



Excellent Choice

## WINDSOR WINDOWS & DOORS

### DESIGN PRESSURE (DP) INFORMATION

#### Installation Instructions

Correct installation of all products is necessary to achieve the stated design pressure ratings. Please reference the installation instructions found on all Windsor products or at our web site at [www.windsorwindows.com](http://www.windsorwindows.com)

#### What is a DP rating?

A DP (design pressure) rating is a numerical value which defines the structural wind loading requirements for a building and components and cladding of a building. Factors used in determining a design pressure are:

1. Basic wind speed velocity in miles per hour (mph) as referenced in the local building code
2. Building height
3. Occupancy type for determining importance factor
4. Exposure category based on geographic location
5. Whether the building is enclosed or open

Using the above information, building professionals must compute other modification factors such as Building Shape and Gust Factors according to the applicable local building code or ASCE 7- 88 "Minimum Design Loads for Buildings and other Structures" to arrive at the final DESIGN PRESSURE required.

**NOTE: A local building code official should be contacted for official design pressure or other code requirements before a product is specified.**

Design pressures are described in pounds per square foot. Design pressure ratings for windows and doors include a number of performance factors such as: structural test pressure, water penetration, air infiltration, operational force and forced entry testing.

After complying with these requirements at the minimum test size for that product, a product is permitted to be tested in the same or a smaller test size for conformance to an Optional Performance Grade as listed in Table 1.1.

<b>AAMA 101/1.S.2-97 STANDARD</b>						
<b>DP RATING</b>	<b>DESIGN PRESSURE</b>	<b>STRUCTURAL TEST PRESSURE</b>		<b>WATER PENETRATION @ 8" Rain / hr</b>		<b>AIR INFILTRATION @ 1.57 PSF ALLOWED</b>
		<b>PSF</b>	<b>MPH</b>	<b>PSF</b>	<b>MPH</b>	
<b>DP20</b>	20	30	108	3.00	34	0.30
<b>DP25</b>	25	37.5	121	3.75	38	0.30
<b>DP30</b>	30	45	133	4.5	42	0.30
<b>DP35</b>	35	52.5	143	5.25	45	0.30
<b>DP40</b>	40	60	153	6.0	48	0.30
<b>DP47</b>	47	70.5	167	7.05	53	0.30
<b>DP50</b>	50	75	173	7.5	55	0.30



**WINDSOR**  
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A WOODGRAIN MILLWORK COMPANY

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## WINDSOR WINDOWS & DOORS DESIGN PRESSURE (DP) INFORMATION

### **Design Pressure Vs. Structural Test Pressure**

When a design pressure requirement for components and cladding (e.g. windows, doors & skylights) has been defined, a product is tested to 150% of this pressure as a safety factor. This pressure is called a structural test pressure. Both structural test and design pressures are described in pounds per square foot or PSF. The structural test pressure of each product would be 1.5 times the design pressure listed.