



Building Code Corner

The Source for Side-hinged Door Code & Regulatory Information

Steve Schreiber: (615) 441-4258
 sschreiber@masonite.com
 Tank Reid: (615) 441-4240
 treid@masonite.com

Performance Claims

As industry standards and building code requirements for side-hinged doors increase, we need to understand exactly what is being asked of our industry and who can make performance claims on a door.

First, we need to clearly understand the difference between an assembled door system and a component. A door system is the complete collection of components as assembled together and ready for installation. Those components typically include items such as frames, thresholds, astragals, hinges, locks, weatherstrip, door panels, and

glass or glazing. A door system also includes any fasteners used to join the components and any sealants used between components. A component, on the other hand, is one ingredient of a door system.

Next, we need to identify the designer and the manufacturer of a door system. The designer of a door system is the person(s) who specifies the exact list of components to be used in the assembly. In the side-hinged door industry, the pre-hanger is commonly both the designer and manufacturer. However, that is not always the case. Occasionally, the components are specified by one party, but are purchased and assembled by another. In this case, the pre-hanger would be the manufacturer, but not the designer. If all the components are supplied to the pre-hanger by the same source, the pre-hanger would be neither the

designer nor the manufacturer (“knock down” unit).

So, who is responsible for claiming performance of a side-hinged door? That answer depends on the specific performance characteristic. If the performance is a characteristic of an assembled door system, only the manufacturer of the assembled unit can make that claim. The designer may have evaluated the performance of the design, but only the manufacturer can make the claim. Unless the door system is a “knock-down” system (that is, if all the

What is required and who can make the claim of compliance is the source of much confusion in the door industry. Performance claims may be needed to meet federal regulations, local building codes, specifications of an architect or even customer expectations. As the burdens on the door industry to demonstrate performance increase, so is the need to have a plan to demonstrate compliance. Demonstration, itself, can be challenging. Depending on the source of the requirement, third party certification of performance may be necessary. In other cases, an affirmation statement by the manufacturer may be sufficient.

Performance Categories

Performance of a door may be specific to an individual component of that door system or it may be specific to the entire assembly and how all the components interact with each other. Categories that are based on how the complete assembly performs include:

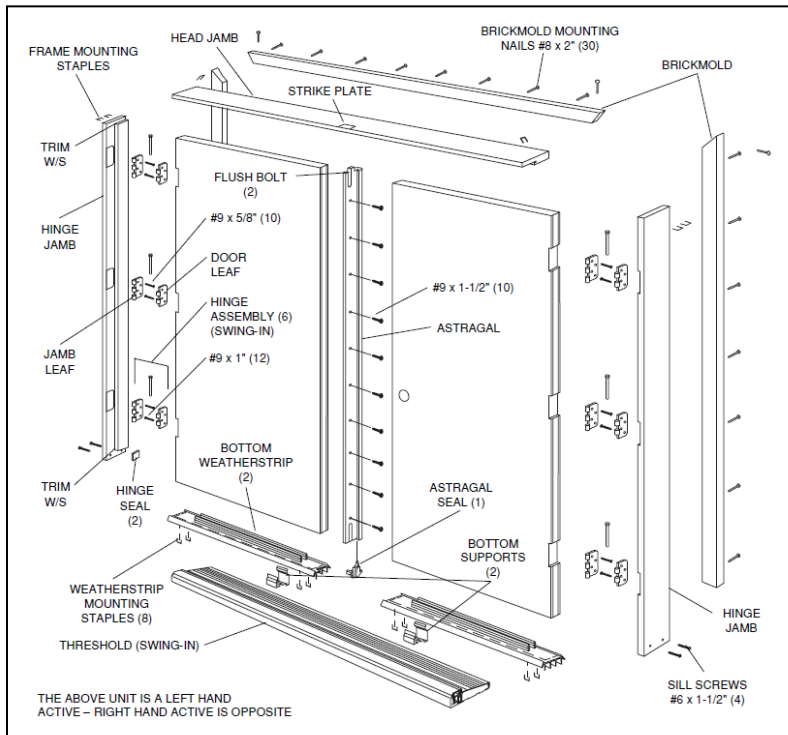
- Structural / Windload
- Impact Resistance
- Water Penetration
- Air Infiltration
- Energy Efficiency
- Sound Transmission
- Forced Entry Resistance
- Force to Latch
- Egress / Clear Opening

In these cases, substitution of components may or may not affect the performance of the overall assembly.

Categories that are based on the performance of components include:

- Safety Glazing
- Fire Resistance
- Temperature Rise
- IG Seal Durability
- IG Gas Retention
- Flame Spread Index
- Smoke & Draft Control

In the case of fire resistance, each component of a door system may be tested and rated individually and must be appropriate for use in a door system that is to be rated.



components come from a single source), the pre-hanger is considered to be the manufacturer and is responsible to make performance claims. If the performance characteristic is specific to a component within a door system, that burden would fall on the supplier of that component. A simple example of this would be the requirement for safety glass in side-hinged doors. Obviously, only the party who tempered the glass can make any claims about its condition.