

# Hardwood Plywood and Veneer Association

**HPVA Grading For Hardwood Plywood:**

Characteristics vary according to species, but there is a basic grading structure which is followed for all species described in the current Voluntary Standard. The most uniform color and grain is at the top of the scale for face grade.

Grade	Sub Grade	Applications & Descriptions
Face Grade	AA	The best quality face grade for high end uses such as architectural paneling, doors and cabinets, case goods, and quality furniture.
	A	Where AA is not required but excellent appearance is very important as in cabinets and furniture.
	B	Where the natural characteristics and appearance of the species are desirable.
	C,D, and E	Provide sound surfaces but allow unlimited color variation; grades C, D, and E, respectively, allow repairs in increasing size ranges. Applications: where surface will be hidden or a more natural appearance is desired.
	Specialty	Appearance characteristics are not standardized and are subject to agreement between the individual buyer and seller, as in factory finished wall paneling. Usually, effects such as those created by wormy chestnut, bird's eye maple, and English brown oak are considered specialty grade.
Back Grade	1,2,3,and 4	Back grades are designed by numbers: 1,2,3, and 4. Requirements of grade 1 are most restrictive, with grade 2, 3, and 4 being progressively less restrictive. Grade 1 and 2 provide sound surfaces with all openings in the veneer repaired except for vertical worm holes not larger than 1.6mm(1/16' . Grades 3 and 4 permit some open defects; however, grade 3 can be obtained with repaired splits, joints, bark pockets, laps, and knotholes to achieve a sound surface if specified by the buyer. Grade 4 permits knotholes up to 102mm (4' ,in diameter and open splits and joints limited by width and length.
Veneer Inner Ply Grade	J , K , L, and M	Four inner ply grades are described with the following letter designations: J,K L, and M. Grade J is the most restrictive, allowing minimal size openings. Grades K, L, and M are progressively less restrictive. The least restrictive grade (M) is usually reserved for piles not adjacent to faces and allows round and similar shaped openings not to exceed 63.5mm (2 1/2' and elongated openings up to 25.4mm(1' as visible on the edges or ends of panels.

**Following are the accepted face grades as established by the HPVA.**

**GRADE AA** -The veneer shall be smooth, tight cut and full length. When the face consists of more than one veneer component or piece, the edges shall appear parallel and be edge matched as described for the various species in 200-S-9. Rotary cut faces may be whole piece or multipiece with edge joints tight and no sharp color contrasts at the joints. Species specified for natural color will allow color contrasts, but must be book matched or conform to the type of matching specified. The components of plain sliced (flat cut) faces will be book matched, unless otherwise specified, and arranged, at the option of the woodworker, with a running, balanced, or center match, unless otherwise specified. Plain sliced faces will consist of two or more components and rotary faces will consist of one or more components with no component less than 152 mm (6") wide except for outside components which may be less than 152 mm (6") to allow for certain types matching or panel edge trim loss. No plain sliced components will have a split heart. No full quarter cut is allowed in plain sliced faces. The width of any single component in quartercut rift cut or comb grain faces shall not be less than 76 mm (3") except for outside components which may be less than 76 mm (3") to allow for matching and edge trimming.

Hardwood veneer faces from species not covered in 200-S-9 may contain small burls and occasional pin knots not to exceed 6 mm (1/4") in total diameter and 3 mm (1/8") in diameter of the dark pin knot centers. Color streaks or spots: two repaired, tapering hairline splits not to exceed 1.5 mm (1/16") by 152 mm (6"); and small inconspicuous repairs are also permitted. Unfilled wormholes. rough cut veneer. knots (other than pin knots), shake, and doze and other forms of decay will not be permitted.

**GRADE A** - The veneer shall be smooth, tight cut and full length. When the face consists of more than one veneer component or piece, the edges shall appear parallel and be edge matched as described for the various species in 200-S-9. Rotary cut faces may be whole piece or multipiece with tight edgejoints; however, no sharp color contrasts are permitted at the joints and the face will provide a good general appearance. Species specified for natural color will allow color contrasts, but must be book matched or conform to the type of matching specified. The components of plain sliced (flat cut) faces will be book matched, unless otherwise specified, and arranged, at the option of the woodworker, with a running, balanced, or center match, unless otherwise specified. Plain sliced faces will consist of two or more components and rotary faces will consist of one or more components, with no component less than 127 mm (5") wide except for outside components which may be less than 127 mm (5") to allow for certain types matching or panel edge trim loss. Split heart is permitted if manufactured cathedral is achieved. No full quarter cut is allowed in plain sliced faces. The width of any single component in quarter cut, rift cut or comb grain faces shall not be less than 76 mm (3") except for outside components which may be less than 76 mm (3") to allow for matching and edge trimming. In some species sapwood is permitted: in other species it may be permitted by agreement between buyer and seller.

Hardwood veneer faces from species not covered in 200-S-9 may contain small burls and occasional pin knots not to exceed 6 mm (1/4") in total diameter and 3 mm (1/8") in diameter of the dark pin knot centers. Color streaks or spots, two repaired, tapering hairline splits not to exceed 1.5 mm (1/16") by 152 mm (6"); and small inconspicuous repairs are also permitted. Unfilled wormholes. rough cut veneer, knots (other than pin knots), shake, and doze and other forms of decay will not be permitted.

**GRADE B** - The veneer shall be smooth, tight cut and full length. Slip or book matched veneers are available if specified by the buyer. If not specified, multipiece faces will be pleasingly matched. Sharp color contrasts at the joints are not permitted, and natural variations in grain and color will be blended to the extent possible. Species specified for natural color will allow color contrasts, but must be pleasingly matched or conform to the type of matching specified. Plain sliced faces will consist of two or more components with no component less than 76 mm (3") wide and rotary faces will consist of one or more components with no component less than 102 mm (4"). Outside components may be less than 76 mm (3") for plain sliced faces and 102 mm (4") for rotary faces to allow for certain types of matching or panel edge trim loss. Some full quartercut is permitted in plain sliced faces. For some species unlimited sapwood is allowed, and in other species a percentage of sapwood is allowed.

Hardwood veneer faces from species not covered in Section 200 may contain small burls and occasional pin knots not to exceed 6 mm (1/4") in total diameter and 3 mm (1/8") in diameter of the dark pin knot centers. Color streaks or spots, two repaired, tapering hairline splits not to exceed 3 mm (1/8") by 203 mm (8"); and small inconspicuous repairs are also permitted. Unfilled wormholes, rough cut veneer, knots (other than pin knots), shake, and doze and other forms of decay will not be permitted.

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