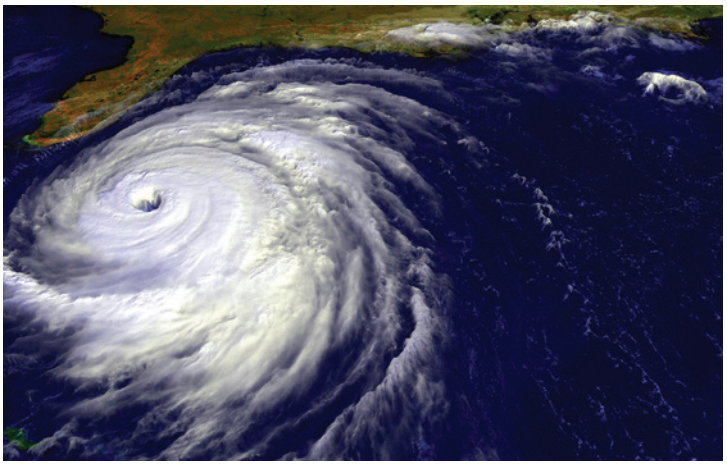


In addition to providing basic light, ventilation and beauty to a structure, windows and patio doors are expected to meet certain design, energy and glass performance standards. Understanding window and patio door performance characteristics will help with product selection and increase satisfaction.

INTRODUCTION

Windows and patio doors are designed and built to perform differently relative to environmental conditions. For example, houses in hot climates benefit from Low-E treated glass and houses in tornado or hurricane zones benefit from impact glass.

Windows and patio doors are built to withstand different levels of wind and/or water without failing. They are given performance ratings based on three different criteria:

- **Energy performance:**
  The energy-efficient characteristics of the product.
- **Glass performance:**
  The characteristics of different types of glass such as safety, light and noise transmittance.
- **Design performance:**
  The product's ability to withstand various weather conditions and other elements.

Product labeling indicates the minimum certified performance levels met by the product. If products fail to meet customer performance expectations, it may be a result of incorrect product selection, improper installation or lack of product care and maintenance. In some instances, product performance failure could be a result of a manufacturing defect in which case product warranty coverage could apply. If unsure about selecting the proper windows or patio doors, please contact us or your distributor.

Contact Us

For questions, feel free to contact us by phone or email:

- Email: customerserviceagents@jeld-wen.com
- Phone: 1-(800)-JELD-WEN/1-(800)-535-3936

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ENERGY PERFORMANCE

There are three principal ways heat energy is transferred from a warm to a cool place: conduction, radiation and convection. Modern window technology works to control these processes to manage energy transfer through a window. The total energy performance of a window is measured with a value called a U-Factor.

Conduction

Conduction is when heat is transferred through direct contact. A good example is the burning sensation you receive when you pick up a hot plate.

Insulating glass controls conductive energy with the air space between the panes of glass separated by a spacer (usually a piece of formed sheet metal). This air space prevents direct conductive transfer of energy through the glass between warm and cold environments.

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ENERGY PERFORMANCE - CONTINUED

Radiation

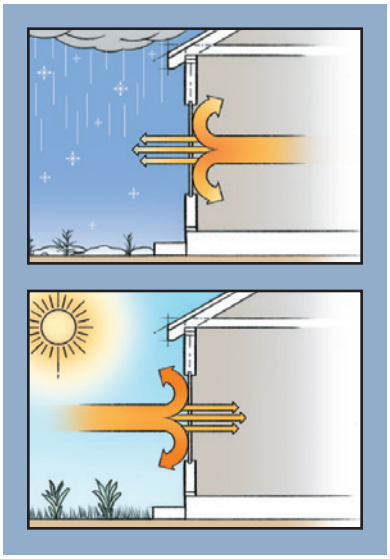
Radiation is the transfer of energy by waves or rays. Sunburn even when the air temperature is cold is a result of the transfer of radiation energy by exposure to sunlight.

Low-E Coatings

Low-E is a very thin, transparent, metallic coating applied to insulating glass at the factory. This coating is usually put on the exterior surface of the interior pane of glass (between the panes). Dual Low-E has an additional coating on the interior surface of the interior pane. It controls heat gain (or loss) by reflecting most of the radiant heat (infrared light) caused by the sun. Some coatings focus on solar heat control while others emphasize control of interior heat loss.

