



Garage Doors in High Wind Designations

Technical Bulletin FH 2024-04

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Applicable Standards:

FORTIFIED Home™–High Wind

Applicable Designation Level:



Garage Door Requirements for FORTIFIED High Wind Designations

Introduction

The garage door is typically the largest opening in the exterior walls of a home, and when breached, it can be a significant damage amplifier. A failed garage door allows internal pressurization of the garage, which the home was not designed to withstand. This often leads to structural failure of the roof system, potentially compromising the structural integrity of the entire building.

Garage door failures resulting in major roof or other structural failures are consistently observed in post-disaster field investigations. This led IBHS to research the common causes of garage door failures and ways garage door openings can be strengthened and protected. Based on this research, pressure-rated garage doors became a key component of FORTIFIED Home™–Silver designations.

While pressure-rated garage doors are generally required by the building code in hurricane-prone areas and are an important way to prevent damage from high wind events, they are still uncommon in many inland markets. This technical bulletin provides an overview of the garage door requirements, and the documentation needed for a FORTIFIED Home–High Wind–Silver designation.

Additional details, as well as the requirements for FORTIFIED Home–Hurricane–Silver designation can be found in section 5.4 of the [2025 FORTIFIED Home Standard](#).

Definition of “Pressure-rated”

In reference to garage doors, “pressure-rated” indicates that the garage door has been tested to resist damage/breach up to specific wind pressures. When determining the appropriate pressure rating for a home, its exposure category, the ultimate wind speed required, and the size of the opening must be considered.

Using these design parameters, Table B2.3 from Appendix B of the





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[2025 FORTIFIED Home Standard](#) provides the minimum required design pressures for both single car and two car garage doors.

**ASD Wind Design Pressures (psf) for Components:
(Windows, Entry Doors, Patio Doors, Garage Doors and Opening Protection Products for Roof Heights 30 ft or less)**

Area of Opening (ft ²) (height x width)	ASCE Edition	Exposure B&C																							
		130		140		150		160		170		180													
		Zone 4	Zone 5	Zone 4	Zone 5	Zone 4	Zone 5	Zone 4	Zone 5	Zone 4	Zone 5	Zone 4	Zone 5												
10	7-10	25	-27	25	-34	30	-31	30	-39	34	-36	34	-45	39	-42	39	-52	44	-46	44	-57	49	-53	49	-66
	7-16 and 7-22	26	-28	26	-34	30	-32	30	-40	34	-37	34	-46	39	-42	39	-52	44	-47	44	-59	49	-53	49	-66
20	7-10	24	-27	24	-31	28	-31	28	-36	32	-35	32	-42	37	-39	37	-48	42	-45	42	-55	47	-51	47	-61
	7-16 and 7-22	24	-27	24	-32	28	-31	28	-37	33	-35	33	-42	37	-40	37	-48	42	-45	42	-55	47	-51	47	-61
50 (Single Car Garage)	7-10	23	-24	23	-28	27	-28	27	-32	30	-32	30	-38	35	-38	35	-43	39	-42	39	-49	44	-48	44	-55
	7-16 and 7-22	23	-25	23	-29	27	-29	27	-33	30	-33	30	-38	35	-38	35	-44	39	-43	39	-49	44	-48	44	-55
100 (Two Car Garage)	7-10	22	-24	22	-27	25	-27	25	-31	29	-31	29	-35	33	-35	33	-39	37	-41	37	-45	42	-46	42	-51
	7-16 and 7-22	22	-24	22	-27	25	-28	25	-31	29	-32	29	-35	33	-36	33	-40	37	-41	37	-45	42	-46	42	-51
Area of Opening (ft ²) (height x width)	ASCE Edition	Exposure D																							
		130		140		150		160		170		180													
10	7-10	30	-32	30	-40	35	-37	35	-46	40	-43	40	-53	46	-50	46	-61	52	-55	52	-68	58	-63	58	-78
	7-16 and 7-22	30	-33	30	-41	35	-38	35	-47	40	-44	40	-54	46	-50	46	-62	52	-56	52	-69	58	-63	58	-78
20	7-10	29	-32	29	-37	34	-37	34	-43	39	-42	39	-50	44	-46	44	-56	49	-53	49	-65	55	-60	55	-73
	7-16 and 7-22	29	-32	29	-38	34	-37	34	-44	39	-42	39	-50	44	-48	44	-57	49	-54	49	-65	56	-60	56	-73
50 (Single Car Garage)	7-10	27	-28	27	-33	32	-33	32	-38	36	-38	36	-45	41	-45	41	-51	46	-50	46	-58	52	-57	52	-66
	7-16 and 7-22	27	-30	27	-34	32	-35	32	-40	36	-40	36	-45	41	-45	41	-52	46	-51	46	-59	52	-57	52	-66
100 (Two Car Garage)	7-10	26	-28	26	-32	30	-32	30	-37	34	-37	34	-42	39	-42	39	-46	44	-48	44	-53	49	-54	49	-60
	7-16 and 7-22	26	-28	26	-32	30	-33	30	-37	34	-38	34	-42	39	-43	39	-48	44	-48	44	-54	49	-54	49	-60

NOTES

- Design pressures provided are intended to be preliminary guidance for use with the FORTIFIED Home program per ASCE 7. Refer to FORTIFIED Standard Detail F-G-2 for identification of Zones 4 and 5. Design pressures must meet or exceed local code requirements.

