

# Window Glossary

## A

**Air Chambers:** Small honeycomb spaces within the sash and frame which help to insulate and strengthen the window.

**Air infiltration:** Amount of air that passes between a window sash and frame. Measured in terms of cubic feet of air per minute, per square foot of rough opening. The lower the number, the less air allowed.

**Argon gas:** A non-toxic gas –odorless, colorless, and tasteless – which is six times denser than air. Used to replace air between glass panes (lite) to reduce temperature transfer.

**Awning window:** One or more sash hinged or pivoted at the top; swings out for ventilation.

## B

**Balance Covers:** Covers the balance cavity holding the coil-spring balance system inside the jamb.

**Balance Spring:** A device for counterbalancing a sliding sash, generally associated with a double hung window, so that it can be held open at a position

**Balance Shoe:** Part attached to bottom of balance that attaches balance to sash. A bar or pin on the sash fits in a “slot” in the shoe.

**Basement window:** A sash unit, usually of the in-swinging awning or hopper type, used for basement or cellar sash openings. Any operating type may be tested as a basement window provided they are intended to be installed at or below grade to ventilate a basement or cellar area.

**Bay window:** Angled combination of three windows that project out from the wall of the home. Windows are commonly joined at 30- or 45-degree angles.

**Blind Stop:** A sash or window frame member applied to the exterior vertical edge of the side and head jamb in order to serve as a stop for the top sash and to form with the brick molding and/or casing a rabbet for the storm sash, screens, blinds, and shutters.

**Bottom Rail:** The bottom horizontal member of a window sash.

**Bow window:** Angled combination of windows in three-, four- or five-panel configurations. Windows are attached at 10-degree angles to project a more circular, arced appearance.

**Brick Molding:** A standard milled trim piece to cover the gap between the window frame and masonry in a masonry opening.

**Buck:** A jamb stud or header; wood buck.

**Buck Opening:** The opening in a wall formed by the rough framing members; also stud opening.

**Butt Joint:** A joint formed by square edge surfaces (ends, edges, faces) coming together; end butt joint, edge butt joint.

**Butyl:** A rubber material that seals the glass to the spacer, creating an airtight and water-tight IG unit. Butyl has the lowest gas permeability of all rubbers.

## C

**Cam Lock and Keeper:** The mechanisms which pull the sash together when placed in the locked position.

**Casement window:** Side hinged or pivoted, they contain one or more sash, glass panes and transoms in various combinations. They open inward or outward for ventilation.

**Casing (Trim):** Exposed molding or framing around a window or door, on either the inside or outside, to cover the space between the window frame or jamb and the wall.

**Caulk:** To seal cracks and joints around window and door frames to prevent leakage of water and air.

**Caulking:** A mastic compound for filling joints and sealing cracks to prevent leakage of water and air; commonly made of silicone, bituminous, acrylic, or rubber based materials.

**Center of Glass U- and R-values:** The U- and R-values measured from the center of the glass to 2-1/2" from the frame.

**Circle Top Window:** A window having a curved (radius) top and a flat bottom. The shape of the window is an exact half-circle with the height being exactly one half the width. Also called circle head, half-circle and half-round.

**Circle Top Transom:** A half-circle window over a door or window, with radiating bars.

**Cottage-Style Window:** Hung window (single or double) that has a smaller bottom sash (lite) than the top sash (lite).

**Condensation resistance factor:** Measure of the effectiveness of a window or glazing to reduce the potential for condensation. The higher the condensation factor, the more efficient the window or glazing system.

**Conduction:** Energy transfer from one material to another by direct contact.

**Convection:** Heat transfer by currents that flow from a warm surface to a colder one.

## D

**Dead-air space:** The space between the panes of glass of an I.G. Unit.

**Desiccated matrix:** Material used in insulating glass to absorb water vapor, which causes fogging.

**Double-glazing:** In general, any use of two thickness of glass, separated by an air space, within an opening, to improve insulation against heat transfer and/or sound transmission.