In cold weather, Low-E reduces the amount of heat loss to the outdoors by reflecting radiant heat back into the house.

In warm weather, the sun's energy is reflected back outside and prevented from entering the house.



A Low-E value or emissivity is the measure of how well the product reduces radiant energy transfer. Low-E values typically range from 0.04 to 0.15. The smaller value represents the best reduction of energy transfer.

Glass equipped with dual Low-E can be scratched with metal objects. Another common aesthetic concern is when replacing older Low-E glass. The new glass color (caused by the metallic coating) may not be the same color as the older Low-E glass. Call us for recommendations.

Measuring Radiant Heat Transfer

Solar Heat Gain

A Solar Heat Gain Coefficient (SHGC) is the measurement of the solar heat that passes through glass from sunlight. This measurement is expressed as a number between 0 and 1. A value of 1 indicates that all solar heat passes through, and a value of 0 indicates that no solar heat passes through. A single pane of glass typically has an SHGC of about 0.80 allowing most of the solar heat to pass through. Multi-pane (insulating) glass allows less solar heat to pass through and has a lower SHGC.

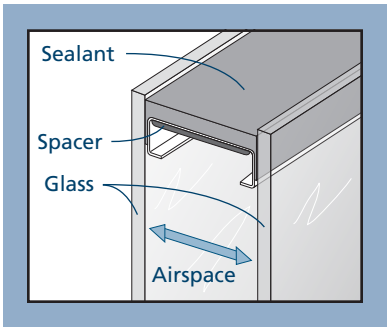
A high SHGC would be the best in cold climates where solar heat gained through glass can help tremendously with heating costs. A low SHGC can help save air-conditioning costs in warm climates by keeping solar heat out.

Convection

Convection is the transfer of heat through air movement. Many houses use convection for heating as warm air circulates through the house and gradually raises the temperature.

Insulating Glass Spacer Width

The airspace between glass panes affects the convection of an insulating glass unit. Narrow spacing between panes (or a single pane of glass) increases the risk of hot or cold temperatures passing through. Wider spacing between glass panes lowers the risk of heat or cold transfer through the glass unit. Optimum spacing occurs near 0.5".



Insulating Glass with Argon

Argon is a non-toxic, non-hazardous dense gas injected into the air space inside insulating glass units to help control convective heat transfer. A mixture of argon and air can achieve higher levels of energy performance than with air alone because compared to normal air, argon does not move around as much between the panes. This reduces heat transfer from the warm pane to the cool pane.

U-Factor

U-factor (sometimes called U-value) is the measurement of how well the window or patio door transfers heat. The lower the U-factor, the better the window reduces energy loss. Common insulating glass U-factors range from about 0.2 to 1.2. The inverse of the U-factor is the R-value, or insulating value. The R-value is calculated from the U-factor as follows: 1/U-factor=R-value.

Variation in values is due to factors such as:

- Insulating glass (multi-pane is better than single-pane)
- Insulating air space width
- Low-E coatings
- Gas (argon) in air space
- Window size and frame material

Energy Star (a United States Environmental Protection Agency/Department of Energy program) is a great resource for finding out the recommended U-factor (or other energy information) for any location in the United States. Visit their website at www.energystar.gov (search for U-factor) or call their hotline at 1-888-782-7937.

GLASS PERFORMANCE

There are several characteristics and properties of glass in window and patio door products that directly effect customer satisfaction. These characteristics include glass type, acoustical performance, visible light transmittance (the ability to pass light to the interior), ultraviolet (UV) light transmittance and glass quality.

Types of Glass

Float Glass

Nearly all residential glass is known as float glass (also referred to as flat glass), a high-quality glass made by a process where a ribbon of molten glass is fed across a bath of heated liquid, usually molten tin, in a carefully controlled environment. The highest grades are used for mirror and cabinet-type products. A slightly lower grade may contain minor blemishes such as small air bubbles or minor scratches, and is used for residential and light commercial windows and patio doors. Lower grades are considered greenhouse quality.

Float glass may be heat-treated for additional strength. There are two basic types of heat-treated glass: heat-strengthened, and fully-tempered. Heat-strengthened float glass is twice as strong as standard float glass and breaks into large fragments as does standard float glass. Fully-tempered float glass is considered safety glass.

