

GLAZING SELECTION GUIDE



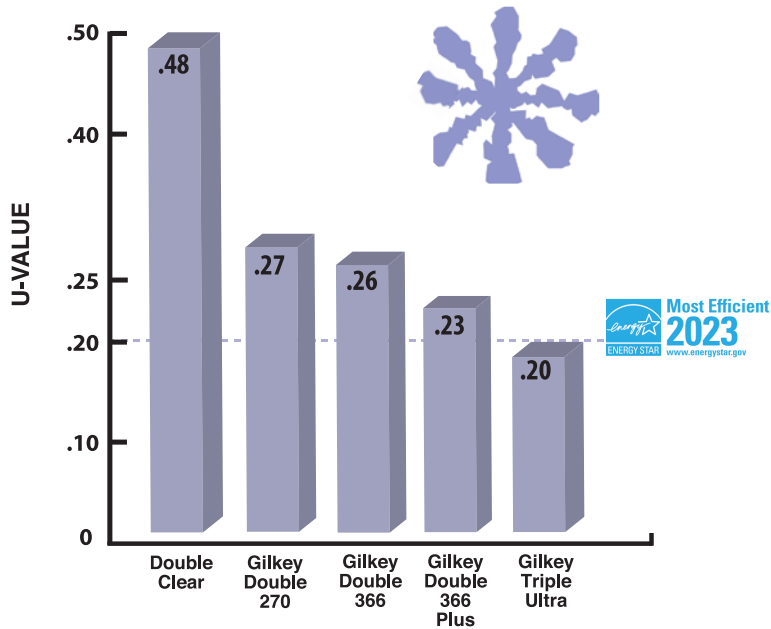
GLASS FOR ALL SEASONS

HOME CONDITIONS AND PROVEN GILKEY PERFORMANCE

WINTER INSULATING PERFORMANCE

KEEPING YOUR HOME COMFORTABLE
AND ENERGY EFFICIENT

NFRC WINTER PERFORMANCE COMPARISON
NFRC-100-2010



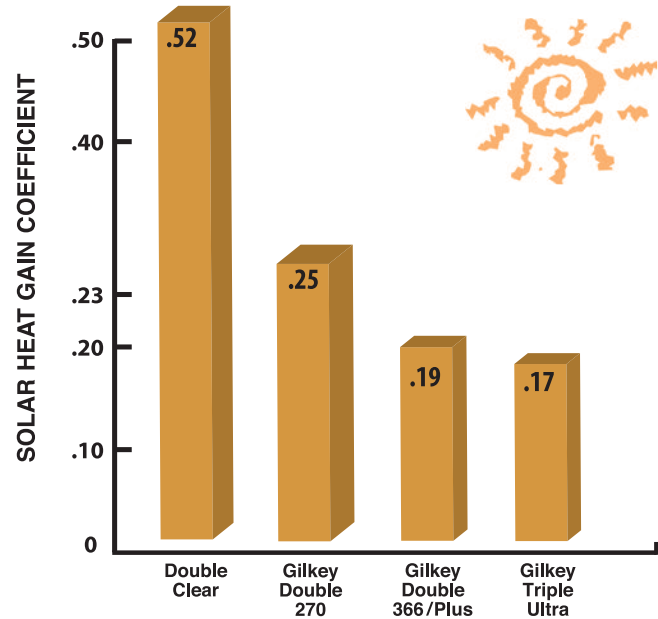
YOU SHOULD SELECT A WINDOW
WITH **LOWER** U-VALUES IF:

- Reducing heat costs is a factor in your window investment.
- Your home has large areas of glass. Improving the insulating value of your windows may be necessary to comply with local energy codes.
- You sit near your windows in the winter.

