

Learn the Vocabulary of Cabinet Doors

This article discusses key terminology and factoids common to cabinetry, in particular cabinet doors and drawer fronts. We'll discuss the terms that a consumer needs to know to make educated purchasing decisions.

Door Types:

1-piece (Slab) Doors

There are essentially two categories of wood doors that are used today on most cabinetry, though there are several variations on each and a couple of niche door styles that don't neatly fit into either category. The easier category to define is a 1-piece slab which is essentially a single piece of wood with no ornamentation other than perhaps a detail along the outside edges. In actuality, most slab doors are made of several pieces of wood glued and joined together to provide stability, though all the wood grain is going in the same direction. Solid wood slab doors will probably warp or twist over time unless they are supported, usually by horizontal batten strips that are glued and screwed across the back. Edgebanded plywood slab doors (made of $\frac{3}{4}$ " thick plywood with a matching veneer edgeband glued on to cover the rough plywood edges) have become popular alternatives for contemporary cabinets.

5-piece (Rail, Stile, Panel) Doors

Most doors, however, are in the 5-piece category. The 5 pieces are the top, the bottom, the left side, the right side and the center panel. The horizontal pieces, the top and bottom, are called rails. The vertical pieces, left and right, are called stiles. (Why "stiles" and not "styles"? It's a tradition handed down by the premier tradition of Amish and Mennonite craftsmen that has been carried on by most fine craftsmen to this day.) The rails and stiles combined make up the frame.

Unfortunately, there is some confusion caused by these terms. Traditionally styled cabinets also have frames (or face-frames) made up of rails and stiles. Always make sure you're clear whether you're talking about the cabinet face or the door when using these terms.

Common Cabinet Door Construction Joints:

There are many different ways to theoretically join a rail and stile together to form a corner of a door (or face frame). Dowels and biscuits can sometimes be used when making cabinet frames because they have the cabinet box to provide extra support. However, these are not the best option for doors.

The most sturdy connection between stiles and rails for doors is called a cope-and-stick (or mortise-and-tenon) joint. With this connection, a slot (known as a cope or mortise) is routed into the area of the stile that meets the rail and a tab (stick or tenon) is routed out of the end of the rail. The tab is glued and inserted into the slot. Most cabinetmakers will also insert tiny pins from the back of the door into the joint to hold it more firmly in place.

The downside to this type of joint is that it doesn't allow for some of the more decorative, shaped frames that can be very attractive. On these frames, the rails and stiles are processed through a machine called a molder or shaper to create ridges, grooves and beads that can really look stunning. This has to be done before the door is constructed.

Because of this shaping, the rails and stiles won't fit together in the cope-and-stick configuration. The only option is a mitered joint: both the rail and stile are cut at a 45-degree angle so that the beads and grooves align perfectly. Now, a lesser-skilled craftsman would be left with the option of simply gluing or inserting a flat biscuit with the glue to hold the pieces together. With use, and with the natural expansion and contraction of wood, this solution won't hold up. Today's top cabinetmakers instead use special ridged splines (along with extra strong glue) to hold the pieces together. Even so, mitered joints are more likely to develop seams if they are left in an environment where humidity is allowed to change significantly. This can be a concern for painted doors, in particular, so keep this in mind when shopping. (If you have a climate-controlled home with good air conditioning, it will rarely result in an issue.)

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