



## REPLACING YOUR STORM DOOR

Not only does your storm door offer a first impression of your house, it is also used each time you come and go, day in and day out. If this door sticks or binds, or if it doesn't close properly, then it's not doing the job that it was intended to do. A storm door works by trapping air between itself and an inner door. This pocket of air acts as an insulator and helps reduce drafts that otherwise can creep into your house and make your feet cold in the winter. *(Note: Because sunlight can cause heat build-up in this air space, you may not wish to install a storm door outside of a heavily-insulated steel or fiberglass entry door that has plastic moldings around the windows. The plastic may melt or deform from the heat.)*

Replacing a storm door in a standard opening is a project that most homeowners can complete in about two hours. However, it's important to spend time making a careful selection of your new door. Storm doors can range widely in price, from inexpensive economy models to quite costly alternatives. There are a few features you should look for when selecting your new door. Only the most expensive doors will have all the best features, but you can seek a door with the most features for the money you have available.

Most doors need replacement because they sag, bind, twist, or stick. So, look at how the door is constructed. Pay particular attention to the corners, because when they start to pull apart, the door begins to bind. Some more expensive doors have a wooden core with a thin layer of aluminum or vinyl around it. Such doors have a solid corner without a joint – a good feature. Most medium-priced doors are assembled with corners that are mitered (at a 45° angle) and then screwed or riveted together. This type of corner can pull apart. On the other hand, mitered corner that are welded together form one of the strongest corners. (Welding also effectively seals the corners against air leakage.) The least expensive doors are assembled by butting the sides against the top and bottom, forming the weakest type of corner.

Next, look at how the window is installed. The best doors have corners that are welded, or at least caulked. If the door's main function is to keep out air, then openings at the corners of the window will defeat your purpose. You can caulk these corners yourself, but it's hard to do a neat, attractive job.

You'll also want to consider the bottom panel of the door. The size of this panel affects the door's rigidity. The larger and sturdier the panel, the less chance that the door will twist out of shape. Doors with a large piece of glass running nearly their full length are much more likely to twist; because there is no metal panel below the glass, the door is less rigid, and the frame can flex around the window.

The way the door seals to the frame is another important feature to consider. The best system is the magnetic weatherstripping (like the system on your refrigerator) that is found on some metal doors. More commonly, the weatherstripping is made from felt or nylon bristle; this type tends to wear quickly.

Finally, look at the material from which the door is made. Aluminum with no inner core of a different material will tend to conduct the cold from the outside in. Aluminum or vinyl doors with an inner core of wood or rigid insulation are the most efficient at preventing such heat loss.

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When you install your new door, caulk behind the frame before you install it, and at the corners of the frame after installation. This will help insure an airtight seal and increase the efficiency of your new door. Usually, a hacksaw (for adjusting the frame,) tape measure, hammer, screwdriver, and caulking gun are the only tools you'll need. There is no regular maintenance needed for most storm doors, beyond routine cleaning.