



## Bulletin No. 2015-03

**First Release:**

September 25, 2015

**Prepared by:**

Fred Malik, Vice President,  
FORTIFIED Programs

**Applicable Standards:**

FORTIFIED Home™–High Wind

**Applicable Designation Level:**

# Garage Door Pressure Rating Requirements in High Wind–Prone Areas

## Abstract

Garage doors cover the largest openings in the building envelope. It is important to ensure each garage door has an adequate design pressure rating for the site conditions. This bulletin provides information on how to specify and verify the design pressure ratings for garage doors installed on homes located in areas that use the FORTIFIED Home™–High Wind standards.

## Requirements

Garage doors must be tested and approved in accordance with, at a minimum, International Residential Code (IRC) accepted design pressure test standards for a  $V_{sd} = 110$  mph 3-second gust ( $V_{ult} = 140$  mph) design wind speed (or with locally adopted standards if they are more restrictive). Acceptable IRC design pressure test standards include ANSI/DASMA 108 or ASTM E330 (products must be tested to 1.5 times design pressure). The Florida Building Code Testing Application Standard, TAS 202, is also acceptable for the FORTIFIED Home™ program.

Design pressure values for garage doors vary depending on the size of the doors, exposure category and mean roof height of the building. The required design pressures can be found in the tables below.

**Exposure B** is for homes located in neighborhoods surrounded by other buildings and/or trees.

**Exposure C** is for homes located in more exposed settings with few buildings and/or there are large open areas (including but not limited to fields, lakes, rivers, and golf courses) adjacent to the home site.



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**Note:** Care should be taken when specifying and ordering garage doors. Many times, multiple door configurations (width, height, design pressure ratings, windows, etc.) can be shown on a single engineered drawing included in manufacturer documentation. Be sure the door installer quotes and installs the door with the correct track, and correct number of rollers and struts to achieve the appropriate design pressure ratings described above. If the door manufacturer does not have design pressure rating information for a door that is specified or installed at the subject property, the door will not meet FORTIFIED requirements.

Table 1. Height & Exposure Adjusted Design Pressures for Single Garage Doors

Mean Roof Height (ft)	Single Car		Single Car	
	Exposure B		Exposure C	
	+	-	+	-
15	20	-22	24	-27
20	20	-22	26	-28
25	20	-22	27	-30
30	20	-22	28	-31
35	21	-23	29	-32
40	22	-24	30	-33
45	22	-25	31	-34
50	23	-26	31	-34
55	24	-26	32	-35
60	24	-27	32	-36

Table 2. Height & Exposure Adjusted Design Pressures for Double Garage Doors

Mean Roof Height (ft)	Two Car		Two Car	
	Exposure B		Exposure C	
	+	-	+	-
15	19	-21	23	-25
20	19	-21	25	-27
25	19	-21	26	-28
30	19	-21	27	-29
35	20	-22	28	-30
40	21	-23	28	-31
45	21	-24	29	-32
50	22	-24	30	-33
55	23	-25	30	-33
60	23	-26	31	-34



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® All installations must be in accordance with the manufacturer's instructions.

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## Compliance Verification Requirements

It is not possible to determine the design pressure ratings of a garage door simply by looking at the door or the track. If the door has a design pressure label, which is not common, (see Fig. 0-1 and Fig. 0-2 below) and the design pressures listed meet the criteria above, the door should meet FORTIFIED Home™ requirements.

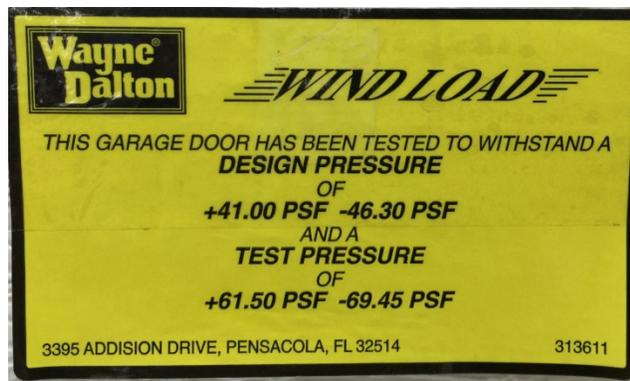


Figure 0-1



Figure 0-2



# Garage Doors

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**Note:** Although 3 is the minimum number of photographs required, the goal is to achieve a complete view of each garage door. Photographs must be taken from inside the garage with the garage door closed. Site conditions may dictate that more than the minimum be provided.

Any door that is not labeled or does not have paperwork that indicates its design pressure ratings meet those outlined above will be deemed not to meet FORTIFIED Home™ requirements. Any door that is labeled, or has documentation but does not meet the design pressure criteria provided above, will need to be retrofitted to meet these pressure requirements or replaced. If the door is retrofitted, documentation will be required certifying the retrofitted door, hardware, tracks and anchorage match those for a new door from the manufacturer that meets the pressure requirements given above.

Acceptable documentation includes, but is not necessarily limited to:

## Pictures of all Garage Doors

Minimum = 3: 1 of track on each side, 1 of entire door, plus 1 close up of any label that identifies door manufacturer, model and/or design pressure rating, if applicable.

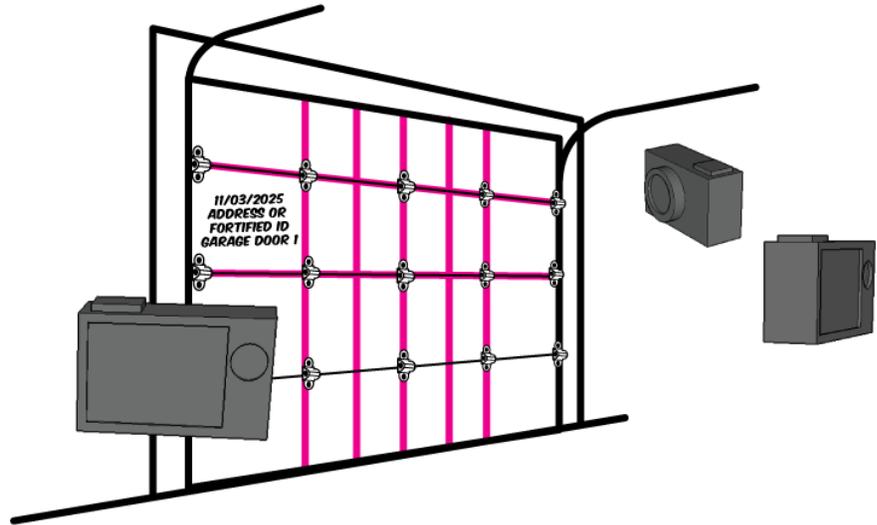


Figure 0-3. Minimum photograph requirement and locations. Labeling of garage door to identify project and photo location.



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- Pictures should be taken of each door while closed and from inside the garage.
- Pictures must be in focus.
- Pictures must have the following clearly visible: Date, Address or FORTIFIED ID, Door ID (e.g., Garage Door 1, Garage Door 2, etc.). See Figure 0-3.

### Other Required Documentation

- Invoices and/or product packaging identifying garage door product name, manufacturer, and design pressure rating
- Documentation from Miami-Dade, FBC, TDI product approvals or ICC Evaluation Reports, if applicable

### Completing Evaluation Form

(For FORTIFIED Evaluator)

When completing a FORTIFIED Home™ evaluation form, under Section: Garage Doors, enter:

- Garage door size
- Positive design pressure
- Negative design pressure