Safety Glass

There are two types of safety glass commonly used in window products: fully-tempered and laminated.

Fully-tempered float glass is twice as strong as heat-strengthened glass and is often required by local building codes for safety reasons. Fully-tempered glass is less likely to break by impact than standard and heat-strengthened float glass. If it breaks, it shatters into many small pieces instead of larger shards as heat-strengthened and standard float glass.

For more strength, glass may be laminated, a process where two or more sheets of glass are bonded together with one or more layers of plastic membrane or liquid resin (interlayer). Laminated glass is approximately 75% to 90% stronger than standard float glass and is used to minimize penetration of airborne objects and intruders. If broken, the glass will fragment and remain attached to the plastic membrane. Laminated glass is often required in coastal areas subject to hurricane-force winds and in vehicles.

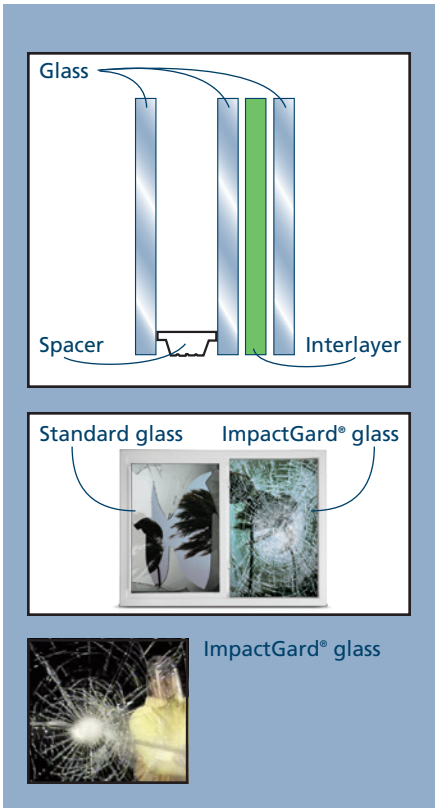


Plate and Rolled Glass

Plate glass is very strong and is commonly used in commercial structures. Rolled glass is about 50%-80% translucent, and is used in patterned glass designs such as stained glass.

Acoustical Performance

Windows and patio doors must be able to control a variety of conditions, including environmental sounds. Uncontrolled noise levels inside a structure can disrupt work, inhibit sleep, cause stress and fatigue and increase irritability.

Window and door design now includes ways to limit the transmission of noise. Windows and doors are tested and rated for the amount of noise they let pass through. Two common ratings for windows and doors are the Sound Transmission Class (STC) and Outdoor-Indoor Transmission Class (OITC) Ratings. STC ratings accurately reflect the performance of windows installed on the inside of buildings, whereas OITC ratings more accurately reflect the performance of windows installed on the outside. In both cases, the higher the number the better the acoustical performance.

Acoustical performance factors include:

- **Product mass or weight**
  Increasing the mass of a product will reduce the transmission of sound. An example is increasing glass thickness, which will increase the overall mass of a door or window, reducing sound transmission.
- **Air space thickness between panes**
  The air space between panes also limits sound transmission. Increasing the air space depth will increase the acoustical performance of the insulated glass unit.
- **Glass type**
  Different types of insulated glass units offer specific benefits to limiting sound transmission. Thick glass mutes low frequency noise (e.g., road traffic). Thinner, laminated glass controls high frequency noise (e.g., conversation).

  For very noisy areas, a laminated window made with thick panes of glass would work very well combining the low frequency acoustic properties of the thick glass with the high frequency acoustic properties of the laminated glass.
- **Air infiltration**
  A window or door's ability to block air movement will also effect sound transmission. Products with a lower air infiltration rating will also block sound more effectively.

Visible Light Transmittance

Glass production techniques and Low-E coatings can affect the amount of visible light that passes through glass.

The amount of light that passes through glass is measured and given a value between 0 and 1. The higher the number, the more light will pass through the glass.

