



# Ultra V-Seal

*Insulated Glass System*

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Multiple gas & glass options combine with the advanced “warm-edge” technology of Intercept® Ultra Spacer Systems to provide energy-efficiency for your home.

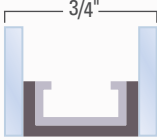
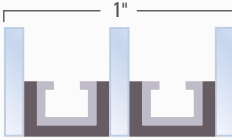
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# Ultra V-Seal Insulated Glass System

The Ultra V-Seal family of glass provides an economical solution for your energy needs by combining Intercept® Ultra's superior "warm-edge" technology with a variety of glass configurations. Choose dual-pane insulating glass with Low-E and Argon, or upgrade to the most energy-efficient package available, our triple-pane insulating glass with two panes of Low-E glass and Krypton gas. Additionally, it offers the latest science in gas mixture and filling, OptiGas with ThermalCert, ensuring that the gas you were promised is actually going to bring you the energy savings you expect.

With the addition of options that incorporate energy efficient Cardinal LoE<sup>3</sup>-366 Glass, Ultra V-Seal has **ten** distinct glass packages for you to choose from, all based on your energy needs and budget.

**Consult with your Vista window professional to determine which Ultra V-Seal package is best for your home.**

Ultra V-Seal 270 Series*	Plus	270-ES	Triad	Triad 7	Triad Max
	Low-E Argon Clear	Low-E Argon Clear	Clear Argon Low-E Argon Clear	Low-E Argon Low-E Argon Clear	Low-E Krypton Low-E Krypton Clear
<b>U-Value</b>	<b>.29</b>	<b>.27</b>	<b>.25</b>	<b>.21</b>	<b>.18</b>
<b>R-Factor</b>	<b>3.45</b>	<b>3.70</b>	<b>4.00</b>	<b>4.76</b>	<b>5.56</b>
<b>VL</b>	<b>52%</b>	<b>54%</b>	<b>48%</b>	<b>41%</b>	<b>41%</b>
<b>SHGC</b>	<b>.28</b>	<b>.31</b>	<b>.28</b>	<b>.22</b>	<b>.21</b>
<b>Energy Star</b>	<b>NC</b>	<b>N, NC</b>	<b>N, NC</b>	<b>All</b>	<b>All</b>
					
Ultra V-Seal 366 Series*	Plus-366	366-ES	Triad-366	Triad 7-366	Triad Max-366
	Low-E Argon Clear	Low-E Argon Clear	Clear Argon Low-E Argon Clear	Low-E Argon Low-E Argon Clear	Low-E Krypton Low-E Krypton Clear
<b>U-Value</b>	<b>.28</b>	<b>.27</b>	<b>.26</b>	<b>.22</b>	<b>.18</b>
<b>R-Factor</b>	<b>3.57</b>	<b>3.70</b>	<b>3.85</b>	<b>4.55</b>	<b>5.56</b>
<b>VL</b>	<b>48%</b>	<b>48%</b>	<b>44%</b>	<b>34%</b>	<b>34%</b>
<b>SHGC</b>	<b>.20</b>	<b>.20</b>	<b>.23</b>	<b>.16</b>	<b>.16</b>
<b>Energy Star</b>	<b>NC, SC, S</b>	<b>All</b>	<b>All</b>	<b>All</b>	<b>All</b>

\*Values are based on a double hung window with selected glass option and no grids; actual values may vary based on window configuration. UltraV ES window is available in double hung only and includes foam fill. ■ indicates products that have been designated as one of the Most Efficient ENERGY STAR certified products in 2016.

## Cardinal LoE<sup>3</sup>-366® Glass

Ultra V-Seal 366 Series increases its efficiency by incorporating Cardinal LoE<sup>3</sup>-366 - the ultimate performance glass.

- ENERGY STAR® compliant in every zone
- Ideal balance of solar control and high visibility
- The ultimate performance glass with energy savings throughout the year
- Neat® glass harnesses the sun's UV rays to loosen dirt so water can rinse it way
- Three layers of silver provide energy efficiency and decreased heat gain, all while resisting interior fading



## Why Intercept® Ultra?

- Superior warm-edge performance – MEETS and EXCEEDS ENERGY STAR® requirements
- Intercept® Ultra's stainless steel is less conductive to heat and cold – thus a higher thermal performance temperature in the IG

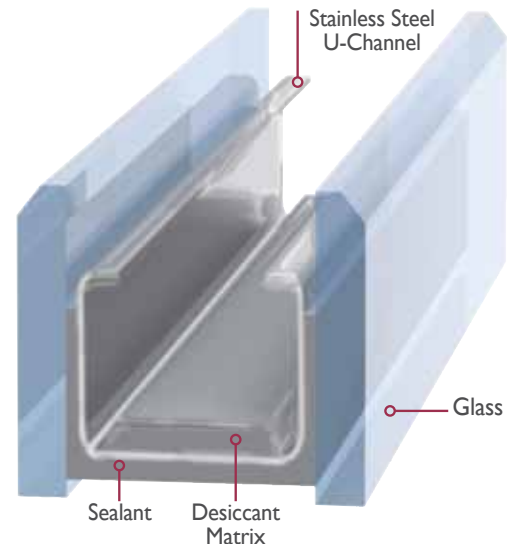


## intercept® Ultra SPACER SYSTEM

The performance of the spacer in the Insulated Glass (IG) unit is critical because it helps determine the energy efficiency of your window as well as its longevity. Since PPG introduced Intercept "Warm-Edge" Spacers in 1992, they've become, by far, the industry's most trusted and proven spacer system. In fact, the Intercept Spacer System is now at work in more than 600 million windows in North America, a number that outpaces any other window spacer technology.

