FIBERGLASS WINDOWS & DOORS

Engineered for Efficiency. Designed for Luxury.

EnerLux WINDOWS & DOORS

Combining engineered durability, high performance energy efficiency and aesthetic beauty for today's world.

Why Fiberglass? The Superior Choice.

In the world of windows and doors, fiberglass stands out as the pinnacle of performance and durability. Our EnerLux Fiberglass Window and Door catalog showcases a collection designed to enhance your home's energy efficiency, comfort, and aesthetic appeal. Unlike traditional materials like wood or vinyl, fiberglass offers unmatched strength, longevity, and resistance to the elements.

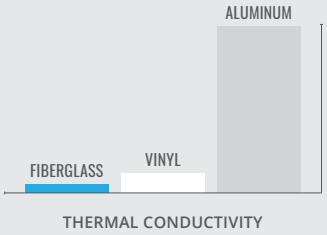
Experience the Difference with EnerLux: Engineered for Efficiency. Designed for Luxury.

The EnerLux Window Difference

1. The thick walls of our fiberglass pultrusions allow us to build bigger and stronger windows with higher performance ratings.
2. Solar tuned double-pane and triple-pane glazing for the ultimate in energy efficiency.
3. Chemically fused corners with our proprietary S2C adhesive creates stronger corners with tighter miters.
4. Triple weatherstrip virtually eliminates all air and water infiltration.
5. CNC utilized for all frame miter cuts and hardware location drilling to ensure dimensional integrity.

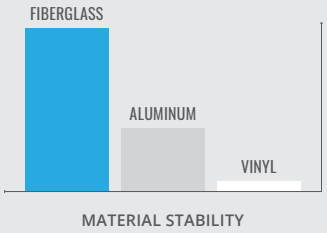
Energy Efficiency

- 500x lower thermal conductivity than aluminum, so it doesn't allow heat or cold from the outside into your home
- Fiberglass uses 78% less embodied energy than aluminum and 39% less than vinyl to manufacture



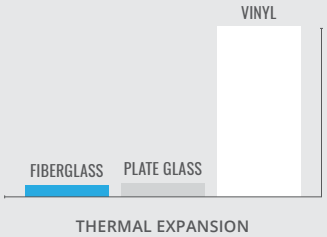
Superior Strength

- Eight times stronger than vinyl
- Twice as strong as aluminum
- Because of the strength of fiberglass, the frames are slimmer, allowing more visible glass area in each window



Expansion/Contraction

- 10x more stable than vinyl in temperature changes
- Nearly identical expansion and contraction rates as plate glass, which means tighter seals against weather and longer lasting



Precision-Engineered for Superior Insulation

Industry Leading Performance

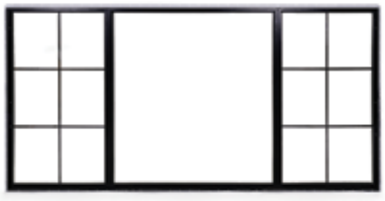
Every EnerLux window is constructed with long-term performance in mind. Dedication to consistent, high-quality workmanship and attention to quality sets EnerLux apart from the competition.

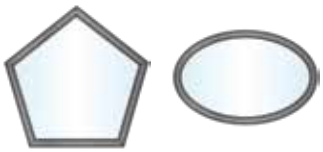
- Manufactured with pultruded fiberglass (a 100% true fiberglass product)—8x stronger than vinyl and twice as strong as aluminum.
- Near zero expansion and contraction (10x more stable than vinyl).
- Tight, CNC-mitered corners; guarantees exact dimensions and precision accuracy to ensure accurate hardware placement.
- Chemically-fused corners with our proprietary S2C two-component adhesive—precision mitering and chemically-fused corners keeps out water and maintains an air-tight seal.
- Industry-leading Cardinal Glass with their XL Edge IG technology used in every EnerLux window and door product.
- Sound transmission class (STC) glass ratings starts at 28 and up to 35 can be achieved with our standard double-pane IG packages. Comparatively a single-pane glass STC is 18-20, making for a quieter interior environment.

Superior Energy Efficiency

High-quality EnerLux fiberglass windows and doors have some of the best energy efficiency ratings on the market today. With customization options to meet a variety of budgets and efficiency needs, they are a cost-effective window choice for residential and commercial use.

