



Glossary of Terms

HARDWOOD PLYWOOD

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 washboard 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 PLIES - 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 6.4mm (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 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.