

## Exterior Entry Door Inspections

### Inspecting your hinged door: Is it strong enough?

Inspect your door to determine its condition including whether it has the basic necessary strength, is in need repair, needs a new lock, or needs to be replaced. If you are relying only on the deadbolt and door latch to keep a door closed on the door knob side, bear in mind that they have to be able to withstand half the pressure applied to the door, that is  $580/2=290$  pounds for a 130 mph wind.

- Is the **edge of the door split** where the deadbolt is located?
- Is the **door jamb split** at or near the strike plate for the deadbolt?
- Is the **strike plate** well anchored to the jamb or are the screws short, loose, or wood split?
- Is the **deadbolt loose** or does the deadbolt seem flimsy?
- Does the door have only **two hinges**?
- When you can push on the edge lock edge of the door and push it towards the hinges do the **hinges** move the frame (jamb) in a way that does not instill confidence?
- Does the **door jamb seem well secured** to the framing of the house? If it obviously is not well secured, you have a problem. But even it seems well secured then it may take a professional to determine that more definitively. See side bar.
- Does the **threshold** seem well attached to the floor? Many times they are not well secured or the anchors/screws work their way loose. It is important that thresholds that have stops (the door bumps into a ledge) be well secured because they will help hold a door in place in one wind direction.
- If you have **double doors** with pins at the bottom or top then examine them carefully to determine how effective they are. Are the plates that hold the frames of the pins well secured to the edge of the door? Is the wood around them split? Are the screws secure, long enough, and effective? Do the holes into which the pins are inserted in the threshold and above the door look effective at keeping the doors closed? Do the pins insert at least  $\frac{1}{2}$ " into the holes?
- Does the door have a **sidelight**?
- Does the **wall** around the door seem strong? If a door has 'handmade' sidelights, then one needs to be especially concerned about how much strength there is to hold the door and sidelight in place. The forces can easily be excess of 800 pounds.
- Does the door have raised **panels** such that when you look at them carefully they are less than  $\frac{1}{2}$ " thick in places?
- Is the door a **wind rated** door? Is it rated by its manufacturer to be able to withstand pressures in excess of 40 to 50 pounds per square foot? Unless it

was manufactured after 1994 it likely is not rated for pressure. If the door is wind rated it will have a label on a side edge or the top edge.

- [ ] Is the door rated to be **debris resistant**? Unless it was manufactured after 1994 it likely is not rated for impact.

### **Inspecting your hinged door: Will it keep water out?**

When inspecting, don't hesitate to get on your hands and knees to look carefully under the door to look for cracks and to see how easily you think water can slip through.

- [ ] Is the **weather stripping** on the sides and top of the door in good shape? Can you see air? Is it a snug fit? Does it extend all the way at the top from side to side or at the sides from top to bottom? Has it shrunk or cracked?
- [ ] Has the weather stripping lost its **pliability**?
- [ ] Is the **gap** between the bottom of the door and the threshold more than 1/16"?
- [ ] Is the threshold well secured to the floor?
- [ ] Is the **threshold** water tight under it? Can water flow under the threshold?
- [ ] Is the **rubber on top** of the threshold ripped or not in a nice bubble shape or worse missing?

If your steel or fiberglass door came as a factory made assembly with jamb and threshold it will likely have a **sweep** of some sort under the bottom edge of the door. The sweep may be several flaps of rubber that act as sweeps. They are easily torn if the space between the bottom of the door and the threshold is too small.

- [ ] Is the sweep torn or raggedy? Even if the flaps are in good shape you can imagine how easy it would be for a strong wind to push them aside to let water flow into the house.
- [ ] Is the door **warped** so that in places weather stripping can perform as it should, but at other places there is an air gap? This is a common problem with wood doors. A crack 1/16" wide by 2' long is equal to a square hole greater than 1" on a side. That will let a tremendous amount of wind driven rain into your house.
- [ ] Can you see big gaps or sunlight at the top corners or bottom **corners** of the door? You may have to look from different angles or from both the inside and outside to answer this for sure.
- [ ] Do some of the door's **raised panels** have cracks in them or do some panels fit loosely?