



PICTURE (NO SASH)

PERFORMANCE GRADE: CW-PG70-FW (74" x 74")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE GLAZED	LoE 366	Argon	0.25	0.24	0.57	All Zones
	Energy Advantage	Argon	0.30	0.67	0.68	Northern
TRIPLE GLAZED	LoE 366	Argon	0.21	0.23	0.53	All Zones
		Blend	0.21	0.23	0.53	All Zones
		Krypton	0.18	0.22	0.53	All Zones
	Energy Advantage	Argon	0.24	0.61	0.63	Northern
		Blend	0.23	0.61	0.63	Northern
		Krypton	0.20	0.61	0.63	Northern


PICTURE (WITH SASH)

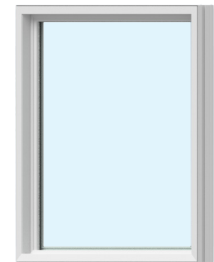
PERFORMANCE GRADE: CW-PG70-FW (79" x 79")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE GLAZED	LoE 366	Argon	0.26	0.22	0.51	All Zones
	Energy Advantage	Argon	0.30	0.59	0.60	Northern
TRIPLE GLAZED	LoE 366	Argon	0.22	0.20	0.46	All Zones
		Blend	0.21	0.20	0.46	All Zones
		Krypton	0.19	0.20	0.46	All Zones
	Energy Advantage	Argon	0.24	0.54	0.55	Northern
		Blend	0.23	0.54	0.55	Northern
		Krypton	0.21	0.54	0.55	Northern


PICTURE (WITH SINGLES FRAME)

PERFORMANCE GRADE: CW-PG70-FW (79" x 79")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE GLAZED	LoE 366	Argon	0.26	0.23	0.53	All Zones
	Energy Advantage	Argon	0.30	0.63	0.63	Northern
		Blend	0.30	0.63	0.63	Northern
TRIPLE GLAZED	LoE 366	Argon	0.27	0.22	0.49	All Zones
		Blend	0.26	0.22	0.49	All Zones
		Krypton	0.21	0.21	0.49	All Zones
	Energy Advantage	Argon	0.28	0.57	0.58	Northern
		Blend	0.28	0.57	0.58	Northern
		Krypton	0.24	0.57	0.58	Northern


CASEMENT

PERFORMANCE GRADE: CW-PG40-AP (28" x 63"), R-PG60-AP (36" x 72")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE GLAZED	LoE 366	Argon	0.25	0.19	0.43	All Zones
	Energy Advantage	Argon	0.29	0.52	0.51	Northern
TRIPLE GLAZED	LoE 366	Argon	0.22	0.17	0.39	All Zones
		Blend	0.21	0.17	0.39	All Zones
		Krypton	0.20	0.17	0.39	All Zones
	Energy Advantage	Argon	0.23	0.46	0.47	Northern
		Blend	0.23	0.46	0.47	Northern
		Krypton	0.21	0.46	0.47	Northern


AWNING

PERFORMANCE GRADE: CW-PG40-AP (48" x 36"), R-PG60-AP (48" x 36")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE GLAZED	LoE 366	Argon	0.26	0.19	0.43	All Zones
	Energy Advantage	Argon	0.29	0.52	0.51	Northern
TRIPLE GLAZED	LoE 366	Argon	0.22	0.17	0.39	All Zones
		Blend	0.22	0.17	0.39	All Zones
		Krypton	0.20	0.17	0.39	All Zones
	Energy Advantage	Argon	0.24	0.46	0.47	Northern
		Blend	0.23	0.46	0.47	Northern
		Krypton	0.21	0.46	0.47	Northern



* ENERGY STAR ZONES: N = NORTHERN NC = NORTHERN-CENTRAL SC = SOUTH-CENTRAL S = SOUTHERN

SINGLE-HUNG TILT

PERFORMANCE GRADE: R-PG40-H (39" x 63")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE	LoE 366	Argon	0.27	0.21	0.50	All Zones
TRIPLE GLAZED	LoE 366	Argon	0.28	0.20	0.46	NC, SC, S
		Blend	0.27	0.20	0.46	All Zones
		Krypton	0.22	0.20	0.46	All Zones
	Energy Advantage	Argon	0.26	0.50	0.51	Northern
		Blend	0.25	0.50	0.51	Northern
		Krypton	0.25	0.53	0.55	Northern



