

Kitchen & Bath Vision's "Cabinetry 101" – What Does It All Mean?

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Before embarking on a kitchen remodel, it's good to become more familiar with cabinetry lingo and understand some of the differentiating features so that you don't feel overwhelmed and can ask educated questions of your Designer. Since cabinetry can represent 30-50% of the cost of a remodel, it's important to understand where your investment is going and make sure it's what you want.

CABINERY CUSTOMIZATION LEVELS

Let's start here – most of what you will see advertised is "semi-custom" cabinetry but what does that mean? There are a few levels of cabinetry available to consumers and the construction trade, starting from the most economical and going up from there:

- **RTA** Cabinetry (Ready To Assemble) – these cabinets arrive from the manufacturer or big box store packed FLAT and are assembled by your contractor at your jobsite
- **STOCK** Cabinetry – these manufacturers offer a limited number of styles and select 3" increment sizes of cabinetry; if your design calls for a cabinet that is not one of those sizes, the next smaller size will be used along with fillers.
- **SEMI-CUSTOM** Cabinetry – this is by far the largest category whereby cabinet companies offer some ability to customize cabinets. Some brands will offer limited customization while others will offer (almost) unlimited customization – at additional costs, of course.
- **CUSTOM** Cabinetry – these are either traditional local cabinet makers who build everything exactly to your specifications or larger manufacturers that essentially can build anything a designer can draw. If you decide you would like to run an inlaid brass detail on the edge of every door, they can do it.

TYPES OF CABINET CONSTRUCTION

At the highest level of distinction, there are two types of cabinet construction, **Frameless** and **Framed**.

A **Frameless** cabinet (sometimes also called Full Access) is a European style of design and has a more simple construction. The cabinet consists of the box (two sides, a back, top and bottom) itself and then the door is hinged to the side of the box. The door covers most of the box and only 1/16"-1/8" of each side of the box is visible from the front when the door is closed.

A **Framed** cabinet is a more American style of design and includes all the same components but there is also a front frame that sits behind the closed door and covers the edges of the box. It looks like a picture frame and is typically 1-1/2" wide and made of the same material and finishing as the cabinet door.

Although the size of the box (and hence the storage capacity) of framed and frameless cabinets is the same, a framed cabinet has a more restricted access due to the additional 1-1/2" lost to the frame. So if your 10"

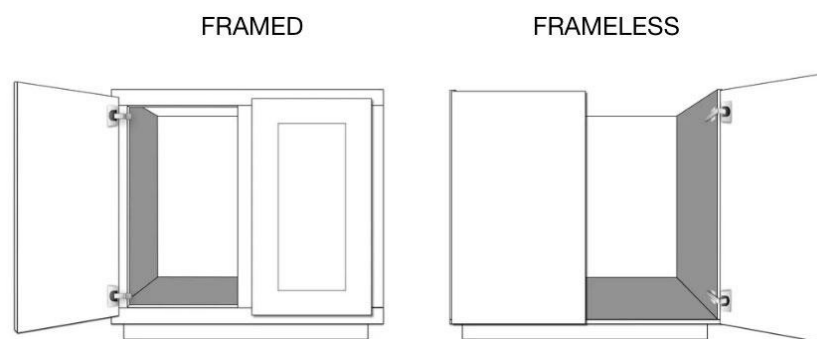


plate needed to fit in a 12" wall cabinet, it would but when sliding it into a frameless cabinet you could slide it in flat whereas in a framed cabinet you would need to tilt the plate and then place it flat.

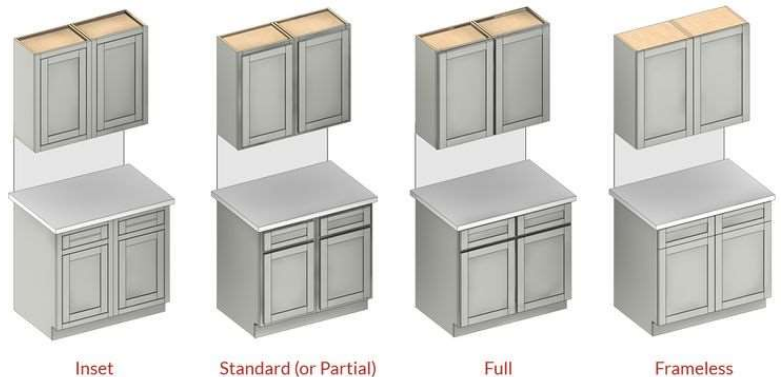
When those two types of cabinets are broken down further, there are really four distinct styles of cabinetry, shown in this image (left to right) as:

Framed – Inset

Framed – Standard/Partial Overlay

Framed – Full Overlay

Frameless (Euro)



The overwhelming majority of kitchens currently being installed in the United States are full overlay, either frameless or framed, because the current trend is to see more of the door and less of the box.

Standard/Partial overlay doors are historically found in mid-century homes but are still used by many homebuilders since a smaller door means a lower price. Inset cabinetry (flush or beaded) is the most expensive style of construction with the longest lead times due to the precision and accuracy required. Inset cabinetry is not recommended for high humidity climates.

