

Plywood: The Choices You Make

Several weeks ago, Drew and I were building a plywood cabinet to house the computers and other electronics we use in our webcasts. Drew had marked a cut-out for a ventilation fan and was making a plunge cut with a saber saw when suddenly sparks began to fly. After several puzzling hours, we finally extracted the problem – a box cutter blade imbedded deep between the plies. Had we hit this with a table saw blade, the saw might have flung it at us. At the very least, we would have ruined our saw blade.

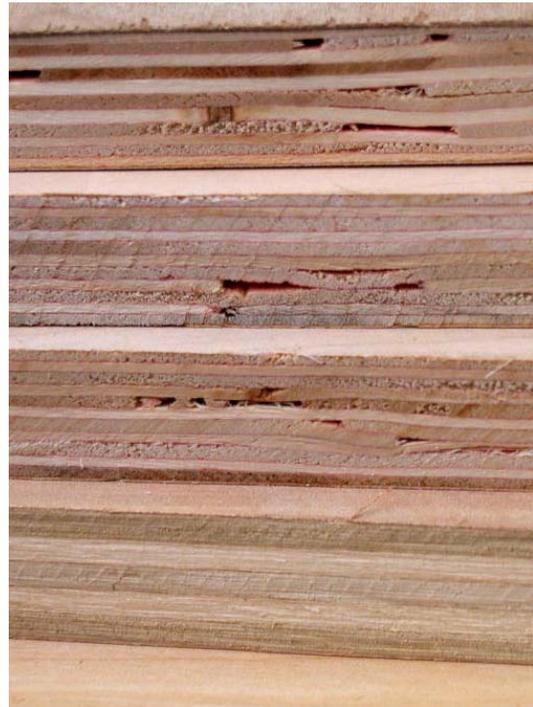
We bought this plywood from Lowes which used to sell a decent poplar-core cabinet-grade plywood manufactured by Georgia-Pacific. In recent years, however, the quality has dropped precipitously. They now offer something made by an anonymous Chinese manufacturer with razor-thin veneers and an indeterminate core – for the same price as before. And the same is true of many other home centers. This inferior stuff is everywhere; since 2002 Chinese plywood imports have grown well over 1000% and the good stuff is getting harder and harder to find.

To say that this Chinese import is inferior to the domestic hardwood plywoods available previously doesn't even begin to describe the gap in quality. The veneer is too thin to do a proper sanding; don't even think about sanding out a blemish. The



Above: A little surprise hidden between the plies of a piece of Chinese plywood.

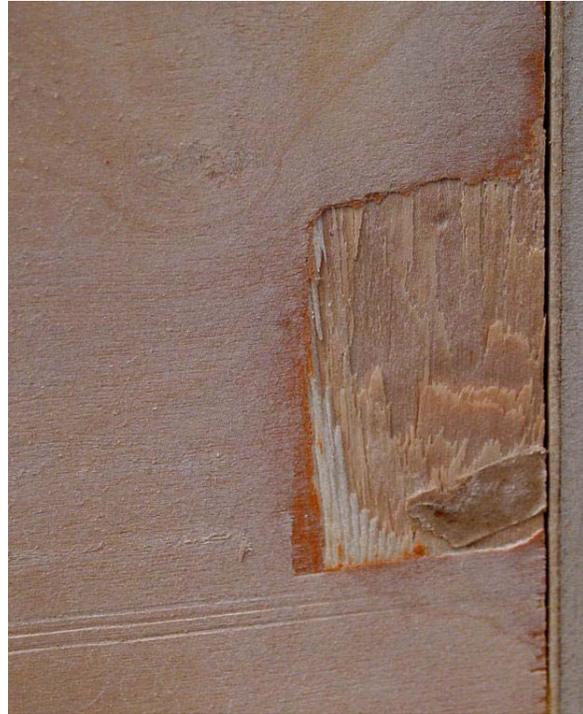
Below: Uneven plies, overlapping layers, and collapsed voids in the single sheet of plywood we used to make the Clamp Caddy. And this is the norm! At the very bottom is plywood sold by the same retailer for the same price just two years ago.



cores are riddled with voids and overlapping layers. The wood is not properly dried; the plywood warps and bows within hours after it is removed from its stack. In the plywood parts used to make the Clamp Caddy, we saw bows of an inch or more over a 24-inch length – and this is typical!