DOUBLE-HUNG TILT

PERFORMANCE GRADE: R-PG60-H (39" x 63")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE	LoE 366	Argon	0.27	0.21	0.48	All Zones
TRIPLE GLAZED	LoE 366	Argon	0.28	0.20	0.44	NC, SC, S
		Blend	0.27	0.20	0.44	All Zones
		Krypton	0.23	0.19	0.44	All Zones
	Energy Advantage	Krypton	0.25	0.51	0.52	Northern
	Energy Advantage (2&5)	Argon	0.26	0.48	0.49	Northern
		Blend	0.25	0.48	0.49	Northern
		Krypton	0.21	0.48	0.49	Northern



DOUBLE SLIDER TILT

PERFORMANCE GRADE: R-PG30-HS (63" x 44")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE	LoE 366	Argon	0.27	0.21	0.48	All Zones
TRIPLE GLAZED	LoE 366	Argon	0.28	0.19	0.44	NC, SC, S
		Blend	0.27	0.19	0.44	All Zones
		Krypton	0.23	0.19	0.44	All Zones
	Energy Advantage (2&5)	Argon	0.26	0.48	0.49	Northern
		Krypton	0.25	0.51	0.52	Northern



SINGLE SLIDER LIFT-OUT

PERFORMANCE GRADE: R-PG40-HS (63" x 44")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE	LoE 366	Argon	0.27	0.21	0.50	All Zones
TRIPLE GLAZED	LoE 366	Argon	0.28	0.20	0.46	NC, SC, S
		Blend	0.27	0.20	0.46	All Zones
		Krypton	0.22	0.20	0.46	All Zones
	Energy Advantage	Krypton	0.25	0.53	0.55	Northern
	Energy Advantage (2&5)	Argon	0.26	0.50	0.51	Northern
		Blend	0.25	0.50	0.51	Northern



DOUBLE SLIDER LIFT-OUT

PERFORMANCE GRADE: R-PG45-HS (63" x 44")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE	LoE 366	Argon	0.27	0.20	0.48	All Zones
TRIPLE GLAZED	LoE 366	Argon	0.28	0.19	0.44	NC, SC, S
		Blend	0.27	0.19	0.44	All Zones
		Krypton	0.23	0.19	0.44	All Zones
	Energy Advantage	Krypton	0.25	0.51	0.52	Northern
	Energy Advantage (2&5)	Argon	0.26	0.48	0.49	Northern
		Blend	0.25	0.48	0.49	Northern



3-LITE SINGLE SLIDER LIFT-OUT

PERFORMANCE GRADE: R-PG55-HS (95.9" x 48")

	GLASS OPTION (W/O GRILLES)	GAS	U VALUE IMP	SHGC	VT	ENERGY STAR ZONES*
DOUBLE	LoE 366	Argon	0.27	0.21	0.50	All Zones
TRIPLE GLAZED	LoE 366	Argon	0.28	0.20	0.46	NC, SC, S
		Krypton	0.22	0.20	0.46	All Zones
		Energy Advantage	Krypton	0.25	0.53	0.55
	Energy Advantage (2&5)	Argon	0.26	0.50	0.51	Northern
		Blend	0.25	0.50	0.51	Northern



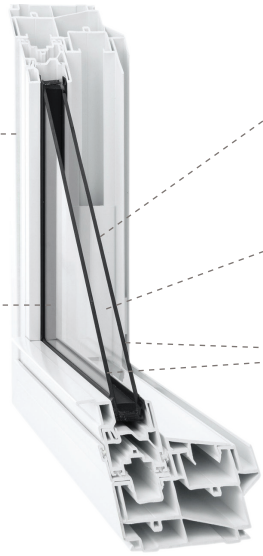
WHAT MAKES A WINDOW ENERGY EFFICIENT?

QUALITY FRAME MATERIALS

A variety of durable, low-maintenance framing materials reduce heat transfer and help insulate better.