GLASS PERFORMANCE - CONTINUED

Ultraviolet (UV) Light Transmittance

Window products containing glass with high ultraviolet (UV) protection are desired by consumers for guarding indoor furnishings against UV fading. UV fading occurs when the energy of UV radiation alters the chemical structure of dyes and other colorants. Low-E coatings can provide a reduction in UV transmittance and slow the process of fading. In addition to UV light, other causes for fading and color changes include:

- Humidity
- Dye types
- Oxygen (and other gases)
- Visible light
- Heat
- Sky conditions (sunny or cloudy)
- Window orientation

No residential glass product will completely block out all UV light and prevent fading. Various types of furnishings (wood, fabrics, paint, rugs, etc.) react at differing fading rates depending on the colorant type and its susceptibility to fading from any of these causes.

Glass Quality

Float and heat-treated glass are manufactured through processes that may result in minor blemishes (e.g. slight wavy appearance or minute visible blemishes).

Very small particles from the manufacturing process can sometimes embed into the glass surface and are difficult to see but may be detected by touch. It is important to protect glass at job sites from other building materials, and to clean the glass properly to avoid embedding these particles into the glass. For proper glass cleaning procedures, visit our website, www.jeld-wen.com for a copy of the appropriate Care and Maintenance Guide. Some manufacturers offer products with a protective film on the glass to protect glass surfaces at the job site that will peel off. Call your supplier for more information.

Through the manufacturing and shipping process, glass may collect a non-visible residue that may become visible under moist conditions. This is not considered a glass defect.

DESIGN PERFORMANCE

Windows and patio doors are designed to perform under various weather conditions and exposures. Some are designed for mild exposures and others for harsher and more extreme exposures. Products designed for mild weather or protected locations should not be installed in extreme weather areas.

When choosing a window or patio door, it is very important to consider the design and location of the structure. A large roof overhang or recessed windows may lessen performance grade requirements depending on characteristics such as the size and height of the building. Structure location determines general weather exposure and protection. For instance, a structure on a coastal bluff may need a higher performance grade than one protected by wind breaks.

Local building codes may define a minimum performance grade, but because of increased cost, it is important to select a product that does not have a performance grade higher than needed.

Manufacturers design and test their products to withstand wind loads as well as water and air leakage. Window and patio door standards help to establish minimum levels of acceptable performance for manufacturers and suppliers.

United States Standards and Certification

Two primary North American organizations developed voluntary certification programs and standards:

- The American Architectural Manufacturers Association (AAMA)
- Window and Door Manufacturers Association (WDMA)

These are trade associations of window and door manufacturers, component suppliers and test laboratories. Their purpose includes formulating and promoting high standards of performance and administering an ANSI (American National Standards Institute) accredited third party certification program for fenestration products.

Under the Certification Program, a third party administrator verifies the products are tested using the proper procedures. A minimum of two unannounced factory inspections are conducted per year to ensure products are equivalent to the samples that were tested. The manufacturer must submit samples for retesting periodically to maintain certification.

Structural standards for the AAMA and WDMA include:

- AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard (NAFS)

These structural standards:

- Provide overall performance ratings for window and door products to assist customers in selecting the appropriate products for their houses.
- Allow manufacturers to certify the performance grade of their products through independent testing laboratories for structural, air, water, and forced entry resistance performance.
- Define window products by performance class and performance grade.

DESIGN PERFORMANCE - CONTINUED

Canadian Standards and Certification

The CSA (Canadian Standards Association) established a certification program with a set of standards for windows AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard (NAFS) that is referenced by the 2010 National Building Code of Canada (NBCC). This certification program allows manufacturers to certify the performance grade of their products through independent laboratory testing. Customers can then select windows suitable for their climatic conditions, installation height, building type etc.

Window products are defined by the building size, residential being three stories or less, or not exceeding 600 square meters. Larger buildings are considered commercial. CSA A440 S1 specifies minimum ratings for each product designation based on the structure's location and exposure.

Testing

Both the U.S. and Canada use the same testing methods. They both report a separate air leakage rating. Water and structural performance are combined into one Performance Grade (PG) rating. Optional water and negative wind pressure ratings may also be used.

To meet all standards, a product must be tested in an independent laboratory to receive a performance grade. A performance grade rates the performance of a product against a set of specific tests. Higher grade numbers represent higher performance grade ratings.

