horizontal symmetry.

CHECKS - Small slits running parallel to grain of wood, caused chiefly by strains produced in seasoning.

COMB GRAIN - A quality of rift cut veneer with exceptionally straight grain and closely spaced growth increments, resembling the appearance of long strands of combed hair.

COMPONENT (OF FACE) - An individual piece of veneer that is jointed to other pieces to achieve a full length and width face. Terms used interchangeably with component in the context of the face are piece and leaf.

CORE - The inner part of plywood between face and back, usually veneer. Sawn lumber, particleboard, MDF, hardboard, or other material is also used as cores.

CORE, BANDED - Core that has been made with banding on one or more sides.

CROSSBANDING - Veneer used in the construction of plywood with five or more plies. Crossbands are placed at right angles to the grain of the faces and are typically placed adjacent to the face and back. Also refers to all inner layers of veneer, whose grain direction runs perpendicular to that of the outer plies and includes parallel laminated plies.

CROSS FIGURE - A series of naturally occurring figure effects, characterized by mild or dominant patterns across the grain in some faces. For example, a wash-board effect occurs in fiddle-back cross figure, and cross wrinkles occur in the mottle figure.

DECAY - The decomposition of wood substance by fungi. The incipient stage is characterized by discoloration and sometimes accompanied by a softening of the wood substance. The final or ultimate stage is characterized by the partial or complete collapse of the wood structure and the destruction of the wood substance.

DEFECT, OPEN - Checks, splits, open joints, knotholes, cracks, loose knots, wormholes, gaps, voids, or other openings interrupting the smooth continuity of the wood surface.

DELAMINATION - Separation of plies or layers of wood or other material through failure of the adhesive bond.

DISCOLORATIONS - Stains in wood substances. Common veneer stains are sap stains, blue stains, stains produced by chemical action caused by the iron in the cutting knife coming in contact with the tannic acid of the wood, and those resulting from exposure of natural wood extractives to oxygen and light, to chemical action of vat treatments or the adhesive components, and/or to the surface finish.

DOZE (SYNONYMOUS WITH DOTE) - A form of incipient decay, characterized by a dull and lifeless appearance of the wood, accompanied by a loss of strength and softening of the wood substance.

FACE - The better side of any plywood panel in which the outer plies are of different veneer grades. Also, either side of a panel in which there is no difference in the veneer grade of the outer plies.

FIGURE - The pattern produced in a wood surface by annual growth rings, rays, knots, deviations from natural grain such as interlocked, curly and wavy grain, and irregular coloration.

FINGER JOINT - A series of fingers machined on the ends of two pieces of wood to be joined, which mesh together and are held firmly in position with an adhesive.

FLAKE - See fleck, ray.

FLAT-CUT - See plain-sliced.

FLECK, RAY - Portion of a ray as it appears on the quartered or rift-cut surface. Fleck is often a dominant appearance feature in oak.

FLITCH - A complete bundle of veneer sheets laid together in sequence as they are cut from a given log or section of a log.

GAP - Open slits in the inner plies or improperly joined veneers.

GRAIN - The direction, size, arrangement, and appearance of the fibers in wood or veneer.

GUM POCKETS - Well-defined openings between rings of annual growth, containing gum or evidence of prior gum accumulations.

GUM SPOTS AND STREAKS - Gum or resinous material or color spots and streaks, caused by prior resin accumulations sometimes found on panel surfaces.

HAIRLINE - A thin, perceptible line showing at the joint of two pieces of wood.

HALF-ROUND - A method of veneer cutting similar to rotary cutting, except that the piece being cut is secured to a "stay log," a device that permits the cutting of the log on a wider sweep than when mounted with its center secured in the lathe, producing rotary sliced veneer. A type of half-round cutting is used to achieve plain-sliced or flat-cut veneer.

HARDWOOD - General term used to designate lumber or veneer, produced from temperate zone deciduous or tropical broad-leaved trees in contrast with softwood, which is produced from trees which are usually needle bearing or coniferous. The term does not infer hardness in its physical sense.

HEARTWOOD - The nonactive or dormant center of a tree generally distinguishable from the outer portion (sapwood) by its darker color.

INCONSPICUOUS - Barely detectable with the naked eye at a distance of 1.8m to 2.4m (6 feet to 8 feet) (See blending).

