Choosing the Right Entry Door

Make a smart first impression when installing a front door.

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When installing a new entry door, you might think the choices are limited to steel, wood or fiberglass. That's generally true, but within each of those three categories there are some variances that will affect how the door performs and how long it will stay looking great.

"The first thing to look at is how much weather the door will be exposed to," says Brad Oberg, chief officer for an architectural and engineering consulting firm in Pittsburgh. "You have to look very closely at the durability of the material and the quality of the weatherstripping system to make sure the door will hold up and keep air and water out."

Steel. Made of an inner frame of wood or steel with a 24-gauge steel skin (or thicker on premium doors), the cavities of most steel doors are filled with a high-density foam insulation. Finishes are usually a baked-on polyester finish, which may need periodic resealing. Premium doors have a vinyl coating for improved weather resistance or sometimes even a wood veneer that can take a stain.

If exposed to direct sunlight, some steel doors can build up so much heat they will be uncomfortable to touch. Also, some manufacturers will void the warranty if an aluminum storm door is paired with a steel door because heat will build up between the two and cause the steel door's finish to peel. Steel doors are also somewhat less energy efficient than wood or fiberglass; heat or cold can be conducted through to the inside surface unless a thermal break is incorporated into the door's construction.

Wood. A popular choice for aesthetic reasons, wood doors come in a wide variety of species and can take just about any stain or paint color. Some stock wood doors are actually veneer skins over an engineered wood core, which helps them resist shrinking, swelling and warping that is common with solid wood doors.

"Wood doors work best when installed in a protected area," Oberg says. "Unless they're under an overhang or located in a shaded area, the homeowner will have to perform a lot of maintenance, and warping will be a problem."

As a rule, wood doors with intricate moldings, thicker and wider stiles and rails and thicker panels are usually the best quality. High-end wood doors have panels up to 1-3/8" thick, compared with just 3/4" thick panels on economy models.

Fiberglass and composite. Tough and virtually maintenance-free (except when placed directly in harsh weather, in which case periodic resealing may be required), these doors can mimic the look and feel of a solid wood door. Typically made of molded skins of fiberglass on a framework of wooden stiles and rails, these doors contain polyurethane-foam insulation.

Fiberglass or composite doors typically carry the longest warranties of any of the three materials, and can run anywhere from $200 for a basic unit without any glazing to up to $4,000 for a complete entry system with sidelights and upscale hardware.

Other Factors

Oberg points out that while each material has minor variances in energy efficiency, the most important thing that will decide how well a door performs in this area is weatherstripping and proper flashing and installation.

The American Architectural Manufacturers Association has published a great set of guidelines and has a list of verified products that ensure a quality weatherstripping system that will perform as expected for years.

He also recommends that builders look closely at the threshold system (adjustable ones are desired) and the glazing system, if present (make sure it is properly supported from within, not just "popped in").

"Front doors are a major aesthetic portion of any house," Oberg says. "And in smaller homes it can also be a major part of the ventilation system. Take the time to research the products."