Testing methods:

- Uniform Load Deflection Test:
  Determines the degree of deflection to a product when under pressure.
- Uniform Load Structural Test:
  Determines the product's ability to withstand wind pressure.
- Air Infiltration:
  Determines if the amount of air that passes through the product meets requirements.
- Water Resistance:
  Determines the windows' resistance to wind-driven rain.
- Forced Entry Resistance Test:
  Determines on a pass/fail basis if the product adequately prevents easy opening from the exterior when locked. Some areas may require higher testing levels for some window operator types.

United States and Canadian Rating System

Test results are reported in PG (Performance Grade) numbers (e.g. PG20, PG50). A window that has a PG20 rating (mild weather or protected location) means that the window passed with 20 pounds of pressure for each square foot (psf) of window.

A PG rating includes both the water test and the structural test. If the water test results in 35 psf and the structural test results in 20 psf, the window receives a PG rating of PG20.

In order to pass the air leakage test, all windows must not allow more than 0.3 cubic feet of air per minute per square foot to pass through.

Product Designation

After a product is tested and given a performance grade, it receives a product designation. When certified, the product is labeled by the manufacturer with a designation like this:

Class R-PG20-120 x 59-Type HS

Where:
R = Performance Class (Residential)
PG20 = Performance Grade (PG20)
120 x 59 = Maximum Size Tested
Type HS = Product Type (Horizontal Sliding Window)

The following tables list the code and its definition for performance class.

NAFS - 05 PERFORMANCE CODE AND PERFORMANCE CLASSES		
R	Residential	Primarily used for single family houses.
LC	Light Commercial	Typically used for low-rise multi-family dwellings, professional buildings such as doctor's offices, libraries, and motels.
C	Commercial	Primarily used for lighter use industrial buildings, factories, hotels and retail sales buildings.
HC	Heavy Commercial	Typically used buildings such as hospitals, schools, public buildings, or other buildings where heavy use is expected.
AW	Architectural	Commonly used for architectural structures such as hospitals, schools, institutions, and high-rise buildings.

NAFS - 08 PERFORMANCE CODE AND PERFORMANCE CLASSES		
R	Residential	Primarily used for single family houses.
LC	Light Commercial	Typically used for low-rise multi-family dwellings, professional buildings such as doctor's offices, libraries, and motels.
CW	Heavy Commercial	Typically used buildings such as hospitals, schools, public buildings, or other buildings where heavy use is expected.
AW	Architectural	Commonly used for architectural structures such as hospitals, schools, institutions, and high-rise buildings.

DESIGN PERFORMANCE - CONTINUED

Product Designation - continued

The following tables list the code and its definition for product type.

PRODUCT CODE-TO-PRODUCT TYPES			
AP	Awning, hopper projected windows	JA	Jalousie-awning windows
BW	Basement windows	RW	Roof windows
C	Casement windows	SGD	Sliding glass doors
DA	Dual action windows	SHW	Side hinged in-swing windows
DAHGD	Dual action hinged glass doors	SLT	Side lite
F	Fixed windows	SP	Specialty products
GH	Greenhouse windows	SKG	Skylights/glass glazed
H	Hung windows (single, double, triple)	SKP	Skylights/plastic glazed
HE	Hinged rescue windows	TA	Tropical awning windows
HP	Horizontally pivoted windows	TH	Top hinged windows
HGD	Hinged glass doors	TR	Transom
HS	Horizontal sliding windows	VP	Vertically pivoted windows
J	Jalousie windows	VS	Vertical sliding windows

Hurricane Area Requirements

Hurricanes can cause extensive property damage, which has led to the development of building code certification standards for windows and doors installed in coastal areas prone to hurricanes and strong winds. The certifications are designed to ensure structures can withstand extreme weather.

Windows and doors that can remain intact are crucial to maintaining a building's structural integrity. If a window or door breaks, wind can enter and the increased pressure can lift the roof and push walls outward.



Safe Impact-Resistance

JELD-WEN offers windows and patio doors with ImpactGard® protection, which are designed to accept impacts, and while the glass still cracks, the fragments will remain adhered to the laminated interlayer, keeping the shards within the frame.

