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RE: Painted MDF doors vs Painted Maple

- Posted by [live_wire_oak](#) ([My Page](#)) on

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Real wood, even the much more stable composites like plywood and MDF, swell with moisture and release that moisture when the air dries out. That will leave minute cracks at any joints. Today's latex enamel paints are much more flexible than the old oils of yesteryear, so the cracking won't be as apparent, but it will still occur.

"Real wood" is a term bandied about by wood snobs--not that there's anything wrong with that. :) But, realistically, cabinets haven't been constructed of all solid wood panels since plywood was invented. Solid wood panels are the most unstable form of wood that exists. Plywood was a great leap forward in furniture construction. As was MDF. Technically, MDF is just as much "real wood" as is plywood if not more so because it's able to be much denser--To have more wood per cubic inch than plywood. They are both made of cross grain wood, it's just the plywood uses layers of cross grain veneers while the MDF uses tiny wood particles where the fibers lock together like wool does to make felt. Both can have issues with moisture if exposed, with the unprotected MDF swelling and the plywood delaminating

If you want a painted cabinet with zero cracks anywhere, get thermofoil instead. You're not really wanting the natural characteristics of wood. You want plastic. Thermofoil will give you the look that you desire. Thermofoil wraps come in many many different colors today, and they are much more durable--and attractive--than yesterday's thermofoil. Just look at Martha Stewart's cabinets. No paint there. All high tech European thermofoil that most would be hard pressed to tell wasn't paint.

Solid MDF that mimics a stile and rail construction will be the next most stable. It will not have any real joints to move as it would be a solid piece. The downside to that is that you aren't able to achieve sharp definition at the corners, so it always looks a bit "off". It won't really save you much in costs over thermofoil though if you have it hand painted instead of sprayed. However, hand painting instead of spraying can help with the perceived "plasticity" look, as can hand applying a slight glaze over a sprayed coat. That will also be an upcharge.

Multipart MDF with an actual free floating inner panel and separate stiles and rails will be the next most stable when it comes to cracks. It's plenty strong enough and durable enough for most situations. Just like the solid MDF, if it's hand painted instead of sprayed, it's a much more realistic look because of the multiple parts and you will not be able to visually tell the difference between it and solid wood if hand painted. If it's

sprayed, it tends to look a bit "too smooth" to the experts. The average person will not be able to see nor will they care.

Next in line in stability comes wood rails and stiles and a MDF center panel. This helps a bit with the cracking between the panel and the frames, as that is often the most apparent spot, especially if the doors were painted after assembly which is very common. The spot where the stiles and rails meet have the wood grain going in different directions, so you will still get cracking at that spot, much more than a MDF frame. As I said, with the new latex paints, it's less apparent than with the old oil paints. Hand painting with the minor errors that entails will also help it to achieve the less than perfect natural look.

The most prone to hygroscopic behavior is solid wood--which can be a bit misleading. Most "solid wood" recessed panel doors are not really solid wood. They are plywood panels with wood frames very much behaving like the solid wood with MDF panels I explained above. There is zero advantage of a plywood over MDF for the center panel if you are using wood frames. The MDF is probably cheaper for the same look.

"Solid" raised panel doors (or solid reverse recessed panel doors) are the most prone to potential cracking. The panels are not "solid" in that they are created out of a single piece of wood. That would expand and contract horribly! The panels are constructed of several solid pieces laminated together and then machined with a profile before being placed into the stiles and rails. In addition to all of the usual suspect spots for cracking, these add the potential of cracking occurring between the laminated wood strips. They are the most authentic construction for very old homes, as plywood and MDF did not exist 150 years ago, but they will also give you the most authentic look. That means the potential of hairline cracks pretty much everywhere.

All in all, the less processed product that the cabinets are made of, the more "defects" it will have. The more man made and processed a product is, the more "perfect" it becomes, with little variation in construction or appearance. More "natural looking" is a polite way to say "has natural defects that would not occur in a man made product". Some people want something expensive to look "shiny and new" always and those are the people who have little tolerance for the variations found in nature. Those people are the ones that should look to thermofoil to give them their desired "maintenance free and new" look. Some want their new kitchens to immediately look as though they've been there for years---with the natural patina of time built in. Most of us are in between, and we usually have our budget interjecting it's own constraints on our aesthetics.

Those are your choices, and I hope I've explained each of them well enough as to their advantages and disadvantages. If you have any further questions, I'll be happy to try to answer those