WARM EDGE SPACERS

A spacer keeps a window's glass panes the correct distance apart. Non-metallic and metal/non-metal hybrid spacers also insulate pane edges, reducing heat transfer through the window.



LOW E-GLASS

Special coatings reflect infrared light, keeping heat inside in the winter and outside in the summer. They also reflect damaging ultraviolet light, which helps protect interior furnishings from fading.

GAS FILLS

Some energy-efficient windows have argon, krypton, or other gases between the panes. These odorless, colorless, non-toxic gases insulate better than regular air.

MULTIPLE PANES

Two panes of glass, with an air or gas-filled space in the middle, insulate much better than a single pane of glass. Some ENERGY STAR qualified windows include three or even more panes for greater energy efficiency, increased impact resistance, and sound insulation.

TERMS

U-VALUE

When heating is needed, the key rating parameter is the U-value. The U-value describes how well a product prevents heat from escaping a home or building. U-value ratings generally fall between 0.2 and 1.2. The lower the U-value, the better a product is at keeping heat in. U-factor is particularly important during the winter heating season.

SOLAR HEAT GAIN COEFFICIENT (SHGC)

When cooling is needed, the key rating parameter is the SHGC. SHGC measures how well a product blocks heat from the sun. SHGC is expressed as a number between 0 and 1. The lower the SHGC, the better a product is at blocking unwanted heat gain. Blocking solar heat gain is particularly important during the summer.

ARGON AND KRYPTON

Argon and krypton are odorless, colorless, non-toxic inert gases that can be used instead of air between panes of glass to increase insulation and energy efficiency. Argon is the cheaper, more readily available gas, but krypton is a better insulator.

LOE 366 (CARDINAL)

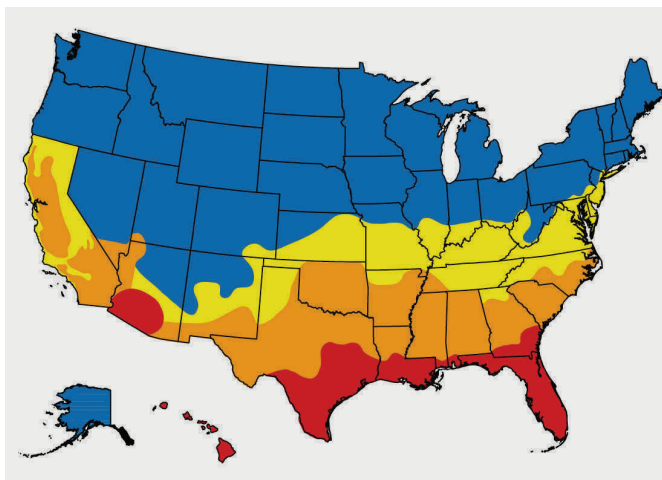
LoE 366 is recommended when cooling costs outweigh heating costs in your energy usage, or where summer discomfort from heat build-up should be an important concern. This is the best glass for most applications in a southern climate. It has a very high reflection rate of the radiant outside heat to prevent heat gain in summer and in winter it still retains radiant once you turn on your furnace! LoE 366 has a lower Solar Heat Gain Coefficient (SHGC) in order to minimize Solar Heat Gain that results in extra work for your air conditioning unit.

ENERGY ADVANTAGE (PILKINGTON)





Energy Advantage Low-E is the best glass for most applications in a northern climate. It allows solar heat gain in the winter and minimizes heat gain in the summer. Energy Advantage Glass has a higher Solar Heat Gain Coefficient (SHGC) than Low-E glass designed for southern climates. It provides free winter heat for your home.

PERFORMANCE GRADE

AAMA (American Architectural Manufacturer's Association) minimum allowable PG (Performance Grade) for residential is R-PG-15.



UNITED STATES 4 ENERGY ZONES

-  Northern
-  Northern-Central
-  South-Central
-  Southern

The United States is split into four zones: Northern, North/Central, South/Central and Southern. Once you've determined the zone where you live, you can find the best ENERGY STAR-approved options available for your region. For greater energy saving, consider installing windows and doors suited for colder regions than your own.

