

What's the difference between marine plywood and regular plywood?

Here's an interesting answer I found on a blog.
Brad



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WHAT A GREAT QUESTION!

Daniel,

The bottom (no pun intended) line is that there really is (and is not) a difference - well... not if you know what to look for. . .

I am 62 and over my lifetime, I have built 20 (something) boats, all using wood as a structural base, and then either epoxied or fiber-glassed over. After my first (serious) live a-board size vessel I began asking the same question. . . And here is what I discovered...

In 1924 Chris-Craft began manufacturing "standard" boats (we would call that a "production" boat today). Prior to that, the company had already become the largest boat manufacturer in the world. So, needless to say, lumber mills were eager to get his business. As a result, Chris-Craft was extremely "picky" about the wood he would accept from the mills. As his team would go to the mills and pick only the top quality wood for use in their boats. The lumber mills in turn, began calling (and marking) this wood "Chris-Craft quality". Later, as more production boat manufacturers entered the market, the term "Chris-Craft quality" was changed to "Marine Grade".

In fact however, (as you look into Chris-Craft history) what their "team" was doing, was simply going to the mills, and looking over all the wood (including plywood) and choosing only the very best. Which of course, was the wood with the fewest knots, bends, and gaps.

If willing, and you have the time, you can do the same at your local lumber yard. In fact, if you go to a lumber mill (not lumber yard, and certainly not places like Lowes or

Builders Supply) the "mill" staff will tell you that the first runs with the best quality is marked as "Marine Grade" and in fact, fewer and fewer mills even bother anymore.

When buying plywood at your local supplier (Lowe's, Home Builders, etc.) surely you have noticed that there are a number of different grades. The normal grading system uses the letters A, B, C & D, where A is the best quality, with virtually no blemishes and very well sanded. Grade D typically contains up to the maximum number of blemishes allowed.

The letter grades are in pairs, where one letter refers to the "better" side, and the other letter to the back side. As such, a sheet of A-A plywood will be very well finished on both sides, and A-C will be finished on the face and rough sanded on the back. They also (by the way) use the same exact glue for exterior grade plywood as they do Marine Grade plywood.

I (for 20 years) have been using A-A, A-B, and A-C exterior plywood (not treated, just exterior) on all my live aboard vessels and have never had one problem in structural integrity. However... the key factor here is using "boat epoxy" to totally laminate and encapsulate all your wood.

This newer high-tech "Boat resin and epoxy" is really the key to success with any wooden boat. Once encapsulated - it makes your wood (and therefore your boat) totally impervious to rot, worms, insects, air, and moisture. It indeed prevents decay, splits, and cracks from normal wear and tear as well as weather. (You can read much more on this at the link below.)

So, to answer your question: You need really good exterior grade wood, A-A, A-B, or A-C depending on the finish you want on both sides. In addition to that, you will want to laminate and encapsulate your wood (all of it - plywood, skeg, stem, side battens, seats, etc.) in boat epoxy. Then, you will need to either paint it, or fiberglass it. (Note: if you laminate all your wood with boat epoxy, you do not need to fiberglass it - the wood (or boat) will last just as long. Fiber-glassing a small boat does little good - it however is great for "stiffness" and less on going maintenance to longer, larger vessels that sit in the water months at a time or all year long. For a small boat, I would not bother. (My favorite dinghy (12'), which I have kept through 3 live a-board size boats now, is not fiber-glassed, and when cleaned up - still is and looks as good as new.)

So, check out the link under "source"... there, you can learn a lot about boat epoxy and how to use it. Believe me - I have no idea of what it was "before sliced bread" - but this stuff (for a boat builder) is absolutely the best thing since sliced bread.

Happy & Safe Boating,
John
<http://boatwrights.org>