SUMMER SOLAR CONTROL

PROTECTING YOUR HOME FROM
THE HOT HOUSE/GREENHOUSE "SYNDROME"

NFRC SUMMER PERFORMANCE COMPARISON
NFRC-100-2010

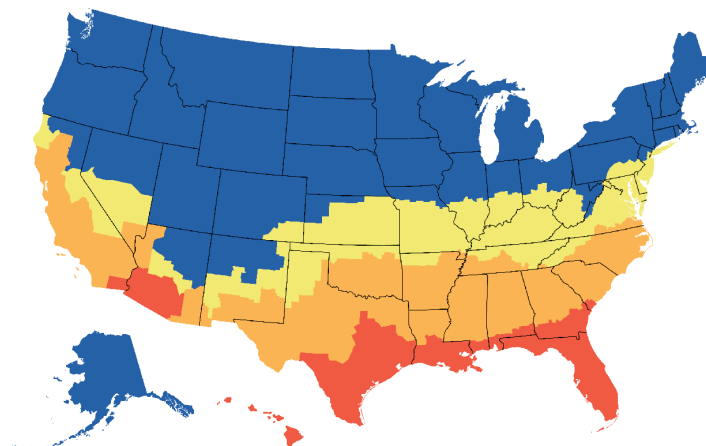


YOU SHOULD SELECT A WINDOW WITH A
LOWER SOLAR HEAT GAIN COEFFICIENT IF:

- You have air conditioning in your home.
- You have large areas of glass facing west, south or east.
- You are building in an area with energy codes that require solar control glazings.
- You are replacing windows and some areas of your home currently get too hot.

CLIMATE ZONE MAP

- Northern
- North Central
- South Central
- Southern

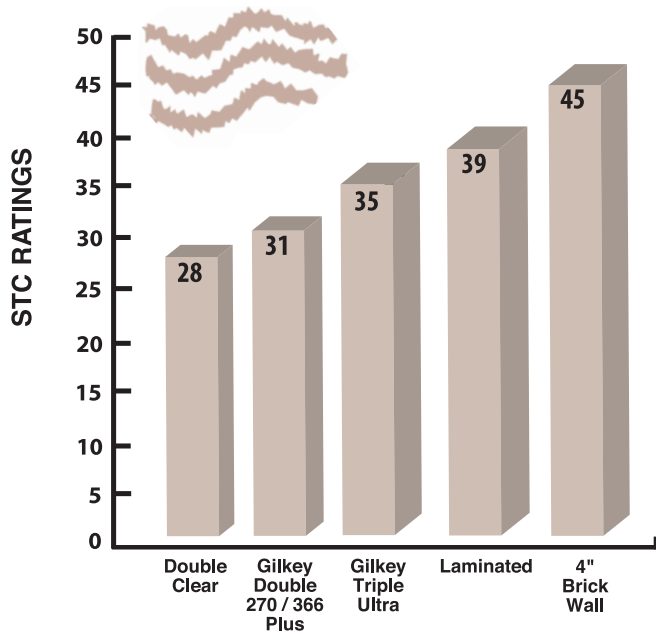


LEADS TO MAXIMIZING YOUR COMFORT AND PROTECTION

SOUND CONTROL

USING GLAZING TO REGULATE SOUND TRANSMISSION THROUGH WINDOWS

SOUND CONTROL COMPARISON 2010



YOU SHOULD CHOOSE A HIGH SOUND CONTROL WINDOW IF:

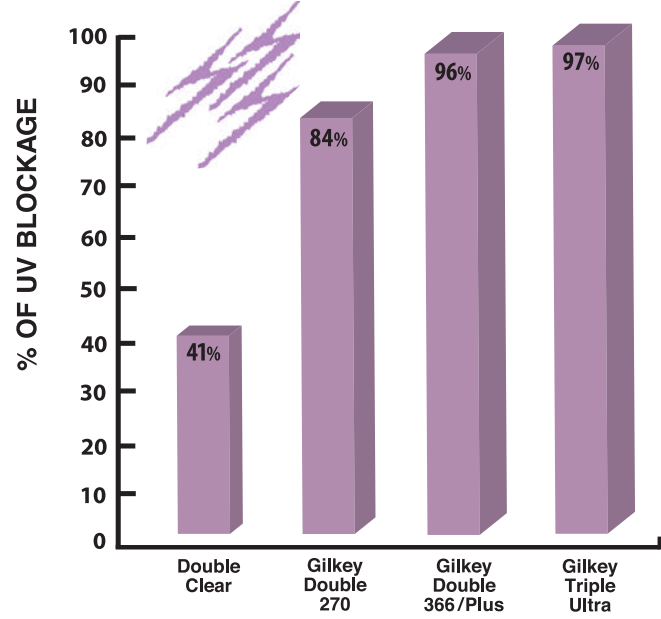
- You live in a noisy environment (busy street, airport, police, fire station).
- You are concerned with noise through bedroom windows or sleeping areas.

