



Working with Durapalm® Plywood

Receipt and Preparation:

All products should be inspected upon arrival to confirm the condition of the material, that there is no freight damage and that the product conforms to the order. Palm is a natural material and variation in color and grain should be expected. For this reason, panels should be inspected and then paired for best aesthetic effect. If panels are to be stored prior to working, leave the panels in their protective packaging and stack horizontally, never vertically. Prior to fabrication, sheets should be checked for moisture. If the panels need to be further acclimated, un-bag and stack horizontally with spacers to allow proper air circulation to occur. Consider the relative humidity (RH) of the fabrication facility as well as the final installation site to establish the appropriate moisture content of the panel prior to fabrication and finishing. Doing so will ensure the product will perform as optimally.

Construction of Durapalm Panels: (Two variations)

The most common construction type is our 3-ply design. We have employed this design for almost 30 years and has been very reliable. We start with a perpendicular lumber core that is constructed of either bamboo or palm strips that are set on edge and laminated together into a single piece core. The face plies are constructed in a similar fashion but then sliced thin to create the face veneer. Our product is unique in that the face-ply, 1/8" (3mm) is thicker than other architectural grade panel veneers offering both the aesthetic element as well as a structural value to the panel construction.

Our other construction type is the Linear Lamination approach where we manufacture long thin palm strips, set them on edge and laminate them together creating a single-ply thickness from many individual palm strips. It is single-ply in the sense that it does not have a multiply-ply construction with a perpendicular core and two face plies.

General Rules of Usage:

The three-ply construction, like all cross-ply constructions, are designed for greater stability. The three-ply construction is also the most popular for its versatility of application. Uses for this panel include, cabinetry, shelving, store fixtures, furniture and wall panel systems.

The linear laminated products will work much like a solid stock lumber product. These sheets are best ripped down to narrower widths and used for furniture stock, exposed frame cabinet door construction or construction systems that allow the material to be well fastened and supported. As these sheets do not have a cross-ply core this product is not recommend for European-style single-piece cabinet doors.

Moisture and Humidity:

Durapalm panels are manufactured to an average moisture content of 6 to 9%. However, due to environmental conditions, the product you receive can vary. It is recommended that before working a panel, that a moisture reading be taken. If acclimation is necessary this should be performed prior to working the material and should take into consideration the environment and the application at the final installation location.

Durapalm panels, like wood products, will expand and contract with changes in relative humidity (RH). The greater the seasonal change, the greater the potential for movement.

For best performance, a temperature range of 45–75 degrees Fahrenheit, and a relative humidity of 35–65%, should be maintained throughout the year. In areas with a wide seasonal variation in RH and temperature, every effort should be taken to adhere to the recommend ranges. Exceeding these ranges can result in unwanted movement including checking, cracking and warping in some cases.

For further information on relative humidity, moisture and wood, please refer to the AWI Architectural Woodwork Standards – First Edition, October 1, 2009, appendix B, page 453. Note AWI recommends an RH range of 25-55% for wood products where Smith & Fong recommends a range of 35% to 65% for Durapalm.

Fabricating with Durapalm:**Tools:**

Durapalm panels can be worked like a wood product using the same techniques and equipment including hand and shop tools as well as CNC machinery. If you are working the material in a way that you are uncertain with, first test the method to confirm that the method and the material are compatible. If you have questions, please contact our technical support department.

Fasteners and Adhesives:

Durapalm panels work well with most methods of fastening. This includes, joinery, screws, brad nailing and clamp and glue methods. Please note however that due to Durapalm's greater hardness and less give that screws should be pre-drilled and that hammer and nail should be avoided. Most common wood glues are acceptable for use with Durapalm.

Sanding:

Durapalm panels can be sanded like a wood product using the same materials and equipment including standard sandpaper, hand sanders and shop or industrial sanding equipment.

Finishing:

Durapalm can be finished using conventional methods and materials that include hand-rubbed, spray, brush or UV finish line systems. Finish systems that employ heat to cure a finish such as an infra-red heat box system should be avoided. Extreme heat curing can cause the face ply to check. Most standard wood finishes work well. When applying a wax finish it is recommended to first apply a hard-drying , penetrating seal coat.

Additional Notes

Durapalm is designed for interior use only. Durapalm is not a structurally rated sheet good. Smith & Fong cannot take responsibility for inappropriate applications or environmental conditions beyond our control. If you have further questions about a product or specific application, please feel free to contact us for further information at info@durapalm.com or our toll free number 866 835-9859.