**Double-hung window:** Two operable sash slides open vertically. The sash weight is offset by a counterbalancing mechanism mounted in the window.

**Double Strength Glass:** Sheet glass with a thickness between 0.115" to 0.133" (3 to 3.38mm) or approximately 1/8" used in larger windows.

**Double Window:** Two windows separated by a mullion, forming a unit. Also called a twin window unit, or mulled window.

**Drip Cap:** A horizontal molding to divert water from the top casing of a window or door unit so that the water drips beyond the outside of the frame.

**Dual-action window:** Sash tilts into the room from the top for ventilation and swings in from the side for cleaning of the outside glass.

**Dual window:** Configuration includes interior primary/exterior secondary window; exterior primary/interior secondary; and interior primary/exterior primary. The primary window protects the building's interior from climatic elements; the secondary window is used in tandem with the primary window for energy conservation and acoustical enhancement.

## E

**ENERGY STAR®:** ENERGY STAR® is an independent U.S. government program establishing a standard set of guidelines to recognize the energy efficiency of various products. ENERGY STAR® guidelines are used in conjunction with a variety of building materials, including windows and patio doors. Over the past ten years, ENERGY STAR® guidelines have helped double the efficiency of windows they endorse.

**Extension Casement Hinge:** A hinge for a casement window, which provides clearance for cleaning the two sides of the

sash from the inside.

**Extension Jambs:** Flat parts made of vinyl, wood, or other materials which are attached to the inside edges of a window jamb to extend it in width to adapt to a thicker wall.

**Eyebrow Window:** Used to identify certain arch-topped or radius topped windows that have a curved top like the shape of a human eyebrow.

## F

**Fenestration:** The placement of window openings in a building wall; one of the important elements in controlling the exterior appearance of a building, its ventilation, light, etc.

**Fixed window:** Glazed frame or a fixed sash and frame installed into the opening and not operable; includes dual windows. Can be re-glazed or replaced in the field.

**Frame:** Outside member of a window (or door) unit which encloses the sash. Composed of side jambs, head jamb and sill.

**French door:** Hinged doors within an overall frame designed so that one or more of the panels are operable, swinging either to the inside or the outside.

**Friction Hinge:** A window hinge, which remains open at any position by means of friction in the hinge.

**Fusion-welded:** The process of joining materials by melting them together with extreme heat (over 500°F), resulting in the materials uniting into a one-piece unit.

## G

**Geometric:** Specially designed windows classified as either Straight line Geometrics such as rectangles, triangles, trapezoid, octagons, pentagons, etc., or Radius Geometrics which include half-rounds, quarter-rounds, full-rounds, sectors, ellipses, eyebrows, etc.

**Glass:** A transparent, translucent or opaque material formed by fusing silicates with soda or potash, lime and sometimes various metallic oxides.

**Glass (Insulating):** Two sheets of glass bonded together in a unit to enclose a captive air space. Organic units have a hollow metal spacer around the perimeter and edges are sealed with an organic substance. These spacers must be filled with desiccant, which is a chemical to absorb and hold any moisture trapped in the air space. The latest insulating units use butyl, Silicone Foam and other non-conductive spacers at the edge for reducing thermal conduction. (Also called Warm Edge.)

**Leaded Glass:** Small, usually irregular panes of glass, sometimes vari-colored, joined together by lead or zinc muntins and bars and used primarily for decorative purposes; zinc bar glazing.

**Plate Glass:** Glass from which surface irregularities have been removed by grinding and polishing so that surfaces are approximately plane and parallel; also polished plate glass.

**Glazing:** Process of sealing glass to the sash. Also, the act of installing the glass in a window sash.

**Glazing (Single):** A single sheet of glass installed in a window sash.

**Glazing (Double):** A single glazed sash with an additional glass panel installed on the sash to provide an air space between the two lites of glass. The second glass can either be removable (RDG) or fixed and can be installed on either the inside or outside of the sash. Double-glazing differs from insulating glass in that there is no positive seal around the edges of the two lites of glass to provide a true dead air space and there's no desiccant within the unit to absorb and hold moisture.

