

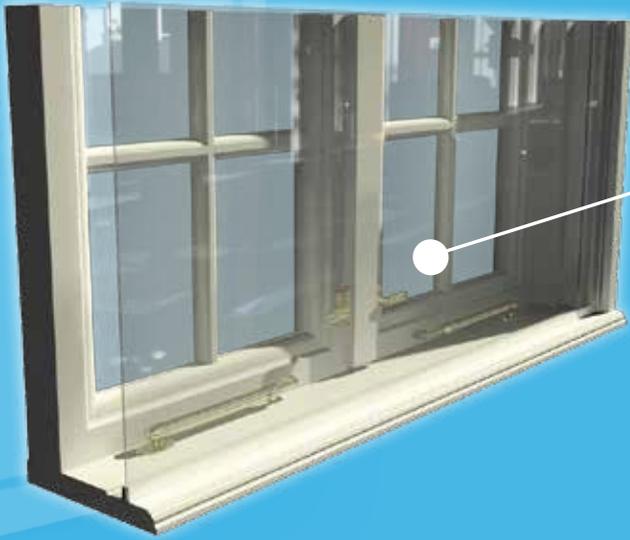
*IT'S NOT A WINDOW...IT'S*

**Magnetite**

**1.404.537.1777**

# What is Magnetite?

Your existing window is retrofitted with our patented Magnetite framing system. This system allows any of our series of custom Magnetite panels to magnetically fit into place with an airtight seal, thus providing you with unparalleled sound control, thermal comfort and overall energy efficiency.



## Air Space

Dead air is an insulator. A bigger "dead air space" between a Magnetite panel and an existing window equals a better result.

**Air Space R-Value =**  
*R-1 per Inch of dead Air Space*

## Magnetite Window Panel

Made from 100% virgin, optical-grade acrylic, guaranteed not to yellow. The flexible magnet is molded into the edging, sealing out dust and keeping the acrylic panel firmly in place. Magnetite's patented edging is made with exterior grade window vinyl. Available in thermal, soundproofing, or IR rejecting.

**Total R-Value =**  
*Existing Window + Air Space + Magnetite Panel*  
(Magnetite R-Value = 0.69 up to 1.39)

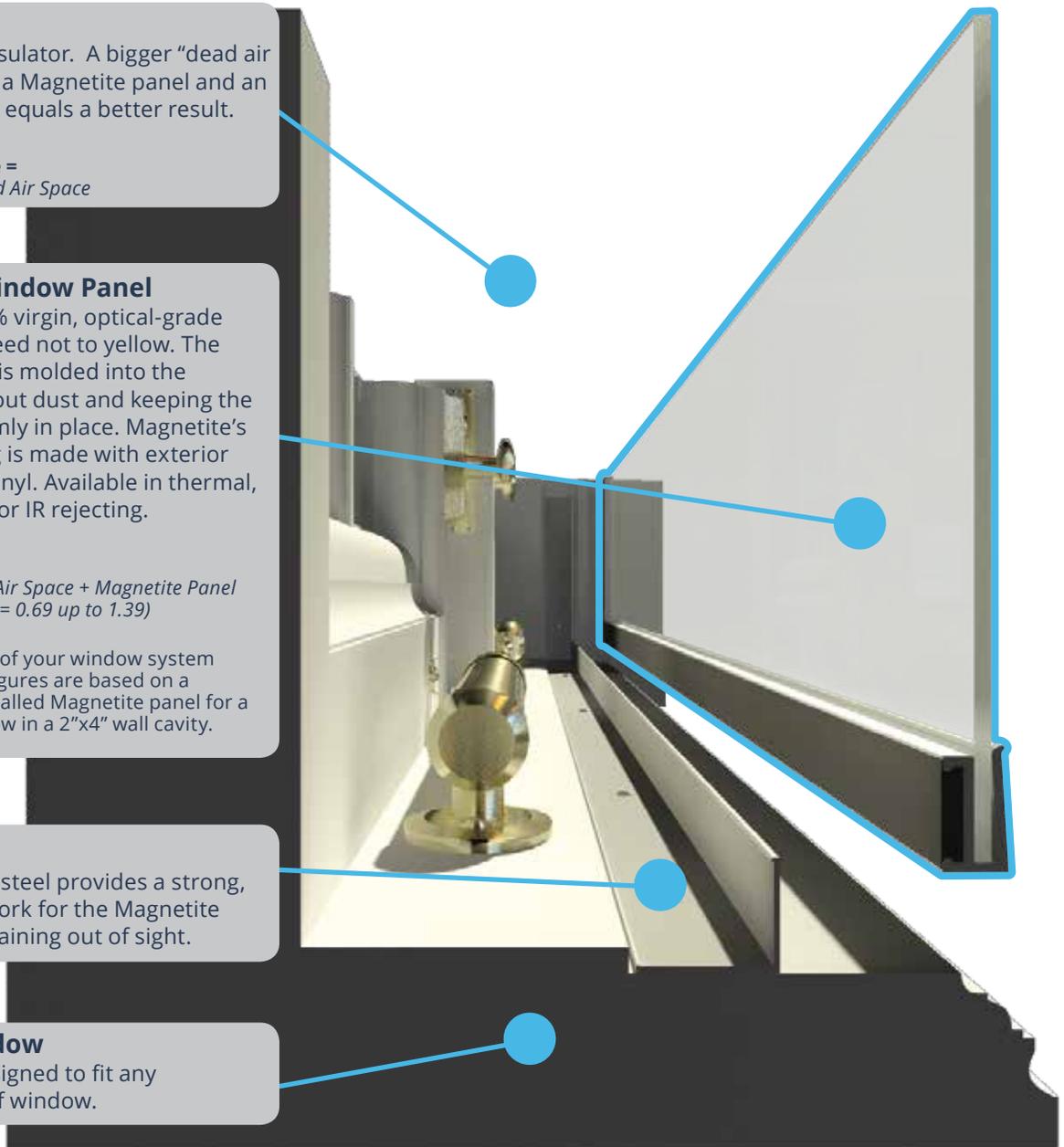
\*The final R-value of your window system may vary. These figures are based on a professionally installed Magnetite panel for a single-hung window in a 2"x4" wall cavity.