- Fiberglass has thermal conductivity 500 times less than aluminum.
- Low U-Factor values, ranging from 0.29 to as low as 0.13 in our premium glass package.
- Solar Heat Gain Coefficient (SHGC) ranging from 0.70 for a double-pane window down to 0.15 SHGC for premium triple-pane windows.
- Solar-tuned double- or triple-paned glazing options and continuous weather stripping.
- Airtight window—boasting air infiltration measure of only 0.02 cubic feet per minute.
- Glass packages fully customizable to provide increased solar or weather protection to meet your project needs.





Windows

Fiberglass windows offer strength, durability, resists weather, pests, and requires minimal maintenance. Paired with industry leading Cardinal Glass, EnerLux products ensure superior energy efficiency and customizable glass options to meet your project needs.

Casement and Awning

Our contemporary casement and awning windows provide the most secure and energy-efficient option for operable windows.

Fixed Casement

Perfectly symmetrical to our casement and awning windows, our fixed casement allows for the construction of larger fixed windows while maintaining the same look.

Low Profile Picture

With its clean lines and only measuring 1½ inches in frame height, our low profile picture window is the perfect window for contemporary designs that are looking to maximize glass area.

Custom Shapes

EnerLux offers custom shapes to fit any design concept.

Accessories

Jamb Extensions | Nailing Fin

Sliding Patio Doors

With it's sleek lines and smooth operation, EnerLux offers one of the highest performing fiberglass sliding patio doors available today. Our door features a low profile, sloped fiberglass sill, double weatherstrips, adjustable ball bearing wheels, multi-point locks and double-pane and triple-pane glazing.

Sliding Patio Door Dimensions

Patio Doors				
Type	**Min. W**	**Max. W**	**Min. H**	**Max. H**
2 Panel	60″	120″	79″	120″
3 Panel	90″	144″	79″	120″
3 Panel Center Vent	90″	144″	79″	120″
4 Panel	116″	216″	79″	120″
ThinLine Patio Doors				
Type	**Min. W**	**Max. W**	**Min. H**	**Max. H**
2 Panel	60″	96″	79″	96″
3 Panel	90″	120″	79″	96″
4 Panel	116″	144″	79″	96″

Options: Two-, Three-, and Four-Panel Patio Doors;
Three-Panel Center Vent Patio Doors;
Two-, Three-, and Four-Panel ThinLine Patio Doors

TWO PANEL DOOR

THREE PANEL DOOR

FOUR PANEL DOOR

Rain

English Reed

Satin Etch

Glue Chip

Decorative Glass, Finish Options and Grilles

Decorative Glass

Add privacy where window coverings are impractical or undesirable with our many styles of obscure and tinted glass.

Finish Options

We utilize superior paint products to ensure the highest level of durability and gloss retention. We offer eight standard color finishes at no additional cost. Two tone and any custom color options are also available for an additional charge.

Standard Color Options

DOVE WHITE

OFF WHITE

TAN

SANDSTONE

TERRA BRONZE

CHARCOAL GRAY

DARK BRONZE

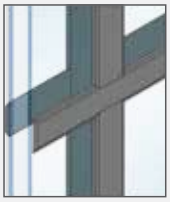
JET BLACK

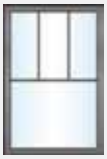
CUSTOM COLOR

Grilles

EnerLux offers grilles that are located between the glass and simulated divided lites.

Between the Glass


Simulated Divided Lites


Cottage

Plaza

Equal

Prairie

Modern Colonial

Half Colonial

Colonial

Dirty Window

Peel Film and Reveal

Clean, New Window

Glass, Screen and Hardware Options

Cardinal's Preserve (see above)

Window film provides an end-to-end solution to dirty and marred windows. Pre-applied on Cardinal insulating glass (IG) units, Preserve film protects the contractors and homeowners interest during construction. At the end of a project, just simply remove the Preserve Film to show off your perfectly clean windows.

Cardinal's Neat Glass

Harnesses the sun's UV rays to loosen dirt, so water can rinse it away, leaving windows virtually spotless. Your windows will stay clean longer and will clean easier. Homeowners and builders will enjoy the effects that a little sun, rain and Neat Glass brings to windows. Clearly, Neat Glass is the choice for your windows.

BetterVue Screens

All operable windows come standard with BetterVue Screens. BetterVue Screens use a much finer mesh that allows 20% more visual clarity, 20% more airflow, 20% more visible light and protection against smaller insects.