Note: Just like the Richter scale, STC ratings are logarithmic not linear so an increase by 1 point is 10 times better at reducing sound transmission through a material. Testing based on simulated results from Glazing data.

ULTRA-VIOLET PROTECTION

PROTECT YOUR HOME FURNISHINGS FROM DAMAGING UV RADIATION

UV BLOCKAGE COMPARISON



YOU SHOULD SELECT A WINDOW WITH MAXIMUM UV FADING PROTECTION IF:

- You have an investment in furnishings that should be protected from damaging, UV radiation.
- You want to extend the life, color and appearance of your carpet, hardwood floors, furniture and drapes.

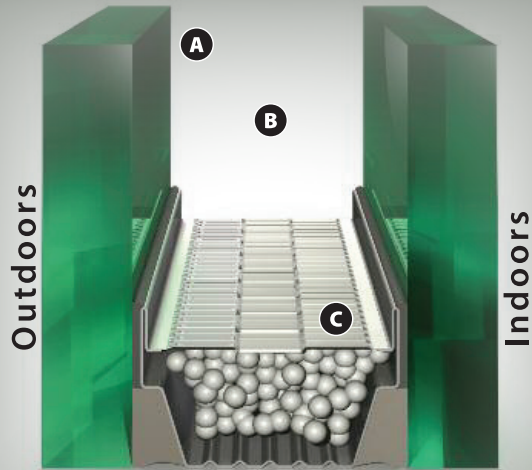
ENERGY STAR, everywhere.

Effective October 23, 2023, The ENERGY STAR 7.0 specification represents a significant update to EPA standards. ENERGY STAR certified products will need to meet even more stringent U-factor and SHGC requirements than ever before. Gilkey Window Company has chosen specific glazing options that can achieve Energy Star 7.0 requirements depending on your climate zone.

WINDOWS	CLIMATE RECOMMENDATIONS		
	U-FACTOR	SHGC	
Northern	≤0.22	≥0.17	Prescriptive
	=0.23	≥0.35	Equivalent Energy Performance
	=0.24		
	=0.25		
=0.26			
North Central	≤0.25	≤0.40	
South Central	≤0.28	≤0.23	
Southern	≤0.32	≤0.23	

FOUR GLAZING OPTIONS TO CHOOSE FROM

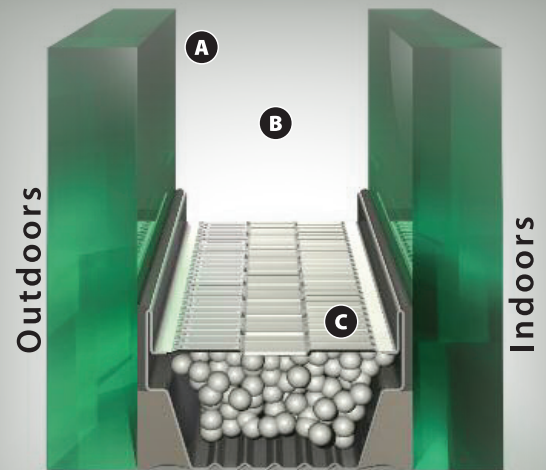
LoE²-270[®]



