WINDOW & DOOR MANUFACTURERS ASSOCIATION
WDMA

# CHOOSING THE RIGHT PRODUCTS TO DESIGN FUNCTIONAL AND WEATHER-RESISTANT HOMES

# CHOOSING THE RIGHT PRODUCTS TO DESIGN FUNCTIONAL AND WEATHER-RESISTANT HOMES: A CHECKLIST

## HAVE YOU CONSIDERED...

| CONSIDERATION | WHAT TO KNOW | HOW WDMA HALLMARK-CERTIFIED PRODUCTS MEET THIS REQUIREMENT | ✓ |
|---|---|---|---|
| Design Pressure | Design pressure rating (DP) rating measures the amount of pressure fenestration products such as windows, doors and skylights can withstand without breaking. This considers factors such as performance in high winds and other wind-driven factors without failing. | WDMA's Hallmark Certification Program confirms that manufacturers meet fenestration performance requirements and follow the testing protocols of the North American Fenestration Standard (NAFS) to ensure minimum design pressure ratings are met. | ☐ |
| Glazing/Coating | Geographical location directly impacts the recommended impact resistance of glazing for exterior windows. In hurricane-prone areas, glazing helps enhance safety to minimize damage.<br><br>Hurricane-Prone Areas:<br>1. Areas within 1-mile of the coastal mean high-water line where wind speeds can exceed 130mph.<br>2. All areas, regardless of how far inland, where wind speeds can exceed 140mph.<br><br>Energy efficiency is also an important factor for glazing. Products with low-emissivity ("low-E") coatings on glass reduce heat transfer and save clients money on energy costs. This is especially useful when designing a home in a colder climate.<br><br>The Solar Heat Gain Coefficient (SHGC) signifies the amount of solar heat that passes through a window. | **Safety Glazing Certification Council.**<br>This certification program ensures glass products are tested to minimize and reduce risk of injury.<br><br>**National Fenestration Rating Council.**<br>This rating identifies Solar Heat Gain Coefficient (SHGC). Look for lower SHCG in warmer climates, and higher SHCG in colder climates. | ☐ |

| | | | |
|---|---|---|---|
| Frame Considerations / Weather Stripping | The U-Factor is a measure of heat loss and transfer, and can be applied to doors, windows and skylights to determine its energy efficiency with a lower rating indicating higher energy efficiency. Air Leakage signifies the rate of air movement around a window, door or skylight with a value of 0.1 to 0.3. A lower air leakage rating indicates better sealing.<br><br>The Condensation Resistance Rating signifies how well a window resists the formation of condensation on the interior surface. A higher condensation resistance indicates better resistance. | **National Fenestration Rating Council.** This inspection identifies the U-Factor, Air Leakage and Condensation Resistance of a product.<br><br>**Insulating Glass Certification Council (IGCC).** Certified products are the best for energy efficiency, noise reduction and thermal insulation. | |
| Locking | Enhanced locking mechanisms are integrated into windows and doors to ensure they remain securely closed during storms and provide added security for homeowners from break-ins.<br><br>Multi-point locking systems distribute force more evenly along the frame, reducing the risk of failure under high wind loads. | **North American Fenestration Standard (NAFS) & Installation Standards.** Installation of door locks can affect the integrity of the whole door – and the guidelines in the standards ensure that a door and its locking mechanisms are properly installed to maintain performance over time. | |
| Size Considerations | To maintain the integrity of products, ensure that transportation staff are aware of what precautions should be taken while handling large materials.<br><br>In advance of delivery, ensure that an off-loading zone is prepared and that areas for the proper storage of large products are designated. Consider potential weather conditions when selecting locations for delivery and storage.<br><br>A window or door's size can affect its ability to withstand high winds and impacts. Larger windows have more surface area and may be more prone to pressure from wind or debris; smaller windows can be more resistant to wind and exterior forces. | **Personal Protective Equipment as described in OSHA Regulation 1910.132.** WDMA recommends transportation staff utilize OSHA Regulations when handling large products.<br><br>**North American Fenestration Standard (NAFS) & Installation Standards.** These guidelines use material strength and intended use to determine a product's maximum size that does not compromise functionality or safety. | |

| | | | |
|---|---|---|---|
| Installation Considerations | It's important to ensure that installation teams follow manufacturer guidelines and use recommended materials and tools specific to a product.<br><br>Make sure installation teams utilize proper anchoring and framing for windows, doors and skylights according to building codes.<br><br>Have installation teams check that sealant is compatible with window or door frame material and is applied correctly.<br><br>After installation, conduct a water infiltration test to check for leaks around the seal.<br><br>Inspect windows, doors and skylights periodically for signs of wear and tear that may cause leaks.<br><br>In cold climates, consider technology such as self-sealing door gaskets and airtight door jams to prevent drafts and heat loss between the floor and door.<br><br>Proper installation impacts a window or doors performance, which in turn affects weather sealing. | **North American Fenestration Standard (NAFS).** This provides applicable testing and rating requirements of fenestration products – including water penetration resistance performance, sealants and structural support. | |

## THE WDMA HALLMARK CERTIFICATION PROGRAM

Want to quickly check all these items off your list? Look for products that meet WDMA Hallmark Certification.

WDMA-Hallmark Certified windows, doors and skylights offer Total Product Performance by conforming to multiple industry standards: The North American Fenestration Standard, National Fenestration Rating Council, Insulating Glass Certification Council and Safety Glazing Certification Council.

## EMAIL THIS GUIDE TO YOURSELF

**Click here** to receive a downloadable version of the checklist straight to your email, along with other valuable resources like this one.