Table B2.3. ASD Wind Design Pressures (psf) for Components with Roof Heights 30 ft or less





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Requirements

Design pressure rating requirements for garage doors can be determined using Table B2.3 (above). **At the FORTIFIED Silver™ level, every garage door in the building is required to be “pressure-rated” and must have design pressure ratings that correspond to a minimum $V_{ult} = 130$ mph and Exposure C (or greater depending on site conditions) and must be installed in accordance with the manufacturer’s instructions.**

For homes seeking a FORTIFIED Home–High Wind designation, the maximum possible wind speed will be 115mph Exposure D which has lower design pressures than 130mph Exposure C. Therefore, using the design pressure values for a single car garage door in zone 5 with a design wind speed of 130mph Exposure C (+23/-29 psf) will satisfy the requirements if tested with an approved pressure test standard. An engineer can review the location of the door to determine if pressures can be reduced but **any door with an approved pressure rating of +23/-29 psf would meet the design pressure rating requirements of a FORTIFIED Home–High Wind–Silver designation.**

Section 2.10.2 of the [2025 FORTIFIED Home Standard](#) states garage doors must be tested and approved in accordance with one of the following International Residential Code (IRC) accepted pressure test standards (or with locally adopted standards if they are more restrictive):

- ANSI/DASMA 108 or ASTM E330 (products tested to 1.5 times design pressure)
- ANSI/DASMA 115 for doors with glazing
- The Florida Building Code Testing Application Standard TAS 202

FORTIFIED will not accept engineering rational analysis in lieu of testing to determine design pressure ratings. Additionally, the installed product must match the tested assembly in the certified report.

Compliance Verification Requirements

The preferred way to document the design pressure rating of a



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garage door is to provide photos of the label on the garage door showing the DP rating and testing standard. Figure 1 shows a garage door label that provides the design pressure rating of the door and specifies that the design pressure rating is per the ANSI/DASMA 108 testing standard (which is an acceptable test standard per FORTIFIED as described above). The photos submitted to IBHS should verify the label is applied to the garage door installed onsite (by geolocation stamp) and close-up, legible photos of the label wording must be captured and submitted.



Figure 1. Photo of garage door label showing design pressure rating and test standard

Additionally, overall elevation photos of each garage door are also required. Photos should be in focus and taken with the door closed from inside the garage as well as from outside. The following photos are required as shown in Figure 2:

- A minimum of 1 photo showing the entire garage door and number of horizontal members from inside of the garage
- A minimum of 1 photo showing track and number of supporting brackets on each side
- A minimum of 1 photo showing the entire garage door from outside of the garage
- Pictures should have the following clearly visible: Date,



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Geolocation Stamp/Address or FORTIFIED ID, Door ID (i.e., Garage Door 1, Garage Door 2, etc.)

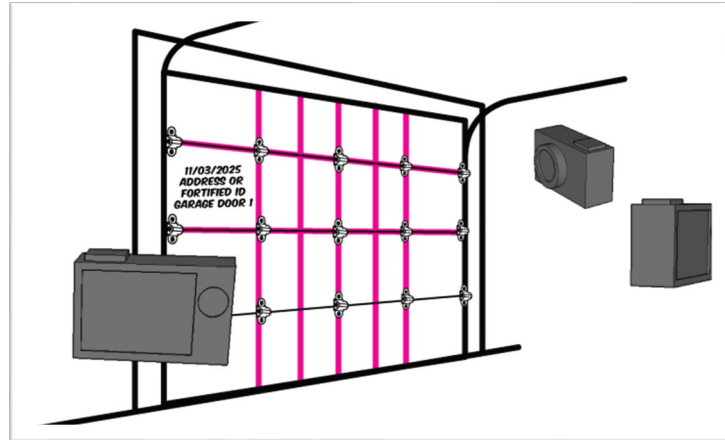


Figure 2. Required photos of inside of garage door.

Alternate Documentation Any garage door that is not labeled must have documentation linking it to the site and verifying design pressure rating, such as the following:

- Invoices with date, address and/or product packaging photographed onsite identifying garage door product name and manufacturer
- Certified testing report (such as Miami-Dade NOA, FBC or TDI product approval, or ICC-ES Report) that verifies design pressure rating for product installed

Documentation must be provided to confirm that the garage door is design pressure rated to meet or exceed the FORTIFIED Home requirements. If the documentation outlined above is not provided, it will be deemed to NOT meet FORTIFIED Home requirements.

Additional References

- [2025 FORTIFIED Home Standard](#)
- [FORTIFIED Documentation Requirements](#)
- [FORTIFIED Legal Disclaimer](#)