- A** LoE²-270[®] Coating
- B** 99.5% Argon Gas Fill
- C** Endur[™] Stainless Steel Spacer



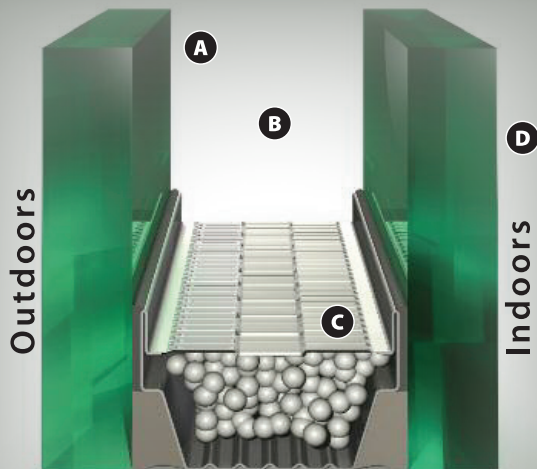
LoE³-366[®]



- A** LoE³-366[®] Coating
- B** 99.5% Argon Gas Fill
- C** Endur[™] Stainless Steel Spacer



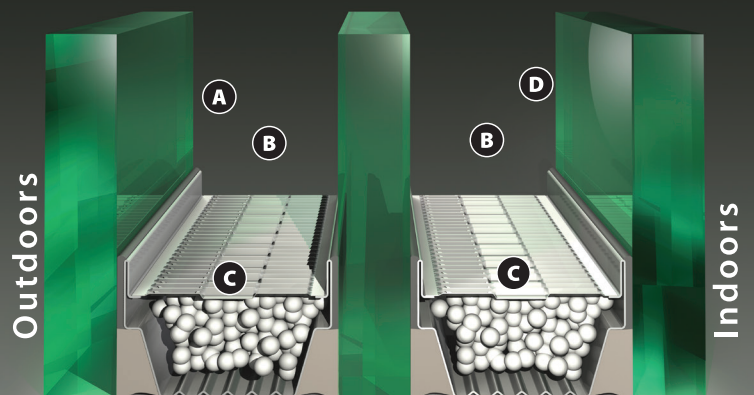
LoE³-366[®] PLUS



- A** LoE³-366[®] Coating
- B** 99.5% Argon Gas Fill
- C** Endur[™] Stainless Steel Spacer
- D** LoE-i89[®] Coating



Triple-Pane Ultra Glass



- A** LoE³-366[®] Coating
- B** 99.5% Argon Gas Fill
- C** Endur[™] Stainless Steel Spacer
- D** LoE-i180[™] Coating



Gilkey Window Company is a proud partner with Cardinal Glass, our preferred supplier of High Performance coated glass products for our window and doors. Cardinal Glass is considered the world's leading provider of superior quality glass products for both the residential and commercial markets. From the melting of sand to produce crystal clear float glass to the vacuum sputtering of silver to produce low-emissivity coatings, Cardinal is recognized as the industry leader.

Below are the main Cardinal components Gilkey has selected for our (4) glazing offerings. Each designed for specific performance characteristics depending on your climate and desired insulation:



LoE²-270[®] *Pronounced low E squared-270*

LoE²-270[®] Advanced performance glass for all climates. This coating provides a good balance of high visible light into your home with a moderate tinting and good summer solar control for reduced air conditioning costs. This is a double layer silver coating that can be used in double pane or triple pane configurations.



LoE³-366[®] *Pronounced low E cubed-366*

LoE³-366[®] The Ultimate performance glass. It just might make all other low-E glass obsolete. And it provides the highest levels of year-round comfort and energy savings, making it the perfect glass no matter where you live. The secret? An unprecedented triple layer of silver. This is beyond ordinary low-E glass; LoE³-366[®] Glass sets the new standard.



LoE-i89[®] Enhanced performing glass. Special coating of indium on the inside pane of glass that reflects heat back into the room thus lowering U-values for improved winter comfort. When combined with LoE³-366[®] this system can improve Mean Radiant Temperature (MRT) or “feels like” temperature 8 degrees over clear glass.