**Glazing (Triple):** A sash glazed with three lites of glass, enclosing two separate air spaces. This can be accomplished by

applying a storm panel that is glazed with insulating glass or on some units by applying inside and outside storm panels to a single glazed sash.

**Glazing Bead:** A removable trim that holds the glass in place in a window sash.

**Glazing Block:** A small, hard rubber block placed around the edges of the glass unit in a window sash to position the glass and prevent it from shifting.

**Glazing Tape:** Double-sided tape used to adhere glass to sash and form an airtight, watertight seal.

**Gliding Window or Doors:** Same construction as a sliding window. The moving sash generally travels on rollers.

**Greenhouse (garden) window:** Three-dimensional, five-sided structure, with provisions made for supporting plants and flowers in the enclosed space outside the plane of the wall. Operating sash are available.

**Grids:** Decorative horizontal or vertical bars installed between the glass panes to create the appearance of the sash being dividing into smaller lites of glass.

**Grilles:** Ornamental or simulated muntins and bars which don't actually divide the lites of glass. Generally made of vinyl and fit on the inside of the sash against the glass surface for easy removal. Grills or grids between the glass are usually made of aluminum and sealed inside the insulating glass unit.

## H

**Half Screen:** A screen, which does not cover the entire opening of a window. Used on the bottom half of single hung units and on the operating sash of single sliders.

**Head:** The top or upper member of any elementary structure; in windows, it refers to the top of the frame, as in Round Head Window; head jamb or header.

**Head expander:** A vinyl shape cut the width of a product and placed on the head, fitting over it snugly. This piece is used as a filler to expand or lengthen the unit from the head and take up the gap in the opening between the unit and the opening in the unit.

**Head Board:** A flat board cut to fit the contour of a bay or bow window and used to affix to the top of the window unit.

**Heat Mirror:** A thin transparent insulating film that is inserted between double glazing which permits transmission of visible light but reflects far-infrared radiation.

**Heat Transfer Coefficient (U-Value):** A value indicating the rate of heat flow through a building construction, expressed in units of 'Btu/h per square foot of surface per degree F. difference between indoor and outdoor air temperature.' This is numerically equal to the 'inverse of the sum of R-values' for the construction.

**Hinge:** A moveable joint enabling a window or door to swing open.

**Hopper window, top-hinged:** One or more sash hinged or pivoted at the bottom edge and projecting inward from the plane of the window at the top.

**Horizontal sliding window:** Single or two adjacent horizontal sashes in a sealing or weathering frame sash. Slide can be single, picture, bi-part center or double.

**Hung Window:** Window with one or more hanging (counter balance) sashes.

## I

**Infiltration:** Leakage of outdoor air into a house, such as through cracks around sash or window frame.

**Installation Fin or Flange:** A vinyl or metal flange inserted into or an integral part of the side and head jambs of a window unit which is used for installing it in an opening. It also affords a weather seal or flashing around the perimeter of the

window frame.

**Insulating Glass:** Double or triple glazing with an enclosed, dehydrated, and hermetically sealed air space between the panes; the space is commonly from 3/16" to 7/8".

**Insulated Window:** A window with multiple glazing that provides one or more air spaces between layers of glazing.

**Intercept® Spacer System:** Spacer system using a U-channel design to reduce the number of conduction paths.

## J

**Jal-awning window:** Multiplicity of top-hinge sash arranged in a vertical series within a common frame, each operated by its own control device which swings the bottom edges of the sash outward.

**Jalousie window:** Series of overlapping, horizontal louvers, which pivot simultaneously in a common frame. Upon opening, the bottom edge of each louver swings toward the exterior and the top edge swings toward the interior.

**Jamb:** A vertical member at the side of the window frame; also refers to the horizontal member at the top of the window frame, as in Head Jamb and Window Jamb.

## K

**Keeper:** The part of a window lock, mounted on an opposing surface of the window, that the lock arm locks under or into to pull the sash into a locked position and fully releases it when opened.