INDUSTRIAL PANELS - Generally unfinished multi-ply products, which consist of various combinations of hardwood or decorative veneer faces and inner ply materials (i.e., veneer, particleboard, MDF, and hardboard). These are generally cut-to-size and stock panels, used in making cabinets, furniture, laminated block flooring, and panels for other non-structural applications.

INNER PLYS - Plies other than face or back plies in a panel construction. Crossbands and centers are classed as inner plies (See core).

JOINT - The common edge between two adjacent materials in the same plane.

JOINT, EDGE - Joint running parallel to the grain of the wood.

JOINT, OPEN - Joint in which two adjacent pieces of veneer in the same plane do not fit tightly together.

KNOT - Cross section of tree branch or limb with grain usually running at right angles to that of the piece of wood in which it occurs.

KNOT, OPEN - Opening produced when a portion of the wood substance of a knot has dropped out or where cross checks have occurred to produce an opening.

KNOTHOLES - Openings produced when knots drop from the wood in which they were embedded.

KNOTS, BLENDING PIN - Sound knots 6.4 mm (1/4 inch) or less that generally do not contain dark centers. Blending pin knots are barely detectable at a distance of 1.8m to 2.4m (6 feet to 8 feet), do not detract from the overall appearance of the panel, and are not prohibited from appearing in all grades.

KNOTS, CONSPICUOUS PIN - Sound knots 6.4 mm (1/4 inch) or less in diameter containing dark centers.

KNOTS, SOUND, TIGHT - Knots that are solid across their face and fixed by growth to retain their place.

KNOTS, SPIKE - Knots cut from 0° to 45° to the long axis of limbs.

LAP - A condition where one piece of veneer in the same ply overlaps another piece.

LAYER - A single veneer ply or two or more plies laminated with grain direction parallel (See ply). Two or more plies, laminated with grain direction parallel, is a parallel laminated layer.

LOOSE SIDE - In knife-cut veneer, the side of the sheet that was in contact with the knife as the veneer was being cut, and containing cutting checks (lathe checks) because of the bending of the wood at the knife edge.



MEDIUM DENSITY FIBERBOARD (MDF) - A panel or core product, manufactured from wood fibers, combined with a synthetic resin or other bonding system. MDF is manufactured with a minimum density of 497 kg/m³ (31 lb/cu.ft.) up to 881 kg/m³ (55 lb/cu.ft.) by the application of heat and pressure, a process in which the fiber bond is substantially created by the added adhesive system.

OCCASIONAL - A small number of characteristics that are arranged somewhat diversely within the panel face.

PARTICLEBOARD - A panel or core product composed of small particles of wood and wood fiber that are bonded together with synthetic resin adhesives in the presence of heat and pressure.

PLAIN-SLICED (FLAT-CUT) - Veneer, sliced parallel to the pith of the log and approximately tangent to the growth rings to achieve flat-cut veneer. Plain-sliced veneer is cut, using either a horizontal or vertical slicing machine or by the half-round method, using a rotary lathe.

PLEASING MATCHED - A face containing components which provides a pleasing overall appearance. The grain of the various components need not be matched at the joints. Sharp color contrasts at the joints of the components are not permitted.

PLY - A single sheet of veneer or several strips laid with adjoining edges that may or may not be glued, which forms one veneer lamina in a glued panel (See layer). In some constructions, a ply is used to refer to other wood components such as particleboard or MDF.

PLYWOOD, HARDWOOD - A panel composed of an assembly of layers or plies of veneer or veneers in combination with lumber core, particleboard core, MDF core, hardboard core, or of special core material, joined with an adhesive. Except for special constructions, the grain of alternate plies is at right angles, and the face veneer is a hardwood species.

QUARTER-SLICED (QUARTER-CUT) - A straight grain appearance achieved through the process of quarter-slicing or through the use of veneer cut in any fashion that produces a straight grain effect. Cut is radial to the pith to the extent that ray fleck is produced, and the amount of fleck is not limited.

RANDOM MATCHED (MISMATCHED) - A panel having the face made up of specially selected dissimilar (in color and grain) veneer strips of the same species and generally V-grooved at the joints between strips to simulate lumber planking.

RAY FLECK - See fleck.

