

Technical- Plywood Grade

Plywood grades are determined by a veneer quality on the face and back of each panel. The first letter designates quality of face veneer (best side), while the second letter denotes the surface quality of the back of the panel. The letter "X" indicates the panel was manufactured with scrap wood as the center plies, not "exterior" as is commonly thought. The A-D rating is only good for construction (softwood) plywood, not for hardwood plywoods such as oak or maple.

"A": Highest grade quality available. Can be defect free or contain small knots, providing they are replaced with wooden plugs (the fillers having a "boat" or an "American football" shape) or repaired with synthetic patch. This grade may contain occasional surface splits that are repaired with synthetic filler. The surface is always sanded and provides for smooth paintable face quality.

"**B**": Second highest quality veneer grade. Normally a by-product of downgraded "A" quality veneer. Solid surface, but may contain small diameter knots and narrow surface splits. Normally repaired with wooden plugs or synthetic filler. The surface is normally sanded smooth.

"C": Considered to be a lower end face quality, but a reasonable choice for general construction purposes. May contain tight knots up to 1½ inches diameter, some open knot holes, some face splits, and discoloration. Some manufactures may repair the defects with synthetic filler. Panels are typically not sanded.

"D": Considered to be the lowest quality veneer and often used for the back surface for construction grade panels. Allows for several knots, large and small, as well as open knots up to 2½ inches diameter. Open knots, splits, and discoloration are acceptable. "D" grade veneers are neither repaired nor sanded. This grade is not recommended for permanent exposure to weather elements.

Plywood Bonding Types: In addition to the plywood grades, there are four common plywood bonding types. The difference is in the glues that are used to bind the plies, or layers of the plywood.



Interior Plywood: Plywoods for interior use only are made from various hardwood and softwood species, and can be used only in interior applications such as wall sheathing, furniture (where exposure to moisture is limited), cabinetry and the like. Interior plywood is available in most grades, as well as a number of hardwood species such as birch, oak and cherry.

Exterior Plywood: The most common type of plywood, readily available at home centers. The glues used in exterior plywoods are much more resistant to moisture than interior plywoods. Once again, nearly all grades are available, with A-C, B-C and CDX the most common. Numerous hardwood species are also available in exterior varieties.

Marine Plywood: When moisture resistance is a priority, look into marine plywood. This type uses the best adhesives and is manufactured to the highest standards. It also is most commonly graded as A-A, with two top grade faces, but is limited in the hardwood choices that are practical for use in marine settings.

Structural Plywood: When the appearance of the face is of lesser concern than the strength and stability of the material, structural plywood will typically be the choice. The resins used to adhere the plies are designed for extra strength to avoid separating of the layers. Structural plywood is seldom found in a grade higher than C-D. It is commonly used in concrete forms on construction sites.