

# SOLVING COMMON FINISH PROBLEMS IN VENEERED WOOD PANELS

by Curt Alt

Getting a decent finish on an \$8 do-it-yourself picture frame isn't easy. On \$700,000 worth of fixtures in a project, the stress increases exponentially. Finishing is one of the most visible and important stages of production, but few understand what it takes to properly finish wood products. Hours are spent agonizing over what species of wood to use, getting consensus on color and figure specifications, and making sure that the joints are tight, but relatively little thought is given to finishing. Often, as a project runs behind schedule, the final finishing is short-changed. Following are a few pointers to minimize finishing claims.

## STOPPING PROBLEMS BEFORE THEY OCCUR

Ninety-five percent of finishing problems can be avoided by properly preparing the panel and workspace before any finish meets the wood. This involves everything from the handling of the panels from the moment they are received to the HVAC status on the final job site. It is the finisher's responsibility to ensure that the product and environment are ready for finishing.

Panels need to be handled and stored correctly throughout the production process. Until panels are needed, neatly stack them in a clean, climate-controlled environment protected from light, dirt, and dust. Have employees use clean gloves when handling panels to minimize transmission of dirt, perspiration, and other contaminants. Everything from

the brand of shampoo employees use to the grease on their fingers after eating potato chips can cause finish problems.

When moving panels, don't drag one across another. Ensure that all machinery operating near panels or used to move panels is in perfect working order. Faulty equipment not only can cause obvious physical damage to panels, but also can lead to insidious problems. Suppose a fork truck in the warehouse has a pinhole in one of its hydraulic lines. Even if that truck never touches the panels, aerosolized hydraulic fluid can settle on the panels' surface, and the problem would only show up when the finish is applied to the completed fixture.

Consider the end-use climate and environment. Try to match the moisture content of the panels to the conditions they will see in final use. Ideally, don't send the wood to the project site until the HVAC system is functioning and the site is climate-controlled, and after you send it, give the wood at least 48 hours to acclimate to the use environment before installation.

Immediately before finishing, place each panel in a horizontal position under good lighting for a thorough visual inspection; address any obvious imperfections. Then sand the entire panel surface based on the specific needs of the piece (species, product use, finish system to be used, etc.). Any product left 24 hours after sanding must be re-sanded.

Ensure that the finishing area is clean and appropriately set

up, and use properly functioning finishing equipment that is appropriate for the product and finishing system. The finisher must be familiar with the finishing equipment, the finishing systems, and the characteristics of the piece being finished. A failure or disconnect in any of these areas can create an unacceptable final finish.

## ADDRESSING SPECIFIC ISSUES

Veneered wood panels such as hardwood plywood present unique finishing challenges. Here are solutions to some common finishing issues.

**The barber pole effect.** In book-matched panels, every other veneer component is turned over so that adjacent veneer components lie open like the pages of a book. The alternating faces exhibit different characteristics due to the sliced veneer manufacturing process and the microscopic anatomical differences in the wood. Those differences cause the alternating veneer leaves to accept stain differently, creating the potential for alternating light/dark components across the panel face.

To minimize the effect, properly sand and seal the face of the panel during the finishing process. A pre-sealer will even out the different surfaces across the panel face and allow them to accept stain more uniformly. Even so, when book-matched panels are specified, give the client a finished sample exhibiting the barber pole effect and require a signed statement that the client understands the effect and the potential ramifications of the choice. Although the effect can be minimized through proper finishing techniques, clients must understand the relationship between their choices and the

final product and you need that understanding in writing.

**Splice lines.** During the face manufacturing process, veneer components are joined along the edge to create the face of the panel. This creates a glue seam between every veneer component. Occasionally, a panel will exhibit noticeable splice lines. The most important step in eliminating splice lines is proper sanding prior to finishing. If you are unsure whether a piece will exhibit splice lines, wipe it with a small amount of thinner to highlight potential problems. Go over any splice lines visible after finishing with a touch-up kit, blending each line with the rest of the panel.

**Blotchy cherry.** Cherry has a tendency to exhibit blotchiness as a result of natural figure in the wood. The natural figure areas in the wood accept stain differently than the rest of the wood, magnifying the wood's natural characteristics. To minimize the effect, properly sand and pre-seal the wood before finishing.

## ACHIEVING THE RIGHT LOOK

Proper finishing is an art and a science, but it need not be a mystery. If you understand the steps that must be followed, consider the unique requirements of each piece, and take your time, you'll be rewarded with finished pieces that look as good as you envisioned. ■

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