- Seamless transition from window to screen, beautifully invisible.
- Dent, break, and scratch resistant
- Easy to store, clean, and use

FLEXSCREEN

Window Hardware

OP08 Contemporary Cover Cap

LH20 Low Profile Lock Handle

Signature Series 9100

Euro Style Series 9700

Finish Color Options

G2 WHITE

ALMOND MK

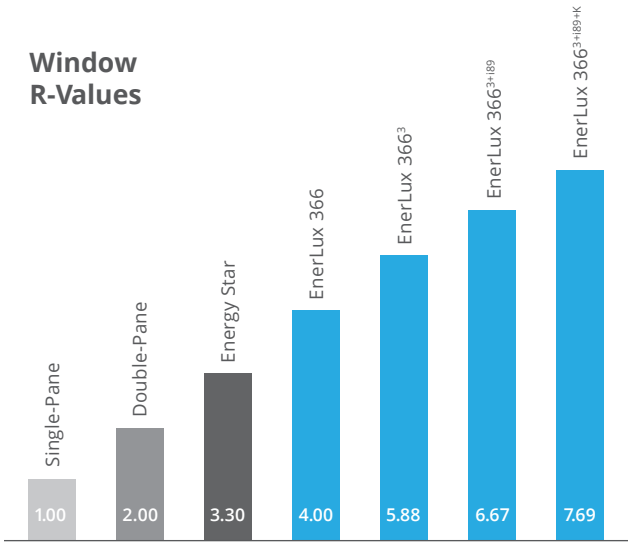
BRUSHED NICKEL

BLACK

FAUX ORB

Glass Packages

Our meticulously crafted fiberglass windows and doors, enhanced by industry-leading Cardinal Glass technology, offer unparalleled energy efficiency, comfort, and style. Experience year-round savings and a more inviting living space with our diverse selection of glass packages, designed to optimize natural light, control solar heat gain, and protect against harmful UV rays. From the exceptional insulation of LoĒ-180 to the superior solar control of LoĒ-340, EnerLux has the perfect glass solution to elevate your home's ambiance and efficiency.



High Solar Gain Glass 180

Allows the sun's radiant heat to pass into the home while providing thermal insulating quality to prevent conductive heat loss to the outside.

Advanced Performance Glass for Most Climates

Balanced solar control coating provides year-round thermal performance and comfort. Filters more solar radiation which provides a slightly better solar heat gain value.

Low Solar Gain Glass

Solar radiation and glare control provides an industry-leading Solar Heat Gain Coefficient. It also blocks 98% of UV light.

Ultlmate Performance Glass for All Climates

Delivers the perfect balance of solar control and high visible light transmission. It will provide comfort and energy savings during hot weather days and provide a great thermal insulating quality by preventing heat to conduct through the glass unit. It also blocks 95% of UV light.

Enhanced Performance Glass

High solar gain coating neutral in color and designed as a durable room side glass coating, thus reflecting escaping heat back into the room and lowing U-factors.

Energy Values

EnerLux offers durable, energy-efficient pultruded fiberglass windows and doors, designed for precision fit and customization. Stronger than vinyl and aluminum, our products provide long-lasting performance and superior thermal efficiency.

U-Factor (U)

A measure of the rate of non-solar heat loss or gain through a material or assembly. It is expressed in units of Btu/hr-sq ft-F (W/sq m-C). The lower the U-factor, the greater a window's resistance to heat flow and the better its insulating value.

R-Factor (R)

A measure of the resistance of a glazing material or fenestration assembly to heat flow. It is the inverse of the U-factor (R=1/U) and is expressed in units of hr-sq ft-F/Btu. A high R-value window has a greater resistance of heat flow and a higher insulating value than one with a low R-value.

Solar Heat Gain Coefficient (SHGC)

A measure of how well a product blocks heat caused by sunlight. The SHGC is the fraction of incident solar radiation admitted through a window (both directly transmitted and absorbed) and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's solar heat gain coefficient, the less solar heat it transmits into the house.

Visual Transmittance (VT)

A measure that shows how much light comes through a product. The visible transmittance is an optical property that indicates the amount of visible light transmitted. VT is expressed as a number between 0 and 1. The higher the VT, the more light is transmitted.

Condensation Resistance (CR)

A window's ability to avoid forming condensation on the glass. Condensation is the deposit of water vapor from the air on any cold surface whose temperature is below the dew point, such as cold window glass or frame that is exposed to humid indoor air.