**Knocked-Down (K.D.):** Not assembled; parts for a window (or door) frame pre-manufactured for assembly at a later date on the job-site.

**Keeper Rail:** The horizontal section of the sash where the keeper is attached.

**Keeper Stile:** The vertical section of the sash where the keeper is attached.

**Krypton Gas:** An inert, odorless, colorless, tasteless, non-toxic gas which is about 12 times more dense than air. It is used to replace air between the glass panes to reduce temperature transfer and deter convection. Used when a higher performance is desired than that produced with Argon gas.

## L

**Latch (Catch/Lock):** A device which holds a window shut, such as the latch at the meeting of a double hung window or one mounted on the style of casement windows, often referred to as a lock.

**Laminated glass:** Two or more pieces of glass bonded together with a plastic interlayer.

**Lexan:** A trade name for glazing material, which is extremely resistant to breakage. Lexan is a registered trademark of G.E.

**Lift Rail:** Handle for raising the lower sash in a double hung or single hung window.

**Lite (Light):** A window; a pane of glass within a window. Double-hung windows are designated by the number of lites in upper and lower sash, as in six-over-six. This typically spelled "Lite" to differentiate from sun light or other sources of light that shine through a window.

**Lock:** A fastening device in which a bolt is secured and can be operated by a key. Commonly used to refer to Latches or Catches.

**Lock Rail:** See Meeting Rail

**Louvered Window:** A window having louvers or slats that fill all or part of the opening. See Jalousie Window.

**Low-E (emissivity) glass:** Glass with a transparent metallic coating applied onto or into the surface. The coating allows short-wave energy to pass through, but reflects long-wave infrared energy, which improves the "U," or heat transfer, value.

## M

**Main Frame:** The head, sill and jambs sections of a window.

**Masonry Opening:** The opening in a masonry wall to accept a window or door unit, the same as a rough opening in a frame wall.

**Mechanically Fastened Frame:** Refers to frames fastened with screws.

**Meeting Rail (Lock Rail):** One of the two horizontal members of a double-hung sash, which come together.

**Meeting Stile:** The vertical member in a pair of stiles, as in abutting casement windows.

**Miter Joint:** Two members joined at an angle, commonly 45 degrees.

**Mullion:** Vertical or horizontal divisions or joints between single windows in multiple units. Can be either decorative or functional (structural). Decorative only versions are also mull casings or covers.

## O

**Obscure Glass:** A glass (frosted, etched, fluted, ground, etc.) for privacy, light diffusion, or decorative purposes.

**Operable Window:** Window, which can be opened for ventilation.

**Operator:** Crank-operated device for opening and closing casement or Jalousie windows.

**Oriel Window:** A window projecting from the wall and carried on brackets, corbels or cantilever. Similar in appearance to a Bay Window. The term is also applied to a style of window with a smaller top sash than its bottom sash. It is the opposite of a cottage-style window.

**Outside Casing:** Trim or molding around a window or door on the exterior of the house. Casing usually refers to a flat board trim, typically, 3" or 4" in width.

## P

**Pane:** A sheet of glass for glazing a window. After installation the pane is referred to as a 'lite' (light) or 'window lite'.

**Parting Bead:** A vertical strip on each jamb that separates the sashes of a double-hung window.

**Patio door:** A glass door that slides open and close on adjustable tandem rollers. Available in 2- or 3-lite configurations with the operable panel available in any position.

**Picture Frame Casing:** The use of trim casing on all four sides of the interior of a window, resembling a picture frame when installed.

**Picture window, slider:** Horizontal sliding window with one or two moving sash located on one or both sides of a fixed panel to make up a two- or three-panel window.

**Picture window, fixed:** Non-operating window consisting of a frame and glass only.

**Pivot Pin (Pivot Bar):** Part mounted on or in the end of the sash that fits into balance shoe and from which the sash may be tilted or pivoted in.