RECONSTITUTED WOOD - A generic term for panel products made with strands, wafers, particles, or fibers of wood. Individual products include hardboard, insulation board, particleboard, MDF, and oriented strand board (OSB)/waferboard. Particleboard and MDF normally use urea-formaldehyde resin as the binding agent. OSB/waferboard normally uses phenol-formaldehyde as the binding agent. Most hardboard and insulation board use the lignin from the processed wood as the binding agent. Most dry-process hardboards contain phenol-formaldehyde to increase bonding strength.

REPAIRS - A patch, shim, or filler material inserted and/or glued into veneer or a panel to achieve a sound surface.

REPAIRS, BLENDING - Wood or filler insertions similar in color to adjacent wood allowing color to blend well.

RIFT-CUT - A straight grain appearance achieved through the process of cutting at a slight angle to the radial on the half-round stay log or through the use of veneer cut in any fashion that produces a straight grain with minimal ray fleck.

ROTARY-CUT - Veneer, produced by centering the log in a lathe and turning it against a broad cutting knife which is set into the log at a slight angle.

ROUGH CUT - Irregular shaped areas of generally uneven corrugation on the surface of veneer, differing from the surrounding smooth veneer and occurring as the veneer is cut by the lathe or slicer.

RUNNING MATCH - The panel face is made from components running through the flitch consecutively. Any portion of a component left over from a face is used as the beginning component or leaf in starting the next panel.

RUPTURED GRAIN - A break or breaks in the grain or between springwood and summerwood, caused or aggravated by excessive pressure on the wood by seasoning, manufacturing, or natural processes. Ruptured grain appears as a single or series of distinct separations in the wood such as when springwood is crushed, leaving the summerwood to separate in one or more growth increments.

SAPWOOD - The living wood of lighter color occurring in the outer portion of a tree. Sometimes referred to as sap.

SHAKE - A separation or rupture along the grain of wood in which the greater part occurs between the rings of annual growth (See ruptured grain).

SHARP CONTRASTS - For purposes of this standard, this term means that face veneer of lighter than average color shall not be joined at the edges with veneer of darker than average color and that two adjacent pieces of veneer shall not be widely dissimilar in grain, figure, and other natural character markings.

SLICED - Veneer produced by thrusting a log or sawed flitch into a slicing machine, which shears off the veneer in sheets.

SLIGHT - Visible on observation, but does not interfere with the overall aesthetic appearance with consideration of the applicable grade of the panel.

SLIP MATCHED - A sheet from a flitch is slid across the sheet beneath and, without turning, spliced at the joints (See Figure 1 for illustration).

SMOOTH, TIGHT CUT - Veneer cut to minimize lathe checks.

SOFTWOOD - General term used to describe lumber or veneer produced from needle and/or cone bearing trees (See hardwood).

SOLID CORE - Plywood panels in which all inner plies are grade J or better. Splits up to 3.2 mm (1/8 inch) are allowed.

SPECIES (COMMERCIAL SPECIES GROUPS)

- Species generally grouped for marketing convenience and identified with a single commercial name. (See ASTM D 1165, Standard Nomenclature of Domestic Hardwoods and Softwoods, for commercial practice in the United States and Canada.)

SPECIFIC GRAVITY - The ratio of the weight of a certain volume of a substance to the weight of an equal volume of water, the temperature of which is 4°C (39.2°F).

SPLIT HEART - A method of achieving an inverted "V" or cathedral type of springwood (earlywood)/summerwood (latewood), plain-sliced (flat-cut) figure by joining two face components of similar color and grain. A cathedral type figure must be achieved by a single component in "AA" grade. The split heart method is allowed in grades "A" through "E". Each half of a split heart shall be subject to the minimum component width requirements for grade "A" and "B" faces.

SPLITS - Separations of wood fiber running parallel to the grain.

STREAKS, MINERAL - Natural discolorations of the wood substance.

TIGHT SIDE - In knife-cut veneer, the side of the sheet that was farthest from the knife as the sheet was being cut and contains no cutting checks (lathe checks).

VENEER - A thin sheet of wood, rotary cut, sliced, or sawed from a log, bolt, or flitch.

WOOD FAILURE (PERCENTAGE) - The area of wood fiber adhering at the glue line following completion of the specified shear test. Determination is by visual examination. The value is expressed as an estimated percentage of the wood area remaining, adhered to the fractured surface in the test area.

WORMHOLES - Holes resulting from infestation of worms.

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