Limitless Coating Choices

For ultimate performance glass, EnerLux's LoĒ³-366 delivers the perfect balance of solar control and high visibility, while EnerLux's LoĒ³-340 controls glare and blocks oppressive solar heat gain. If you need high solar gain glass to allow the winter sun's heat to pass into the home while blocking heat loss, EnerLux's LoĒ-180 is the choice for you. Add in a layer of LoĒ-i89 to any glass unit to lower U-factors further and give an even warmer interior.

Take Control of Your Home's Comfort

Engineered for optimal energy efficiency, our fiberglass windows combine precision-engineered profiles with high-performance glass packages to deliver superior U-factor, R-value, and SHGC ratings. Experience year-round comfort, reduced energy costs, and abundant natural light with windows customized to your climate and preferences.

The charts below and on the corresponding page provide the performance data for our products and the various glass packages that we offer.

Window Series

CASEMENT WINDOW

	Performance Class	CW-PG80	Air Infiltration (cfm/ft²)	0.02	Design Pressure	80
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
180	180	2	0.29	0.42	0.53	57
180[i89]	180/i89	2	0.25	0.41	0.52	45
270	270	2	0.28	0.25	0.47	58
270[i89]	270/i89	2	0.24	0.25	0.46	46
366	366	2	0.27	0.19	0.43	58
366[i89]	366/i89	2	0.24	0.19	0.42	46
340	340	2	0.28	0.13	0.27	59
452	452	2	0.27	0.16	0.35	58
180[3]	180/180	3	0.22	0.36	0.46	65
180[3+i89]	180/180/i89	3	0.20	0.22	0.40	53
270[3]	270/180	3	0.22	0.23	0.40	66
270[3+i89]	270/180/i89	3	0.20	0.22	0.40	53
366[3]	366/180	3	0.22	0.17	0.38	66
366[3+i89]	366/180/i89	3	0.20	0.17	0.37	54
340[3]	340/180	3	0.18	0.11	0.24	74
452[3]	452/180	3	0.21	0.14	0.30	67

FIXED CASEMENT WINDOW

	Performance Class	LC-PG60	Air Infiltration (cfm/ft²)	<0.01	Design Pressure	60
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
180	180	2	0.27	0.52	0.63	58
180[i89]	180/i89	2	0.22	0.50	0.62	46
270	270	2	0.25	0.29	0.54	57
270[i89]	270/i89	2	0.22	0.29	0.55	47
366	366	2	0.26	0.22	0.52	59
366[i89]	366/i89	2	0.21	0.22	0.51	47
340	340	2	0.26	0.14	0.31	59
452	452	2	0.24	0.18	0.40	58
180[3]	180/180	3	0.15	0.45	0.56	73
180[3+i89]	180/180/i89	3	0.14	0.43	0.55	60
270[3]	270/180	3	0.15	0.27	0.49	73
270[3+i89]	270/180/i89	3	0.14	0.26	0.48	61
366[3]	366/180	3	0.15	0.20	0.45	73
366[3+i89]	366/180/i89	3	0.14	0.19	0.44	61
340[3]	340/180	3	0.15	0.13	0.27	73
452[3]	452/180	3	0.18	0.16	0.35	67

AWNING WINDOW

	Performance Class	CW-PG75	Air Infiltration (cfm/ft²)	0.04	Design Pressure	75
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
180	180	2	0.29	0.42	0.53	57
180[i89]	180/i89	2	0.25	0.41	0.52	45
270	270	2	0.28	0.25	0.47	58
270[i89]	270/i89	2	0.24	0.25	0.46	46
366	366	2	0.27	0.19	0.43	58
366[i89]	366/i89	2	0.24	0.19	0.42	46
340	340	2	0.28	0.13	0.27	59
452	452	2	0.27	0.16	0.35	58
180[3]	180/180	3	0.22	0.36	0.46	65
180[3+i89]	180/180/i89	3	0.20	0.22	0.40	53
270[3]	270/180	3	0.22	0.23	0.40	66
270[3+i89]	270/180/i89	3	0.20	0.22	0.40	53
366[3]	366/180	3	0.22	0.17	0.38	66
366[3+i89]	366/180/i89	3	0.20	0.17	0.37	54
340[3]	340/180	3	0.18	0.11	0.24	74
452[3]	452/180	3	0.21	0.14	0.30	67

