

# Choosing the Right Door: Door Materials



## **Fiberglass**

- Pros: Moderately priced. Very dent-resistant, our tests show. Low-maintenance. Resist bugs and warping and rotting. Wont rust. More energy efficient.  
Tax Savings- Many manufacturer's fiberglass doors qualify for a 2009 tax credit up to \$1500.00
- Cons: Can crack under severe impact but it wont break through. Although many doors feature impact resistant glass.
- Features to note: Available with smooth surface or embossed wood-grain texture. Edge treatment on some doors makes them look more like wood. Can be painted or stained. Energy-efficient, though adding glass panels cuts insulating value.
- Expect to pay: \$200 to \$30,000 (that includes side lites, custom glass design, and transom).



## **Steel**

- Pros: Inexpensive. Low-maintenance (unless you have to deal with dents). Taylor Door offers adjustable steel hinged doors.
- Cons: Easily dented, we found. Dents are hard to repair. Scratches pose the risk of rusting if they aren't painted.
- Features to note: Energy-efficient, though adding glass panels cuts insulating value.

- Expect to pay: \$135 to \$1,550.



## Wood

- Pros: The high-end look that other materials try to mimic. Least likely to dent. Scratches are easily repaired.
- Cons: Expensive. Requires regular maintenance--painting or varnishing--to look its best. Sometimes it warps.
- Features to note: Rails and stiles (vertical and horizontal parts) made of laminated wood covered with veneer provide the greatest resistance to warping.
- Expect to pay \$500 to \$2,500.

## Costs v. Durability

When it comes to security and weather-resistance, our tests show that a \$135 steel front door can be the equal of one in fiberglass or solid wood costing up to five times as much. But that doesn't mean the steel door is a better bet in the long run.

After subjecting many different doors to dents and scratches, plus the laboratory equivalent of torrential rain, strong winds, and the equivalent of a decade's use, we found that steel doors show the effects of wear and tear more than wood or fiberglass doors do. That's an important point to keep in mind if, like millions of other homeowners, you're ready to replace the front door to enhance your home's curb appeal.

The doors we're discussing here are known in the trade as **entry doors**. They can be back doors or side doors, too, not just front doors. (They're also known as door systems because they come pre-hung in a frame and often drilled for a knob and lock.) But because the main entrance commands the most attention from the street, it also commands the most attention in the marketplace.

As such, it's becoming easier to customize a door; manufacturers offer dozens of options for panel and glass designs, grille patterns, sidelights, and transoms. Homeowners are taking advantage of that, adding glass panels or sidelights or

upgrading from steel to fiberglass or wood. ODL, Jeld-Wen, Masonite, Peachtree Doors & Windows, Plast-Pro, Simpson, Taylor Door, Therma-Tru and other major manufacturers offer a range of doors in wood, steel, or fiberglass.

## How to choose

Most doors perform very well, we found, so appearance and price will often be the deciding factor. But in selecting a door, you also need to keep some practical considerations in mind.

**Consider fiberglass first.** Steel doors account for about half the market, competing with fiberglass and wood. Types shows how they compare. Considering price, wear and tear, and maintenance, fiberglass makes a very practical choice for most people. As a class, fiberglass doors edge out steel doors for wear and tear. Wood doors were better still in that regard, we found. However, wood doors generally didn't do quite as well as fiberglass or steel at keeping out heavy rain. They also require regular maintenance to keep their looks.

With any type of door, be sure it has an adjustable threshold to keep it weather tight over the years. Without that feature, you may need to add a new sweep to be sure that the door keeps out rain and drafts.

**Know the pros and cons of glass.** Entry doors like the ones we tested are available in hundreds of variations, depending on which panel design, glass inserts, sidelights, or transoms you choose. The more elaborate the glass, the more the door will cost.

Keep in mind, too, that glass near the knob and lock can compromise security. Glass inserts also cut the insulating value of steel or fiberglass doors.

**Keep energy efficiency in perspective.** Steel and fiberglass doors have more insulating value than wood doors, but the differences really don't matter much. For one thing, doors are a very small part of the surface area of a house and therefore don't allow large amounts of warm to air escape. For another, heat is generally lost through air leaks around the door, not through the door itself.

We think it's better to use price or style, not claims for energy efficiency, to choose between doors you're considering.

**Remember that size matters.** Unless you're replacing an entry door as part of a larger remodeling project, you may want the new door to be the same size as the old. If you opt for a wider or taller door or want to add sidelights, you'll have to

redo the framing that holds the door in place. That's something best left to a qualified contractor. Unless you're a very adept carpenter, you may want to hire a pro to install the new door in any event.

**Go online before you go to the retailer.** Manufacturer Web sites describe materials, let you order catalogs, and help you find a local retailer. Online shopping can give you an idea of what you want before you contact us.

A distributor may not display the exact door you want, but you should be able to see a similar model that will give you an idea of construction and finishes. Home centers generally offer installation services but there are all sorts of additional fees at the time of installations that the installers were not aware of, but their displays, stock, and selection are more limited and of poorer quality. The best bet is to have an experienced professional come and measure to order the right sized door for your home to save you time and insure that the door fits and is installed correctly.

**Choose a high-quality lock.** Entry doors don't normally come with knobs or a lock; you need to buy them separately. In our tests of security--assaulting each door with increasingly hard blows from a battering ram--every door failed because the doorjamb split near the lock's strike plate. We tested two doors again, with beefed-up locks and strike plates, to see how much of an improvement that would make. One door withstood five times as many blows before it failed. A Therma-Tru Fiber-Classic, with an optional three-point lock, showed no damage after a similar pounding.