**Pivoted windows:** Vertical or horizontal, they consist of a sash pivoted either at head and sill or at the jambs in the center of the main frame, which reverses or rotates a full 360 degrees around its vertical and horizontal axis. When rotated 180 degrees, for the purpose of cleaning the outside surfaces, it also provides a weather seal.

**Plate Glass:** High quality, ground and polished glass sheet with thickness from 1/8" to 1-1/4" (3.2mm to 31.8mm).

**Plexiglas (Acrylic):** A trade name for a clear, durable sheet plastic made of acrylic; used for safety glazing and for inside storm panels.

**Pocket Sill:** A deep sill (frame) design that completely surrounds the bottom edge of the sash in the closed position.

**Prime Sash:** The balanced or moving sash of a window unit.

**Projected Window:** An awning type window that swings either inward or outward at the top or the bottom. The 'PIB' or 'projected in at bottom' window can be cleaned from the inside.

**Pull:** A handle for opening a window.

**Push Bar:** Used on awning and other projecting sash windows for opening and closing instead of a crank (gear) operator.

**PVC (Polyvinyl chloride):** An extruded or molded plastic material used for window framing and as a thermal barrier for aluminum windows.

## Q

**Quarter Round Window:** Stationary or operating window with glass shaped as a quarter circle; it is often divided into separate panes by a removable grill, installed on the interior or grille between the glass.

## R

**Radiation:** Energy released in the form of waves or particles, due to a change in temperature within a gas or vacuum. (Usage—"Short wave radiation" refers to energy emitted from a high temperature source, such as the sun; "long wave radiation" refers to the energy emitted by low temperature sources, such as the human body).

**Rail:** Horizontal members of a window sash or door panel.

**R-Value (Thermal Resistance):** A measure of the resistance a unit of heat has in flowing through a given material or construction; a higher value indicates a better heat insulating property. The R-value of an ordinary single-pane sash with 15 mph wind on one side is about 0.9.

Window Types	U-Values	R-Values
Vinyl	0.3	3.33
Wood	0.4	2.5
Wood/Aluminum Clad	0.7	1.43
Aluminum Thermal Break	1	1
Aluminum	1.9	0.53

**Rough Opening:** The opening left in a frame wall to receive a window or door unit. It is formed by the jack studs on each side, which supports the header across the top. The rough sill at the bottom is supported by cripples. The rough opening generally allows \_" or more in each dimension in excess of the window or door unit dimension. Openings in a brick walls are known as masonry openings.

**Rough Sill:** The horizontal rough frame member, usually a 2x4, which forms the bottom of the rough opening. It is toe-nailed into the jack studs and is supported by cripples.

## S

**Sash:** A single assembly of stiles and rails in which the lites of a window are set. The framework holding the glass in a window unit. Frame and glass.



**Glazed Sash:** A sash in which the glass has been installed.

**Open Sash:** A sash in which the glass has not been installed.

**Sash and Frame:** A window and its cased framing.

**Sash Balance:** A device for counter-balancing a sash of a double-hung window to hold it in the up position. There are four basic types. Spiral- A balance using spirally wound spring. Spring- A balance using a spring for counter-balancing; introduced in the 1980's. Coil Tape- (Pullman Balance, Overhead Balance, Omega) A coiled steel tape under spring tension for balancing the sash, located in the head jamb of the window frame. Counterweight- The most common type of balancing system in older homes, utilizing a weight held by a sash rope or chain over a pulley.

**Sash Cord:** In older windows, the rope used to connect the sash with its counter weight.

**Sash Crack:** The opening between the operating sash and the frame of the window.

**Sash Lift:** A handle for raising the lower sash.

**Sash Lock:** Generally, a cam-action type lock applied to the rails of a window or at the open edges of a projecting window to pull the rails tightly to the frame, both for security and weathertightness.

**Sash Stop:** A molding that covers the joint between window sash and the jamb.

**Screen-Wire Cloth:** A close-mesh woven screening material of metal, plastic or fiberglass for a window screen, to block the entry of insects but permit light, air and vision through the screen.