PICTURE WINDOW

	Performance Class	CW-PG60	Air Infiltration (cfm/ft²)	<0.01	Design Pressure	60
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
180	180	2	0.29	0.57	0.70	58
180[i89]	180/i89	2	0.23	0.56	0.68	46
270	270	2	0.26	0.32	0.60	57
270[i89]	270/i89	2	0.23	0.32	0.61	47
366	366	2	0.27	0.24	0.57	59
366[i89]	366/i89	2	0.22	0.24	0.56	47
340	340	2	0.27	0.16	0.34	59
452	452	2	0.24	0.18	0.40	58
180[3]	180/180	3	0.16	0.50	0.62	73
180[3+i89]	180/180/i89	3	0.14	0.47	0.60	60
270[3]	270/180	3	0.16	0.30	0.55	73
270[3+i89]	270/180/i89	3	0.14	0.28	0.53	61
366[3]	366/180	3	0.15	0.22	0.50	73
366[3+i89]	366/180/i89	3	0.14	0.21	0.49	61
340[3]	340/180	3	0.15	0.14	0.30	73
452[3]	452/180	3	0.18	0.16	0.35	67

Impact Window Series

IMPACT FIXED						
	Performance Class	CW-PG60	Air Infiltration (cfm/ft²)	<0.01	Design Pressure	60
	Missile Type D; Large Missile, Double Impact				Impact DP	50
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
270	270	2	0.24	0.29	0.54	58
366	366	2	0.24	0.22	0.50	59
452	452	2	0.24	0.18	0.40	59

IMPACT SENTRY FIXED						
	Performance Class	CW-PG60	Air Infiltration (cfm/ft²)	<0.01	Design Pressure	60
	Missile Type D; Large Missile, Double Impact				Impact DP	60
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
270	270	2	0.32	0.29	0.51	50
366	366	2	0.31	0.23	0.48	51
452	452	2	0.31	0.19	0.38	51

IMPACT CASEMENT						
	Impact Casement	CW-PG80	Air Infiltration (cfm/ft²)	0.02	Design Pressure	80
	Missile Type D; Large Missile, Double Impact				Impact DP	60
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
270	270	2	0.27	0.25	0.47	59
366	366	2	0.27	0.19	0.43	59
452	452	2	0.26	0.16	0.35	59

Sliding Patio Door - Standard

PATIO DOOR						
	Performance Class	LC-PG45	Air Infiltration (cfm/ft²)	0.19	Design Pressure	45
Glass Package	**Coatings**	**Panes**	**U-Factor**	**SHGC**	**VT**	**CR**
180	180	2	0.29	0.44	0.54	57
180^{i89}	180/i89	2	0.25	0.43	0.53	46
270	270	2	0.28	0.26	0.48	60
270^{i89}	270/i89	2	0.25	0.25	0.47	49
366	366	2	0.28	0.19	0.45	60
366^{i89}	366/i89	2	0.24	0.19	0.44	50
340	340	2	0.28	0.13	0.27	58
452	452	2	0.28	0.16	0.36	58
180^{3}	180/180	3	0.20	0.38	0.48	68
180^{3+i89}	180/180/i89	3	0.19	0.36	0.46	60
270^{3}	270/180	3	0.19	0.22	0.38	69
270^{3+i89}	270/180/i89	3	0.19	0.22	0.42	69
366^{3}	366/180	3	0.20	0.17	0.39	69
366^{3+i89}	366/180/i89	3	0.18	0.17	0.38	61
340^{3}	340/180	3	0.20	0.11	0.23	68
452^{3}	452/180	3	0.20	0.14	0.31	68

Why EnerLux?

EnerLux Windows and Doors is a Midwest manufacturer of energy-efficient fiberglass windows and doors that unite Energy and Luxury. Our mission is to “Provide our customers with the highest quality, most cost-effective, energy-efficient windows and doors for the new construction and replacement market.” By focusing on air-tight fiberglass products with high R-value and solar tuned glass, we can improve the internal and external environment one home at a time. Each window and door we manufacture features the highest quality components, ensuring that our fenestration products will perform over the lifetime of your home.

EnerLux
WINDOWS & DOORS

At EnerLux Windows and Doors, every project matters, every time.

Contact us to learn more about the many benefits of choosing
durable, energy efficient EnerLux fiberglass windows and doors for your project.

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