MATERIALS

Most people will enter a showroom and say that they want white cabinets and they should be all wood and have no MDF or particle board.

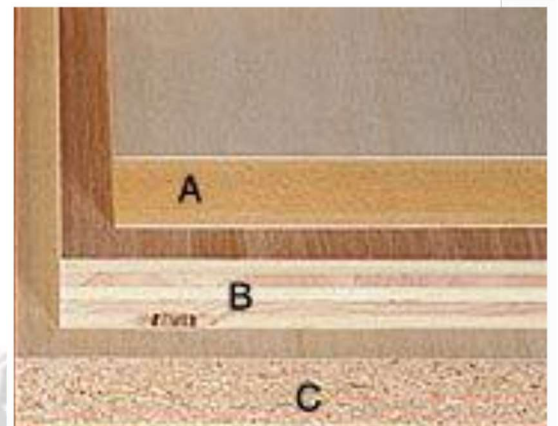
Let's clear up what that means and what is industry standard but in order to do that, we need to understand the construction of the cabinet and differentiate between the cabinet box and the cabinet doors/frame.

Cabinet Box

The cabinetry box (whether frameless or framed) may be offered in furniture board (also called particle board) as well as MDF and plywood. Some companies will charge for plywood as an upgrade, others include it as standard construction but the thicknesses will vary from $\frac{1}{2}$ " to $\frac{3}{4}$ ". So what's the difference between these materials?

A) MDF (Medium Density Fiberboard) – Smooth and flat, about 25% heavier than plywood and comprised of very small hard and soft wood fibers (almost like flour) which are combined with wax and a UF/UMF resin. High pressure and heat is then applied to form panels. The surface is smooth and free of knots or variations and is easily machined. While MDF is usually priced lower than plywood, it is not as moisture resistant.

B) Plywood – Plywood is constructed of internal plies (layers) of wood assembled and glued at right angles for cross-grain strength with two thin higher grade external veneers. There are many varieties of plywood including veneer core and MDF core, all working to reduce weight and



improve structural stability. More moisture resistant than MDF or Furniture Board, plywood is also more stable than solid wood as it is less susceptible to expansion and contraction or warping.

C) Furniture Board (also called Particle Board) – Slightly lighter weight than MDF, particle board is made from larger more coarse fibers which are combined in a very similar process. It is not as easily machinable nor as strong as MDF but it is the least expensive option of these three materials.

All materials mentioned above, regardless of their moisture resistance, will not sustain prolonged exposure to moisture. And all three materials tends to emit VOCs and formaldehyde but the finishing of the materials in cabinetry construction tends to reduce (but not fully eliminate) that exposure.

Cabinet Doors & Frames

Construction

This is where the “solid wood” comes into play. Regardless of what material is selected for the cabinetry box, there are quite a few options when it comes to the cabinetry doors.

Before we get into the weeds, let’s address three major types of cabinetry doors, shown to the right. These three categories remain the most popular and, regardless of whether they are full or partial overlay or inset, these types of doors are classified as:

- A) Shaker/Modified Shaker
- B) Raised Panel or
- C) Slab/Flat



For a **Shaker/Modified Shaker** door style, the center panel of the door (or 5-pc drawer) is flat. For most cabinetry manufacturers, regardless of price point, this flat center panel with either be constructed with MDF (for painted finishes) or a wood veneer with MDF core (for stained finishes). MDF provides the best surface for the application of paint as it will be 100% free of defects. The door stiles and rails and the front frame of the cabinet (if framed construction) will be composed of solid wood or MDF. While most people still elect solid wood, there is one strong reason to opt for MDF - hairline cracks. Solid wood stiles and rails are joined with tight seams but since wood is a living material and will expand and contract, hairline cracks are to be expected, especially at the joints. The same door in MDF would be seamless since it constructed as a single piece and, given how MDF is formed, it will be much less susceptible to hairline cracks than its solid wood counterpart. Shaker/Modified Shaker styles constitute more than 80% of the current demand in the US marketplace.

A **Raised Panel** door style is typically constructed out of solid wood but in the case where it has a painted finish, it will be constructed with MDF, similar to the shake doors, above. A raised center panel style door is typically a more traditional design choice, often selected in stains and most often offered with square panels (although arched and cathedral styles are also still available).

Slab/Flat door styles have no beveling nor ornamentation and are found in contemporary, European and mid-century spaces. These doors are offered in a wide variety of materials, including acrylics (matte or gloss), textured melamine, bamboo, thermofoils, MDF and hard woods. When these are

constructed out of solid wood, typically hard wood boards are glued together to create a door that will resist cupping or warping. They can also be constructed using a hard wood veneer over a plywood core with a veneer edge-banding to avoid the look of parallel boards that may be visible with a solid wood door. Most often, however, these doors are constructed with MDF – either as a painted door or as the core with an acrylic, laminate or thermofoil outer layer.