**Sealant:** A compressible plastic material used to seal any opening or junction of two parts, such as between the glass and its sash, commonly made of silicone, butyl tape or polysulfide.

**Seat Board:** A flat board cut to fit the contour of a bow or bay window and installed between the sills and the flat wall surface, providing a seat or shelf space.

**Shading Coefficient:** The ratio of solar heat that is transferred through a glazing material relative to the solar heat transferred through 1/8" clear glass. The lower the number the more efficient the window is at reducing solar heat gain.

**Shims:** Wood wedges (often wood shingles) used to position the window or door unit in the rough opening or masonry opening in a square, level and plumb position during (and after) installation.

**Side Jamb:** The upright vertical member forming the sides of the frame of window or door unit.

**Side Lite (Light):** A fixed, often narrow, glass window next to a door opening (or window).

**Sill:** The horizontal member at the bottom of the window frame; a masonry sill or sub-sill can be below the sill of the window unit.

**Sill Course (Soldier Course):** The row of bricks, cement blocks or stones laid across the bottom of a masonry opening which lie under the outside edges of the window sill.

**Sill Extender:** An extrusion that is attached to the bottom of the window to cover the gap between the sill and the rough opening.

**Single-Hung Window:** A window that is similar to a double-hung window except that the top lite (light) is fixed (stationary).

**Single-Strength Glass:** Glass with a thickness between 0.085" to 0.100" (2.16mm to 2.57mm) or approximately 3/32".

**Skylights:** Windows placed at an angle in the ceiling or roof to make a room lighter and to appear larger.

**Slider Window:** A window in which the sash move horizontally. Sliders are available in a 2- or 3-lite configuration, with the 3-lite having operable end vents.



**Sliding door/patio door:** One or more panels of glass within an overall frame designed so that one or more panels move in a horizontal direction. Some panels are sliding, some are fixed.

**Sliding Sash:** A window that moves horizontally in grooves or tracks.

**Sloped sill:** The sill of the window that has a downward slope to the outside. This sill has sufficient degree of slope to aid in water runoff.

**Snap-In-Grid:** Wood or plastic removable divided lites (lights) for sash and windows.

**Solar heat gain:** Percentage of heat gained from both direct sunlight and absorbed heat. The smaller the number, the greater the ability to reduce solar heat gain.

**Spacer:** The material used around the edges of an insulated glass unit to separate the panes of glass. They may be hollow metal tubes of aluminum or steel, or non-conductive materials such as silicone, butyl, etc. or a combination of materials.

**Spacer Blocks:** See glazing Block.

**Specialty or Special-Shaped Window:** A window of a “non-standard” shape of construction such as a triangle-shaped window, round or curved-shaped window or with unusual lite (light) arrangements, etc.

**Spline:** For screening, a small strip of metal or flexible tubing or gasket material that fits into a groove in the screen frame to secure the screen cloth.

**Stacked Window Units:** A vertical (combined) grouping of awning, hopper, casement, or non-operating windows to form a large, multiple unit.

**Stationary Sash:** A fixed sash; also referred to as a picture, studio, vista or view sash.

**Stile:** The upright or vertical outside members of a window (sash) or door panel, blind, screen or shutter.

**Stool:** The inside horizontal trim member at the bottom of the window frame, which rests on the sill. The shelf-like part that projects into the room. This is a common inside trim method used on wood double-hung windows, sometimes called the “inside sill”.

**Stop:** A trim member attached to the window frame to stop the sash of a projecting window when closed to prevent it from swinging through the opening. It also covers the perimeter crack between the sash and the window frame in double-hung and sliding windows and prevents the sash from coming out of the frame. Stops used at the top or bottom of the balance channel prevent the sash in hung windows from hitting when opened.

**Studs:** Vertical wood framing members which form a frame wall. In normal construction, these are 2x4's about 8' long.

## T

**Tempered Glass:** Special heat-treated, high-strength safety glass which shatters into pebble-sized particles but not into slivers, when broken. Glass with a surface compression of not less than 10,000 psi, or an edge compression of not less than 9,700 psi..