LoE-180[™] Ultra Clear Performance – Single layer of silver LoE ideal for added insulation when used in conjunction with LoE³-366[®] or LoE²-270[®] – Allows for high visible light.



Endur[™] The World's most advanced stainless steel spacer system. Patented corrugated shape and design improves sightline temperature reducing condensation. Inorganic dual sealed for long term durability and peace of mind. No other glazing system compares.

THE MOST DURABLE, LONGEST LASTING GLASS AVAILABLE FOR YOUR HOME.

Gilkey Inorganic stainless steel spacers achieve unparalleled longevity and outstanding thermal performance.

Gilkey's insulated glass delivers the industry's lowest failure rate backed by a comprehensive warranty. No "out-of-pocket" cost for any seal failure for 20 years no matter who owns the home.

Test criteria simulate worst case scenarios: Most high volume, "quick turn-around" glazing systems, use a single seal organic system which has shown to fail after 3-9 weeks of testing.



P1 CHAMBER RESULTS

One week in the P1 chamber equals 1 YEAR of environmental conditions.

- Intercept™ 3-5 Weeks
- Super Spacer™ 5-7 Weeks
- DuraSeal™ 7-9 Weeks
- Gilkey Endur™ 84 Weeks



Subjecting Insulated Glass to continuous conditions of 140°F, water spray, and UV, the P1 Chamber Test concludes, and the chart clearly shows our Dual Seal — PIB/Silicone Windows far exceeds competitors IG.



WARM EDGE, STAINLESS STEEL SPACER IS THE KEY

The corrugated shape adds strength. Bent corners —not notched or open joints— create a continuous impermeable barrier around the entire perimeter, keeping moisture out and argon in. Overlapping seams along ears allow breathing.

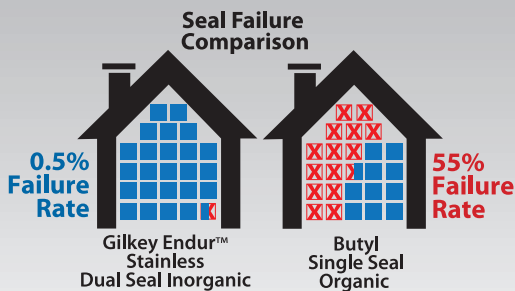


Gilkey specializes in high performance glass. In fact, we use the same technology developed and tested for many architectural and commercial glazings around the world.

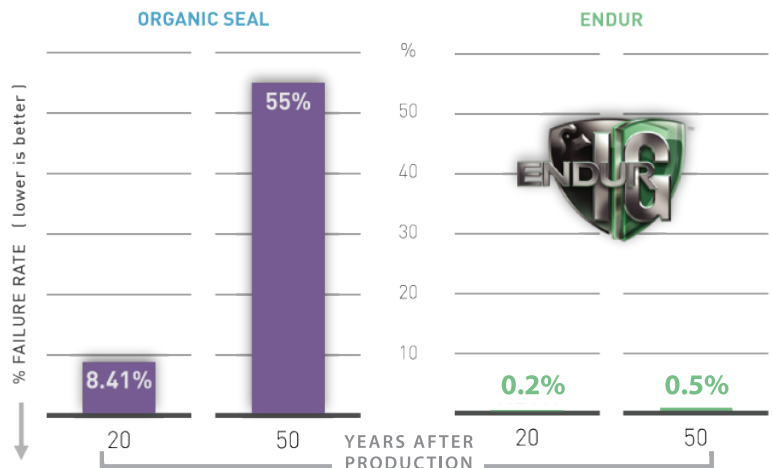
Our glass reduces energy consumption in both hot and cold climates, saving you money on heating and cooling.

Reduced energy consumption is also good for the environment —it reduces greenhouse gas emissions by millions of tons each year.