Standard glass  ImpactGard® glass

Windborne Debris Regions

Areas from Texas to Maine subject to strong winds or hurricanes are categorized into four different windborne regions (or zones). The zone the product is to be installed in determines the type of windows and doors that must be installed to meet building codes. JELD-WEN offers products that meet the requirements for all 4 zones.

WINDBORNE DEBRIS *(As defined by ASTM E1996 and ASCE-7)*	
ZONE 1	Areas within 1 mile of the mean high tide line with winds 110 mph and up to 120 mph
ZONE 2	Areas more than 1 mile from the mean high tide line with winds 120 mph and up to 130 mph
ZONE 3	Areas with winds 130 mph and up to 140 mph; or 120 mph and up to 140 mph within 1 mile of the mean high tide line
ZONE 4	All areas with winds in excess of 140 mph (high-velocity wind zones)

Testing

ImpactGard® protection also meets the nation's toughest building codes (Missile Level D) that specify that windows must withstand a nine-pound 2x4 traveling at 50 feet per second (34 miles per hour).

TESTING REQUIREMENTS		
Windborne debris region	Impact resistance requirements for basic protection	Cyclic wind pressure requirement
ZONES 1 and 2	Must withstand Missile Level C: a 4-foot-long 2 x 4 at 40 feet per second (27 mph)	Hurricane loads up to 9,000 wind cycles
ZONE 3	Must withstand Missile Level D: an 8-foot-long 2 x 4 at 50 feet per second (34 mph)	Hurricane loads up to 9,000 wind cycles
ZONE 4 *(Impact resistance testing for Zone 4 also includes multiple hits per test unit)*	Must withstand Missile Level D: an 8-foot-long 2 x 4 at 50 feet per second (34 mph)	Hurricane loads up to 9,000 wind cycles

Certification

Products that pass the testing requirements for impact resistance are certified by various jurisdictions and labeled.

PERFORMANCE LABELING

This section shows examples of a temporary (certification strip to the right) and permanent (shown on the next page) labels used on JELD-WEN products. These labels contain energy performance and structural performance information specific to each product. Certification strip labels are temporary and are removed after final inspection. Permanent labels, if applicable, are often affixed to the frame in a protected location.

Energy Performance

Products that meet Energy Star program requirements will have a label similar to the one shown at the top of the strip. The highlighted geographical regions correspond with the product's energy performance values.

Energy performance values are displayed on the NFRC Label. This label may be found on products manufactured in the United States and Canada. The NFRC is an industry organization that focuses on developing comparative energy performance for the consumer in evaluating different products.

- U-factor (sometimes called U-value) is the measurement of how well the window or patio door transfers heat. The lower the U-factor, the better the window reduces energy loss.
- Solar Heat Gain Coefficient (SHGC) is the measurement of the solar heat that passes through glass from sunlight. This measurement is expressed as a number between 0 and 1. A value of 1 indicates that all solar heat passes through, and a value of 0 indicates that no solar heat passes through.
- Visible transmittance is the amount of light that passes through glass. It is measured and given a value between 0 and 1. The higher the number, the more light will pass through the glass.

Structural Performance

The AAMA and WDMA are the two major organizations in the United States that provide performance standards and product certification.

JELD-WEN uses the AAMA program guidelines to evaluate its vinyl and aluminum products. Products which meet the AAMA program requirements will have a temporary label similar to the one shown and a permanent gold or silver label (shown on the next page with the label details).

For wood products, the WDMA label (shown below), is located in place of the AAMA label shown on the sample certification strip.

WDMA®
HALLMARK | WINDOW AND DOOR MANUFACTURERS ASSOCIATION www.wdma.com | CERTIFIED

The manufacturer, product type and performance grade given in negative and positive loads and tested size in conformance to AAMA/WDMA/CSA 101/I.S.2/A440 are listed on the sample label This section may also contain specific information for Miami/Dade county, or other local building code requirements.

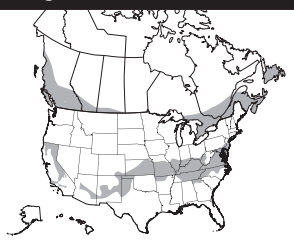
JELD-WEN labels also show order information on the bottom of the certification strip.