**Thermal Barrier:** A strip of non-conducting material, such as wood, vinyl or foam rubber, which is used to separate the inside and outside surfaces of a metal window sash or frame, or a metal door or sill to stop the conduction of heat to the outside (which results in a cold inside surface). Vinyl windows, because of their thermal efficiency, do not require a thermal barrier.

**Tilt Latch:** Mechanism that unlocks the sash and allows it to tilt in from the main frame.

**Tilt Pins:** A metal or hard plastic nail-like pin fastened to the sash to allow it to engage the balance shoe and from which the sash may tilt or pivot in. See pivot pin.

**Tilt window:** Hung window with sash that tilts into the room for interior washing.

**Tinted Glass:** Glass that has been given a slight shading or coloring (tint) to it, usually to control sun light in very bright, high intensity sun locations. There are many colors available such as bronze, gray, green, blue, etc.

**Top Roller Guide:** Hardware fastened to the top of a sliding door and which contains a roller which glides in the door's overhead track.

**Total Unit U- and R-values:** The U- and R-values of the window calculated from the average of the center of glass, edge of glass and frame U- and R-values. It is the reciprocal of the R-value.

**Transom:** Generally refers to an opening or stationary sash above a door or window which serves as a similar purpose to a side lite. A transom joint is the horizontal joining area between two window units, which are stacked one on top of the other.

**Triple Glazing:** Three panes of glass with two air spaces between, commonly consisted of an insulating glass with separate storm sash. Also available as an Insulating Window in a single frame.

**Tropical awning window:** One or more sash hinged or pivoted at the top and operated by one control device, which swings the bottom edge of the sash away from the plane of the frame.

## U

**"U" factor:** A value indicating the rate of heat flow through a building construction (combination of materials), expressed in units of 'Btu/h per square foot of surface per degree F. difference between indoor and outdoor air temperature. 'This number is numerically equal to the 'inverse of the sum of R-values' for the construction. Hourly rate of heat transfer for one square foot of surface when there is a temperature difference of one degree F or the air on the two sides of the surface; also known as the "U" value or heat transmission coefficients. The lower the U-value, the slower the rate of heat flow and the better the insulating quality.

Window Types	U-Values	R-Values
Vinyl	0.3	3.33
Wood	0.4	2.5
Wood/Aluminum Clad	0.7	1.43
Aluminum Thermal Break	1	1
Aluminum	1.9	0.53

**Ultra-Violet:** Type of radiation with wavelengths shorter than those of visible light and longer than those of X-rays. Causes sunburn, fading and breakdown of fabric, wood, furniture and other exposed surfaces.

**United Inches:** The sum in inches of the width and the height of a window unit. Common "call size" for replacement windows.

## V

**Vent-lok:** Latch mechanism on the interior face of the sash which retains the window in a partially open position for ventilation.

**Venting Window:** Operating window, such as a venting awning, etc. One that opens for ventilation.

**Vertical Sliding Windows:** Manually operated sash move vertically in relation to either fixed or similarly operating sash within a common frame. They're held in one or more positions by mechanical means, instead of conventional, hung-window balancing devices.

**V-Groove:** A V-shaped groove cut into the surface of a glass pane for decorative purposes.

**Visible Light Transmittance:** The percentage of light that is transmitted through glass in the visible light spectrum (380 to 720 nanometers). The higher the number the higher the percentage of visible light transmitted through the window.

## W

**Weatherstrip:** A strip of resilient material for covering the joint between the window sash and frame in order to reduce air leaks and prevent water from entering the structure. Many types—woolpile, bulb, fin, leaf, etc. Older types include metal, foil, and felt strips (used primarily on doors). Material used to form a weather-resistant seal around operable sash.

**Weephole:** Small holes drilled along the bottom edge of storm sash, combination storm-screens, or windows with “pocket” sills to permit moisture condensation or wind-driven rain to drain away from the sill to the outdoors.

**Window:** A glazed opening in an external wall; an entire unit consisting of a frame, sash, and glazing and any operable elements.