

## PLYWOOD GRADE GUIDE

Plywood is graded and classified by the American Plywood Association, P.O. Box 2277, Tacoma, WA. 98401.

### TYPE

Exterior type bonded with 100% waterproof glue for outdoor applications and installations subject to continuing moist conditions or extremely high humidity (in excess of 18%.)

Interior type bonded with moisture resistant glue for applications not exposed to the weather or excessive humidity. Interior type plywood is available with interior or exterior type glue.

### GROUP

Wood from more than 70 species are classified into 5 groups on the basis of stiffness and strength.

The stiffest and strongest woods are classified as Group 1.

The American Plywood Association grade-trademark refers to the weakest species used in face and back, except that decorative and sanded panels 3/8" thick, or less, which are identified by the face species group.

Species in all groups are listed in U. S. Product Standard PS1.

### APPEARANCE GRADES

- N: Smooth surface "natural finish." Select all heartwood or sapwood, free of open defects. Allows not more than 6 repairs, wood only per 4 x 8 panel, made parallel to grain and well matched for grain and color.
- A: Smooth, paintable. Not more than 18 neatly made repairs, boat, sled or router type, and parallel to grain, permitted. May be used for natural finish in less demanding applications.
- B: Solid surface. Shims, circular repair plugs and tight knots to 1" across grain and some minor splits permitted.
- C Plugged: Improved C veneer with splits limited to 1/8" width and knotholes and borer holes limited to 1/4" x 1/2". Synthetic repairs and some broken grain permitted.
- C: Tight knots to 1-1/2", knotholes to 1" across grain and some to 1-1/2" if total width of knots and knotholes is within specified limits. Synthetic or wood repairs, discoloration, sanding defects that do not impair strength, stitching and limited splits are permitted.
- D: Knots and knotholes to 2-1/2" width across grain, limited splits and stitching permitted. Limited to interior grades of plywood.

## ENGINEERING GRADES

Designed for demanding construction applications where nail bearing, shear, compression, tension, and similar structural properties are of maximum importance and appearance is secondary to strength.

C-D Exterior and C-D Interior with Exterior Glue are generally used for sheathing. They will withstand considerable exposure to outdoor moisture conditions during construction but they should not be used as a substitute for exterior plywood.

Structural I C-D is limited to Group 1 species throughout. Structural II C-D permits Groups 1, 2, or 3 species. Both grades are bonded with exterior glue.

## IDENTIFICATION INDEX

The basic unsanded grades of plywood, C-D sheathing, C-C Exterior, and Structural I and II C-C and C-D, carry an identification index of two numbers in the American Plywood Association grade-trademark, for example 24/0 or 32/16. The left hand number refers to the maximum recommended spacing of roof framing in inches when the panel is used as roof sheathing. The right hand number refers to the maximum recommended spacing of floor framing when the panel is used for subflooring. The maximum recommended spacings are predicated upon the placement of face grain across supports with the panel continuous across two or more spans.

Indexed spans must be verified for compliance with Code requirements.

## CLASS

Class I and Class II apply only to Plyform grade or concrete form plywood and indicates species mix permitted.

Plyform Class I is limited to Group 1 faces, Group 1 or 2 crossbands, and Groups 1, 2, 3, or 4 center ply.

Plyform Class II is limited to Group 1 or 2 faces and Groups 1, 2, 3, and 4 inner plies.

## COMMON USES

C-D INT-APA: wall and roof sheathing, subflooring and industrial uses. Most commonly available with exterior glue.

STRUCTURAL I, C-D INT-APA and STRUCTURAL II, C-D INT-APA: structural diaphragms, box beams, gusset plates, stressed skin panels and containers.

UNDERLAYMENT INT-APA: underlayment or combined subfloor-underlayment under resilient flooring and carpeting.

C-D PLUGGED INT-APA: built-ins, wall and ceiling tile backing. Do not use for underlayment.

2.4.1 INT-APA: combination subfloor-underlayment for resilient flooring, carpeting and wood strip flooring.

C-C EXT-APA: subflooring and roof decking.

B-B PLYFORM CLASS I and CLASS II EXT-APA: concrete forms. Sand both sides and mill-oiled unless otherwise specified.