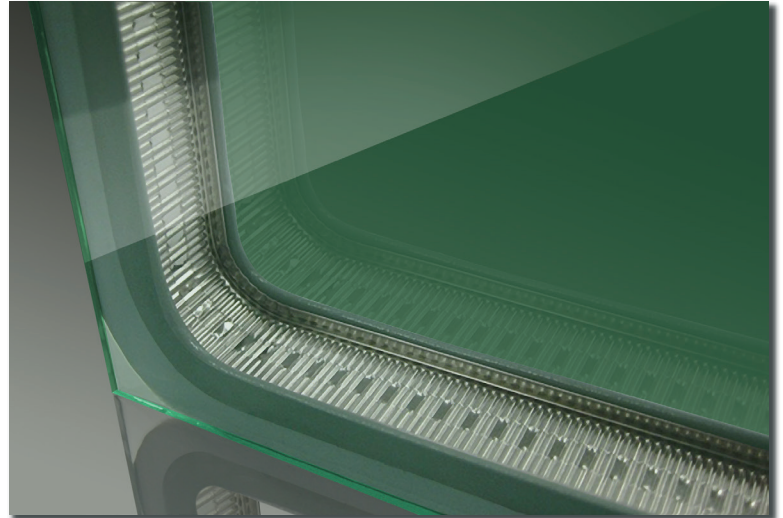
Combine this glazing system with our coated LoE products for the Ultimate performance in any climate.



Based on years after production, the failure rate using an Organic Seal vs our Endur™ Stainless Dual Seal Inorganic is drastically different.



What makes a long-lasting IG unit?



- 1 Primary Seal:** Polyisobutylene (PIB) eliminates moisture permeation, increases UV resistance and provides one of the lowest argon permeation of all known sealants.
- 2 Secondary Seal:** Specially formulated silicone for IG units provides long-term adhesion, UV protection, and greater resistance to the effects of solvents, oils and short-term water immersion. Silicone is recognized as the best sealant for resisting weathering and adhering to glass substrates. Because of its structural properties, silicone provides structural integrity of the IG units.
- 3 Spacer:** Stainless steel spacer features a roll form design to provide maximum area for primary and secondary sealant coverage. It provides increased resistance to condensation and less stress on IG seal system. Bent corners completely seal the spacer periphery to eliminate moisture vapor transmission into the airspace through corners.
- 4 Desiccants:** Molecular sieve creates a frost point below - 85°F. Desiccant assures optimum moisture adsorption while minimizing the effects of geometry and temperature-related pressure changes.

Our Naturally Clean Glass is NEAT®



Harness the sun's rays to loosen dirt so water can rinse it away leaving windows virtually spotless. Your windows will stay clean longer and will clean easier.

Gilkey Neat® Glass is a perfect option for hard to reach windows above a foyer or fixed geometrics that are off the ground and even patio doors. It is also the perfect choice for homeowners who prefer sparkling clear windows year round with reduced maintenance.

<p>Ordinary glass versus Neat® glass</p> <p>Contact Angle</p>	<p>Contact Angle</p>
<p>Ordinary Glass (Hydrophobic)</p> <p>Water beads higher on rough surface of ordinary glass, causing more spots and greater cleaning needs.</p>	<p>Neat® LoE Glass (Super Hydrophilic)</p> <p>The smooth surface disperses water evenly, removing dirt more quickly and reducing water spots.</p>

It all starts with the sun

The titanium dioxide layer of Neat® coated glass reacts chemically with the sun's UV rays and causes organic materials that are on the glass to decompose. It works even on cloudy days. Then when it rains, the decomposed dirt caused by the titanium dioxide reaction is rinsed away, leaving your glass almost spotless.

Smoother glass is cleaner glass

A thin, durable layer of silicone dioxide makes Neat® Glass exceptionally smooth and super hydrophilic, much smoother than ordinary hydrophobic uncoated glass. This allows water to disperse evenly or "sheet off" and evaporate quickly reducing water spotting.

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www.GILKEY.com

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