For a Shaker or Raised Panel door, you will see that the outside of the door has what looks like a picture frame around it. These are called five-piece doors – they have a top rail, a bottom rail, a left stile, a right stile and a center panel. The rails are the two horizontal pieces of the frame, the stiles are the two vertical pieces of the frame and the center panel is in the middle. With a true shaker door, the stiles and rails have square edge profiles. For “modified shaker” doors, there will be a more detailed profile edge to give the door a different flavor – a beaded profile is more traditional, an angled profile a little more contemporary, etc.

Wood Species

The majority of cabinet doors and frames in the US are still produced with hard woods. There are a wide range of hard woods that are offered by cabinet makers, including but not limited to Alder, Birch, Cherry, Hickory, Maple, Red Oak, White Oak, Walnut. Oak is often offered in both flatsawn and quartersawn. Alder, Cherry and Hickory may also be offered in “rustic” versions where the knots of the wood are present and the look is less consistent. Each type of hard wood has its own properties which may fit certain spaces better than others.



Alder

Fine straight grain and even texture. Color tones from light brown to reddish. Softer hardwood damages more easily than other hard woods. Often offered in rustic, knots and blemishes will all be visible.



Birch

Light color, fine grain and smooth texture. Color tones from pale beige to copper. One of the more economically priced hard woods, it is slightly softer than oak.



Cherry

Distinctively grained. More variation than maple. Color tones can have pink/red hues. May have dark patches, small knots and occasional streaking. Cherry darkens with sunlight exposure.



Hickory

Vibrant grains with distinctive color variation that occur in a stripe configuration. Color tones from white to dark brown. May have knots and small pecks.



Maple

Smooth, fine grains. Relatively consistent variation. Color tones from white to light brown. Most common wood for painted finishes.



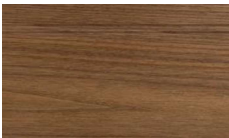
Quartersawn Oak

Any oak that is milled at a 60 - 90 degree angle from the grain to show rays and flecks and give a more dimension to the wood. Used for both staining and painting, quartersawn oak is priced higher than flat cut oak. Both Red Oak and White Oak can be quartersawn.



Red Oak

Textured long grains with occasional pin holes or small knots. Varied raining. Color tones from light blonde to reddish brown. Can be used for painted finishes but its texture is still visible. Red oak is an economically priced hard wood.



Walnut

Straight grained with occasional waves and highly variable. Color tones from light to very dark brown. Carries a premium upcharge.



White Oak

Similar texture to red oak but color tends to have less red tones and less varied graining with tighter lines, making it appear more uniform. Priced higher than red oak.

Other Door Materials

Even though the majority of cabinet doors in the US are still produced with hard woods with either a painted or stained finish, there are other materials available as well.

Acrylic cabinetry can give your space a modern, more European aesthetic. These are available in gloss and matte finishes with different patterns and edge color options. Acrylic is generally used on full overlay, slab door styles and in designs with large, simple lines. Pricewise, these are often more expensive than a maple door.

MDF cabinet doors with a painted finish look the same as a smooth hardwood door, like maple, but are a bit heavier in weight. The only other difference is that they are less susceptible to hairline cracks in the painted finish so for clients who don't find hairline cracks to be compatible with their lifestyle, MDF is a better option. Pricewise, MDF and Maple doors tend to be similar although there are more options in Maple.

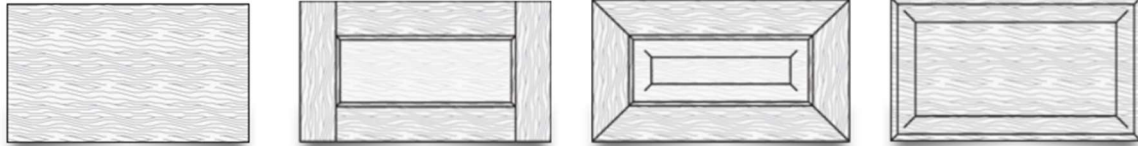
Textured melamine cabinetry can give a wood look without the price of solid wood. Melamine sheets are applied as a laminate to a composite furniture board core material. Most often seen on slab doors and contemporary aesthetics, some manufacturers also offer textured melamines in a shaker door but it is less common. In terms of pricing, these tend to be more economical than Maple.

Thermofoil (foil) has a vinyl-coating that is thermally fused to an MDF core. These types of cabinets were popular in the 90's but have fallen out of favor as they didn't hold up well in kitchens, especially near heat. Pricewise, these are usually the most economical option.

Cabinet Drawers

Quality cabinet drawers will be constructed using dovetail joints and will have soft-close glides so that when the drawer is pushed close, it pauses briefly when approaching the cabinet front and then closes itself completely in a gentle manner. They will have full extension glides which ensure you can access those things that end up in the back of the drawer! Depending on the cabinetry line and glide hardware used, drawers will be rated for different weight loads.

The drawer head will usually coordinate with the cabinetry door style and may be a slab/flat drawer front, a five-piece drawer front which matches the door (flat or raised center panel) or a profiled drawer front. Depending on the size and style of the drawer, the size of the stiles and rails may also vary.



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