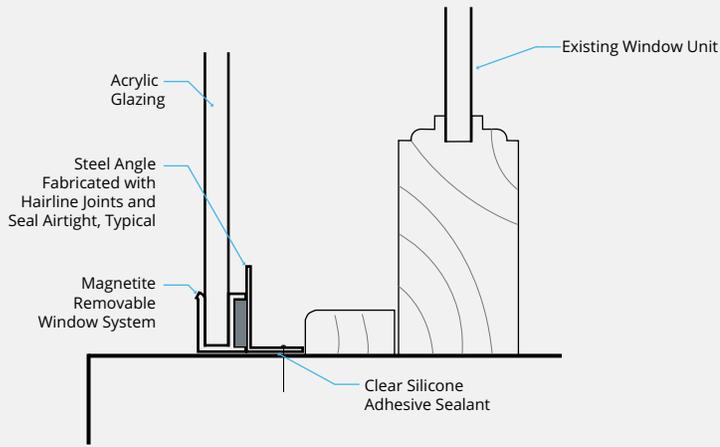
## Frame

This lightweight steel provides a strong, durable framework for the Magnetite panel while remaining out of sight.

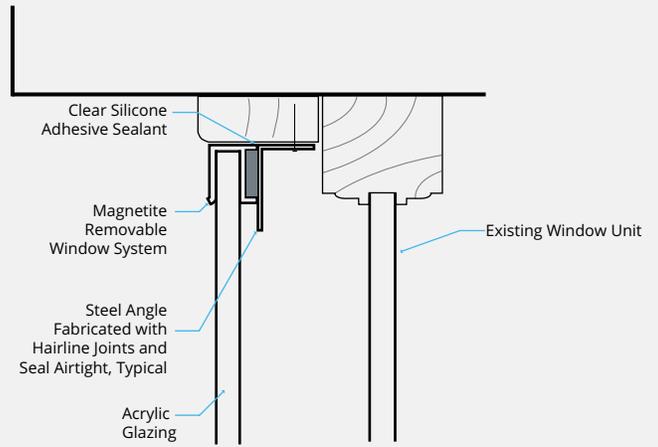
## Existing Window

Magnetite is designed to fit any shape or style of window.