### Intercept® Ultra Spacers add up to **big energy savings**

- Unique, one-piece **stainless steel** U-Channel creates an effective thermal resistance to heat or cold migrating through the edge of the glass
- Superior structural strength, durability and gas retention
- Durable metal spacer not only ensures that the window will maintain its structural integrity, but also that it will retain its insulating value over time
- Cost-effective and ENERGY STAR compliant



The Intercept® Ultra Stainless Spacer System delivers *thermal performance, structural integrity & reliability* to maximize your new window investment.

### The Intercept Difference

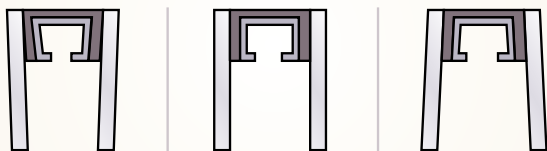
This illustration below shows how the metal spacer expands and contracts with the window glass compared to other spacers. In warmer weather, the spacer allows for expansion. In colder weather, the spacer contracts with the glass. The spacer's flexibility ensures that the sealant used is not compromised and won't separate from the metal or the glass. This "flexing" action of the U-channel ultimately leads to better gas retention.

#### INTERCEPT® ULTRA

Colder

Neutral

Warmer



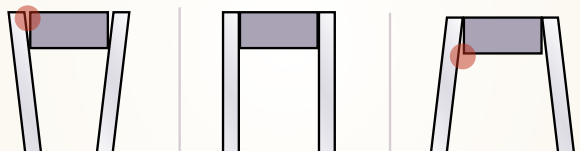
Intercept® Ultra spacers flex instead of the sealant during temperature changes so it resists spacer movement and seal failure.

#### OTHERS

Colder

Neutral

Warmer



With conventional aluminum spacers, the sealant flexes which can lead to sealant failure and loss of insulating ability.

# OptiGas & ThermalCERT

*Our technology guarantees the thermal performance of your windows.*

Gas is a critical component to the energy efficiency of your new windows. Since gas is invisible, *how do you know it's actually in there?*

Enter OptiGas and ThermalCert - the innovative, scientific and verifiable approach to insulating glass gas filling.

OptiGas is the first fully-engineered, automated and integrated smart-fill system for insulating glass.

ThermalCert provides quality assurance in the following ways:


- Takes actual thermal conductivity measurements after the gas is inserted
- Sets a test frequency to assure statistical significance
- Stops production if measurement is skipped, or results are outside the specified control limits

*With ThermalCERT by OptiGas, you can be certain the U-value you were promised is the U-value you receive.*



# NFRC Energy Ratings

Every Vista window is labeled with the NFRC energy rating label. Look for this label on your window for exact energy performance ratings, which are based on the overall performance of the window.

 <b>Vista Window Company</b>	
<b>PANORAMA SERIES</b> Vinyl (VY) • Triple Glazed Low-E Krypton/Argon Gas • Intercept Ultra Double Hung Window	
<b>ENERGY PERFORMANCE RATINGS</b>	
U-Factor (U.S./I-P) <b>0.18</b>	Solar Heat Gain Coefficient <b>0.16</b>
<b>ADDITIONAL PERFORMANCE RATINGS</b>	
Visible Transmittance <b>0.34</b>	—
<small>Manufacturer declares that these ratings conform to applicable NFRC procedures for determining window 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. www.nfrc.org</small>	
 <b>ENERGY STAR® Qualified</b> In All 50 States	
The thermal performance and gas content of this window ID has been verified by ThermalCERT technology.	
For more information, visit <a href="http://isgasinthere.com">isgasinthere.com</a> .	
<small>This sticker to be removed by homeowner only.</small> <b>ID#: 69491</b>	
Go to <a href="http://WWW.VISTAWINDOWCO.COM">WWW.VISTAWINDOWCO.COM</a> to register your Warranty.	

## What does "Most Efficient" mean?

Products that are recognized as the Most Efficient of ENERGY STAR in 2016 prevent greenhouse gas emissions by meeting rigorous energy efficiency performance levels set by the U.S. Environmental Protection Agency.



Two Ultra V-Seal products have been designated as one of the Most Efficient ENERGY STAR certified products in 2016; see chart for details.



# Ultra V-Seal

## Insulated Glass System



Vista Window Company produces windows that have been recognized by the EPA as Most Efficient in 2016.