



4595 W. Jacquelyn Avenue, Fresno, CA 93722 • Tel:559-275-9620 • Fax:559-275-9629

SELECTION AND INSTALLATION OF PLYWOOD FOR APPLICATION OF PERMADRI'S WALKABLE DECK SYSTEM

The following are standard recommendations. Greater requirements may be specified for individual applications. The application of PermaDri's walkable deck system to plywood is recommended only when these requirements are met.

1. PLYWOOD GRADES

A. Plywood shall conform to U.S. Product Standard PS 1-95 and shall carry the grade trademark of The Engineered Wood Association - APA. Only APA BC EXT or APA AC EXT grades are acceptable.

Underlayment grade plywood (APA AC EXT Underlayment) with solid, plugged cross bands under the face veneer is recommended for commercial installations.

B. **Unacceptable Grades**, including APA C-D EXT, APA C-C EXT, Exposure 1 markings, oriented strand board (OSB), waferboard and Lauan or Mahogany plywood are **not** suitable substrates for liquid-applied coating systems. This is due to poor dimensional stability, weak glue lines which allow buckling or lifting of the top ply, and excessive splintered, leafed and raised surface grain.

2. INSTALLATION

A. Plywood panel edges shall be supported on 2" (5.08 cm) lumber blocking or primary framing. Tongue and groove edging in replaces blocking only for panels 1-1/8" (2.86 cm) or greater in thickness. Two layers of plywood may be installed with offset or staggered joints as an alternative to lumber blocking. With this method, structural framing and subfloor is completed using any appropriate structural panel. The structural panel is then overlaid with plywood grade per Part 1, Section A.

B. Plywood shall be continuous across two or more spans with face grain across supports and long dimension perpendicular to supports. Joints shall be level and smooth.

C. Thickness of plywood and spans shall meet the following minimums except where local building codes require greater thickness.

*1/2" (1.27 cm) for planked or solid substrates only

5/8" (1.59 cm) for supports 16" (41 cm) OC

3/4" (1.9 cm) for supports 24" (61 cm) OC

1-1/8" (2.86 cm) for supports 48" (121.92 cm) OC

* Plywood installed over planked substrates must be installed with no joints coinciding with plank joints.



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3. SLOPE (Disregard on Wall Systems)

The deck shall be sloped a nominal $\frac{1}{4}$ " (.64 cm) to the foot and constructed as to drain freely, preferably to a drain or a gutter. When drainage is to the edge of the deck, a metal drip edge is recommended to avoid water running down the fascia. PermaDri coatings cannot be used to provide slope that is a function of the structural design. Lack of adequate slope may lead to leaks at thresholds, puddles, surface staining and coating deterioration for which the PermaDri does not assume responsibility.

4. VENTILATION

PermaDri coatings provide an effective vapor retarder. Good design requires that adequate ventilation be provided for all enclosed space. One-inch (2.54 cm) headspace is required between insulation and the underside of the plywood panel. Insulation shall have a vapor barrier installed on the warm side of the insulation. Ventilation the full length of the soffits will help reduce sound transmission. Refer to local code requirements before beginning work.

5. NAILING

Use non-rusting screws with countersunk heads, hot dipped galvanized nails, or deformed shank nails only. Nails shall be 8d for $\frac{3}{4}$ " (1.9 cm) plywood or less and 8d for $\frac{7}{8}$ " (2.22 cm) or more. Space fasteners 6" (15.24 cm) OC along panel edges and 12" (30.48 cm) OC along intermediate supports, except 6" (15.24 cm) OC along all supports when span is 48" (121.92 cm). Space 12" (30.48 cm) OC in all directions when installing $\frac{1}{2}$ " (1.27 cm) on solid substrates. Drive nails flush without indenting the plywood. Automatic nailers that indent the surface shall not be used.

6. PROTECTION

A. The general contractor shall protect the plywood prior to application of coating. It shall be turned over to the coating applicator clean, dry, and free from paint, plaster, asphalt, oil, dirt, or other surface contaminants. In wet weather, consideration can be given to precoating the panels with one full base coat prior to installation to assure dry panels. Failure to adequately protect the plywood from water will promote surface checking and raise face grain, obtaining the same results as inferior grades of plywood. (See Section 1, Plywood Grades). In addition, damp plywood and other surface contaminants can interfere with adhesion, cause blisters and cause staining of PermaDri coatings.

B. The long term performance of an elastomeric fluid applied deck system is dependent on the integrity of the plywood by reference in published specifications. The use of less than minimum standard plywood can lead to problems. Any such problems are considered to be the result of non-compliance with published specifications and are not the responsibility of PermaDri, Inc.

NOTE: Data for the above recommendations was compiled with information supplied by The Engineered Wood Association-(APA), Tacoma, WA, (253) 565-6600 or www.apawood.org.