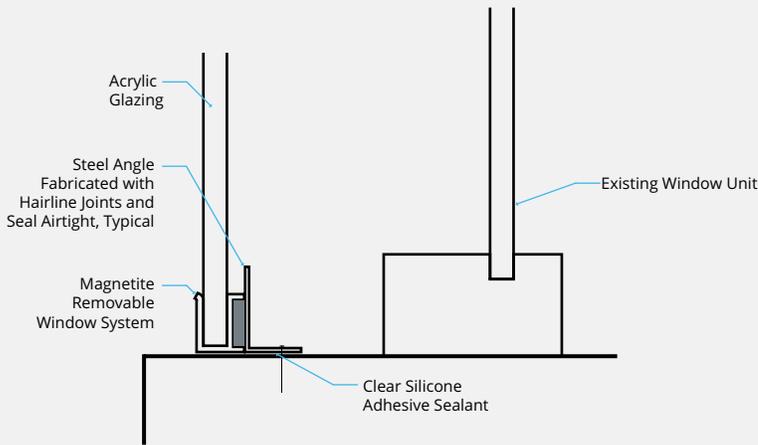




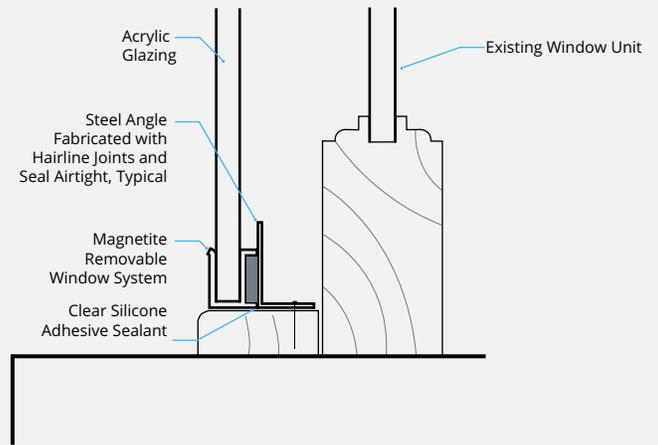
WINDOW DETAIL - SILL



WINDOW DETAIL - SILL (Stop Mount)



WINDOW DETAIL - SILL



WINDOW DETAIL - SILL (Stop Mount)

Magnetite Window Systems are able to be Mounted with a Variety of Configurations.

# Facts About Acrylic

## Density

Acrylic is less dense than standard glass, meaning it is cheaper to produce, it weighs less, it is easier to move around, and it costs less to transport. Acrylic is only half as dense as glass and has a greater ability to bend. Its flexibility allows acrylic to distort its shape without harm, making it resistant to impact: A sudden blunt pressure does not break acrylic, whereas it would shatter glass in an instant. Cutting acrylic is easier than cutting glass, too; you can either score it or break it, the same techniques used for cutting glass, or by using a suitable hacksaw or power saw. Also, a soldering iron can melt through acrylic quite efficiently.

## Strength

Acrylic is 17 times stronger than glass, requiring greater force to break it. This gives acrylic an obvious edge in situations where damage to a window due to impact could cause a fatal loss, such as on in a submersible vehicle like a boat or submarine. Acrylic's impact strength is higher than glass, so it cracks instead of shattering. In the automobile industry, where controlled shattering is desired for safety glass, tempering is required before standard glass will shatter in any sort of predictable manner.

## Surface and Applications

The surface of acrylic is softer than that of glass, which is why it is not scratch resistant--although scratches and blemishes in acrylic buff away easier. The same scratches on mineral glass would require replacement of the entire pane. Another advantage of acrylic is that you can bond several panes together, joining the seams to create one piece—you could create a solid container of acrylic, for instance. It's an ideal application for a fish tank.

## Transparency

Acrylic is as clear as optical glass but it allows more light while also filtering ultraviolet. Glass allows 80 percent to 90 percent of visible light to pass while acrylic transmits 92 percent. And acrylic does not yellow with age or appear milky, as thicker panes of glass can.

## Insulation

When it comes to insulation, acrylic is seven times more efficient than glass in reducing temperature flux, which means cool or warm air outside penetrates less easily than it would through standard glass. That can save you money on your heating bill.

## **NOTE: UV Rays Are Damaging**

Magnetite also carries a UV Inhibiting Acrylic, so it blocks 99.9% of all harmful UV rays.