ENERGY STAR Qualified in highlighted Regions
ENERGY STAR en las regiones de destacados

Canada
energystar.nrcan-rncan.gc.ca

ENERGY STAR

U.S. / É.U.
energystar.gov



NFRC
National Fenestration Rating Council®
CERTIFIED

JELD-WEN WINDOWS & DOORS

Vinyl Frame
Premium Single-Hung
ZF-S Spacer CLR + LowE

4750837

ENERGY PERFORMANCE RATINGS
EVALUACION DE RENDIMIENTO ENERGETICO

U-FACTOR (U.S./I-P) FACTOR-U	SOLAR HEAT GAIN COEFFICIENT COEFICIANTE: GANANCIA DE ENERGIA SOLAR
0.32 (U.S./1-P) | 1.8 (Metric/SI	0.33

ADDITIONAL PERFORMANCE RATINGS
EVALUACION SUPLEMENTARIA DE RENDIMIENTO

VISIBLE TRANSMITTANCE TRANSMISION DE LUZ VISIBLE	
0.57	

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information.
Este fabricante estipula que estos valores cumplen con los procedimientos aplicables de NFRC para determinar el rendimiento total del producto. Los valores usados por NFRC son determinados por un conjunto fijo de condiciones ambientales y un tamano de producto especifico. NFRC no recomienda ningun producto y no garantiza que el producto sea adecuado para un uso especifico. Consulte con el folleto del fabricante para el uso apropiado de este producto. www.nfrc.org

This fenestration product has been certified by the manufacturer to meet the air infiltration requirements of Section 116(a) 1, 2005 California Energy Standards.

AAMA® **American Architectural Manufacturers Association**

Manufacturer stipulates conformance to the applicable standards
JELD-WEN Windows & Doors
Premium Single-Hung
H-C35 Size tested 56" x 96"

Tested to: AAMA/WDMA/CSA 101/I.S.2/A440-05

Remove Only After Final Inspection - Retain Label For Your Records

Order	Line	Batch	Seq	Build Date
656903	2	TESTLAS	PV0006	12/21/09

PERFORMANCE LABELING - CONTINUED

United States

Sample of a Permanent AAMA label:



Product details on this label are given on the third line down in the left column where:
HS = Horizontal Sliding window
R20 = Residential application tested to PG20
120 x 59 = Maximum size tested

NFRC CPD Number

The NFRC CPD (Certified Product Directory) number is located on the permanent AAMA label (shown above and circled) or located in the glass etching found in the corner of the window or patio door (shown to the right and circled).



Canada

CSA Certification Label
In Canada, look for certification information on a CSA or other label (permanent or temporary) on the product. The CSA Certification Label contains the CSA logo, information about the manufacturer, the product and the certification ratings for that product.

WEBSITES AND WARRANTY INFORMATION

For more information about window and patio door performance, visit the following websites:

- Window and Door Manufacturers Association (WDMA): www.wdma.com
- American Architectural Manufacturers Association (AAMA): www.aamanet.org
- Canadian Standards Association International (CSA): www.csa-international.org
- National Fenestration Rating Council: www.nfrc.org www.windowratings.org
- Energy Star: www.energystar.gov
- Office of Energy Efficiency and Renewable Energy: www.eere.energy.gov/consumer
- Glass Association of North America: www.glasswebsite.com
- Efficient Windows Collaborative: www.efficientwindows.org
- Environmental Protection Agency: www.epa.org

Some information in this document was derived from the following sources:

- AAMA/WDMA/CSA 101/1.5.2/A440 NAFS (North American Fenestration Standard)
- Cardinal® IG Technical Service Bulletins
- CSA A440S1-09 Canadian Supplement to AAMA/WDMA/CSA 101/1.5.2/A440 NAFS
-

PRODUCT WARRANTY INFORMATION

Proper window selection is crucial to product satisfaction. It is important to use the right product with the right performance grade for a particular exposure. Proper handling, installation and care and maintenance are also essential to satisfactory window performance and long life. In the event of product failure due to a defect in the manufacturer's workmanship or materials, warranty coverage could apply.

Product failure due to improper installation, improper maintenance and acts of nature (hurricane, tornado, earthquake, flood, etc.) are excluded from most manufacturers' warranties. See your warranty for full details. If you do not have a copy of your warranty, visit our website: **www.jeld-wen.com**