The glue is not evenly spread nor is it properly cured. Frequently, the stock splits along a lamination when we drive a screw or brad, even if we drill a pilot hole. Tear-out and feathering is almost impossible to control. Sometimes a chunk of face veneer pulls away with nothing more than masking tape.

Often this plywood doesn't even come up to the dimensional standards set by the American Plywood Association for



Above: This piece of veneer peeled away when we removed a bit of tape. The plies beneath were not properly laminated.

Below: Don't even think about truing up a joint that's a whisker off or sanding away an imperfection. The veneer isn't thick enough for even a cursory sanding with any but the finest of sandpaper.



imported (metric) stock. The 19mm sheet that we bought to make the Clamp Caddy was nearly a millimeter shy in thickness and a full 3 millimeters shy in width. If this is typical, then the manufacturers are saving enough wood to make a full sheet with every 19.2 sheets!

And then there are the objects between plies. Since we discovered the box cutter blade, we saw a second piece of metal in the edge of a sheet on a stack in a home center. How long will it be before we are prowling the lumberyards with a metal detector?

And there are other deficiencies of Chinese plywood that have made headlines. In Indiana, a warehouse operator refused shipments because this plywood had poisoned the air in his facility with formaldehyde gas. In the trailers that FEMA sent to Louisiana in the wake of the Katrina disaster 90% of those tested had unacceptable levels of formaldehyde, probably due to improperly cured glue in the Chinese plywood of which they were made. In Oregon, Senator Ron Wyden conducted a "field hearing" that substantiated unfair trade practices – particularly dumping and disregard of environmental concerns – of the Chinese plywood industry. In Europe, the Timber Trade Federation has presented the European Union with evidence that a significant amount of Chinese plywood is manufactured from materials obtained by illegal logging in protected or endangered forests.

Despite how this sounds, I don't intend this as an indictment of the Chinese plywood industry. People of any nationality will manufacture crap when there is a market for crap. The people who are feeding us this crap are the corporate directors and buyers for home centers and other lumber retail outlets that push it. Each of these businesses has a warm fuzzy saying like, "You can do it; we can help." Just how helpful are they being when they sell plywood sheet goods that don't come close to meeting minimum industry standards?

And how much do they care about you as a customer? Our world is too complex for us to be experts on everything that pertains to an endeavor as broad as woodworking; sometimes we have no choice but to trust suppliers and salesmen. But instead of being trustworthy, the businesses that sell this stuff *knowing its deficiencies and dangers* take advantage of your inexperience. Indeed, they seem to be counting on it. Why else would they expect you to choose a building material that might ruin the health of your family if used in sufficient quantities?

Finally what respect do they have for you as a craftsman? Our reasons for becoming woodworkers are many and varied, but I can safely say the one belief we all share is that the experience of building something with our own hands is rewarding and enriching. Just how rewarding is that experience when you have to fight with materials that become more misshapen than the solid wood they are supposed to replace? Or that disintegrate when you use common fasteners? Or that require that you remove and dispose of your hard work after a short time because it is poisoning your home?

The next time you purchase plywood, think like the craftsman you are. As a craftsman, you are already something of a loose cannon in this culture. Your values are sand in the gears of an economy that has turned uniformity, disposability, and obsolescence into virtues. You dream of leaving something of unique beauty and utility behind to inspire those who come after. Remember that good craftsmanship starts with good materials, otherwise it won't last however proficient your skills may be. Finding a trustworthy retailer and paying ten dollars more for a sheet of quality plywood is a bargain. Especially when it makes the difference between worthwhile or not worth a damn, between done right or not quite, between leaving a legacy or simply leaving.

With all good wishes,



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