# Our Products



## Heritage Series

Magnetite specializes in addressing window needs without breaking the bank. The patented acrylic window panels preserve the look, structure, and character of your existing windows. At the same time, Magnetite's interior panels give your windows additional thermal efficiency, better sound control, and they virtually seal all air leaks. If you are seriously considering replacing your windows, contact Magnetite and preserve the integrity and style of your home, business or historic property.



## Heatshield HP/IR Series

Magnetite's Heatshield High-Performance Infrared Rejecting Series is a MUST for any sun-struck window! Imagine the benefits of combining 35 years of proven results from Magnetite's patented engineered insulating system with the tremendous heat rejection of this modern technology! Comfort and savings without question! High (VLT) Visible Light Transfer that allows for continued natural daylighting. Unbelievable (TSER) Total Solar Energy Rejection for relief from solar heat gain.



## Sound Control Series

Magnetite's Sound Control Series is able to provide a window solution that reduces the noise coming through your current window by up to 70% and offers an STC rating of 48+ (depending on the install) for a fraction of the cost of soundproofing windows. Say hello to peace and quiet, and more savings in your wallet with Magnetite acrylic sound control window panels.



## Energy Efficiency Series

One component of every home or business that hasn't really improved over the last thirty years is the window. Windows are still offered in single or dual pane with a wood, vinyl, or aluminum frame. Even after a low-e coating is applied, the average efficiency of installed windows is still only an R-1. Magnetite offers home and business owners a way to make their entire window system up to 115% more thermally efficient.

# Our Products (continued)



## **Museum/UV Series**

Damaging UV rays can destroy anything they touch. Have you ever seen washed out posters in a storefront window while shopping? The same damage is being done in your home and business to your furniture, drapes and other valuables through your existing windows. Magnetite's Museum/UV Series Panels provide the same heat blocking, raised comfort levels and energy saving performance of low-e replacement windows with the added benefit of protecting your home or business from 99% of the damaging UV rays.



## **Eclipse Series**

Our Eclipse Series Panels allow you to enjoy all of the same benefits of other Magnetite Panels along with an added bonus of blocking out all visible light transmission (VLT). These panels are great for bedrooms, offices, meeting rooms, recording studios, home theater rooms and more. When you want to let the light in again you just remove the panels from the Magnetite aluminum frame to reveal the original windows. A great addition to any Magnetite System.



## **Privacy Series**

Our Privacy Series Panels are able to diffuse light transmission while blocking out any visible details or defining shadows. A great addition to any bathroom, meeting room or any window that needs added privacy. Create a custom privacy room in no time. Keep important visual information private. Have split window panels? No problem, Magnetite will fit any style or size of window.



## **Screen Series**

Turn your home or office into a comfortable, breezy, bug free zone in no time with our Screen Series Panels. These specially designed screened panels allow you to create the feel of an enclosed patio while blocking out blistering UV rays from the comfort of any room in your home or office. The continuous seal keeps insects out as well as blocking out entering sun glare while providing airflow. Durable and lightweight material made to last. Also works as sun screening for existing patio rooms!

# Magnetite for Historic Properties

Owners of historic buildings know that when it comes to the windows of any structure, they really are the heart and soul of the building. Windows, like the architecture are period specific, but unlike the architecture, they are much easier to remove and replace. This fact alone places every historic building on a path to struggle to retain its historical look, feel, and significance.

This struggle is alive and well in every historic district across the country. Owners of a historic building know when someone in their district changes out windows or does any “upgrade” that diminishes the original historical facade of a building. Magnetite has been working closely with historic districts, private owners, and government organizations to preserve the original beauty and historic significance of windows. If you are looking for increased energy efficiency and improved sound control while preserving the National Registrar’s recognition of your home or business, then Magnetite can help...without the significant cost of rebuilding or replacing your windows. warmer you are. The same is true for a building; the better a wall, ceiling, or window is at resisting temperature change, the higher its R-value will be.



# Magnetite for Residential Properties

Magnetite Window Panels are designed to provide superior insulating abilities without the high costs associated with replacement windows. These insulating marvels are a unique approach to insulated windows. Magnetite Panels are installed on the interior of your existing windows. There is no messy construction and they cost up to 40-60% less than replacement windows!

Magnetite specializes in providing a premium window solution product at a price that is much lower than replacement windows. Not only does Magnetite beat the competition in pricing, but your window system will have better sealing, insulation, efficiency, and soundproofing than the alternatives.

Magnetite Window Panels are able to fit any size and shape of your existing windows. Have blinds or other window treatments? Magnetite allows you to keep them without interference.



# Magnetite for Commercial Properties

The Department of Energy estimates that nearly 40% of all energy consumed by businesses goes to offsetting the inefficiency of the windows in the business. When business deals are won based on fractions of a penny, how can you afford to only get sixty cents on the dollar for the electricity and natural gas that your business buys. Business is a fine balance between immediate needs, long-term investments, and the seemingly immovable bottom line.

If you are looking for a way to lower your cost of doing business while making a smart investment in the long-term vitality of your company, Magnetite can give you a few options. Magnetite addresses building inefficiency starting with the biggest culprit, your windows. The patented acrylic panels effectively reduce incoming noise, they increase window efficiency, and they do so without changing the look of your business. The best part about it is that all of this is done for 40-60% less than the cost of replacement windows, it involves no messy install, and requires no downtime for your operations.



# Case Studies



## **Desert View Grand Canyon**

The structure, built in 1930, was originally used as a hiker's way-point at the very edge of the canyon rim. As one of the premier options for historic window preservation, Magnetite was contracted to address the thermal and acoustic inefficiencies of the windows in the caretaker's residence. Because the removal and replacement of the original single-pane, wooden, sash windows was out of budget, a more cost-effective option was needed. Preserving the building's historical designation while making the windows more efficient and staying within budget made Magnetite the obvious choice.



## **The Octagon House**

The Octagon House located in Washington, DC, just blocks from the White House. It was built in 1799 and is the oldest residential structure in the city. It served as the White House in the early 1800's and is place where the Treaty Of Ghent was signed ending the War of 1812. This historic building is now the home of the American Institute of Architects Legacy. The windows in this building were large and very leaky. Magnetite window panels stopped the air infiltration without changing the appearance of the existing windows.



## **Rosedown Plantation**

Rosedown Plantation was built in 1835 and may be the most recognized plantation in Louisiana. The caretakers were concerned about UV rays destroying the draperies and furniture so they wanted something that would stop the UV without changing the original look and style of the building. Magnetite solved the problem using a "museum class" acrylic that blocks more than 99% of the harmful UV rays. Since the Magnetite panels are easily removable by the staff, the windows can be cleaned and still operate just like they did nearly 200 years ago.

# Case Studies (continued)



## **Clinton Courthouse**

In the 1800's no one thought about the noise that would one day come from the trail that ran along the side of the courthouse. That trail is now Highway 10 and the noise from the cars and trucks made it uncomfortably loud in the courtroom. Magnetite soundproofing window panels were installed and the problem is now solved. Since they are nearly invisible, the beautiful windows can be seen, but the noise is blocked.



## **The Lancaster Hotel**

The Historic Lancaster Hotel in Downtown Houston has Elegance and Style, but like many hotels in the area, they had a traffic noise problem. They solved it by contracting with Magnetite and the guests are loving it!! No more traffic noise and no more energy loss coming through their beautiful windows. Magnetite Window Systems are a fraction of the cost of laminated glass.



## **Gretna City Hall**

Gretna City Hall recognized long ago that it was wasting money trying to keep the building's offices comfortable. Mayor Ronnie Harris had previously installed Magnetite windows in his historic home just a few blocks away. Because of his experience with Magnetite's custom window panels in his home he petitioned city council to invest in a complete window overhaul with Magnetite. The investment has paid for itself with amazing energy savings and a very comfortable staff.

# A Partnership To Take Your Hat Off To...



## A Great Opportunity

We are looking for dealers across the nation who want to be part of an extraordinary team that prides itself on providing great alternatives to replacement windows. By adding Magnetite to your list of products or services, you offer customers a great product at a great price over replacement windows, **up to 40-60% over replacement windows!** Magnetite has installed over 5-million panels across the globe and has a proven track record of satisfaction and return customers.

If you think you have the drive to be part of our amazing dealer network, contact Magnetite directly for more information on our dealership program and speak to a company representative.



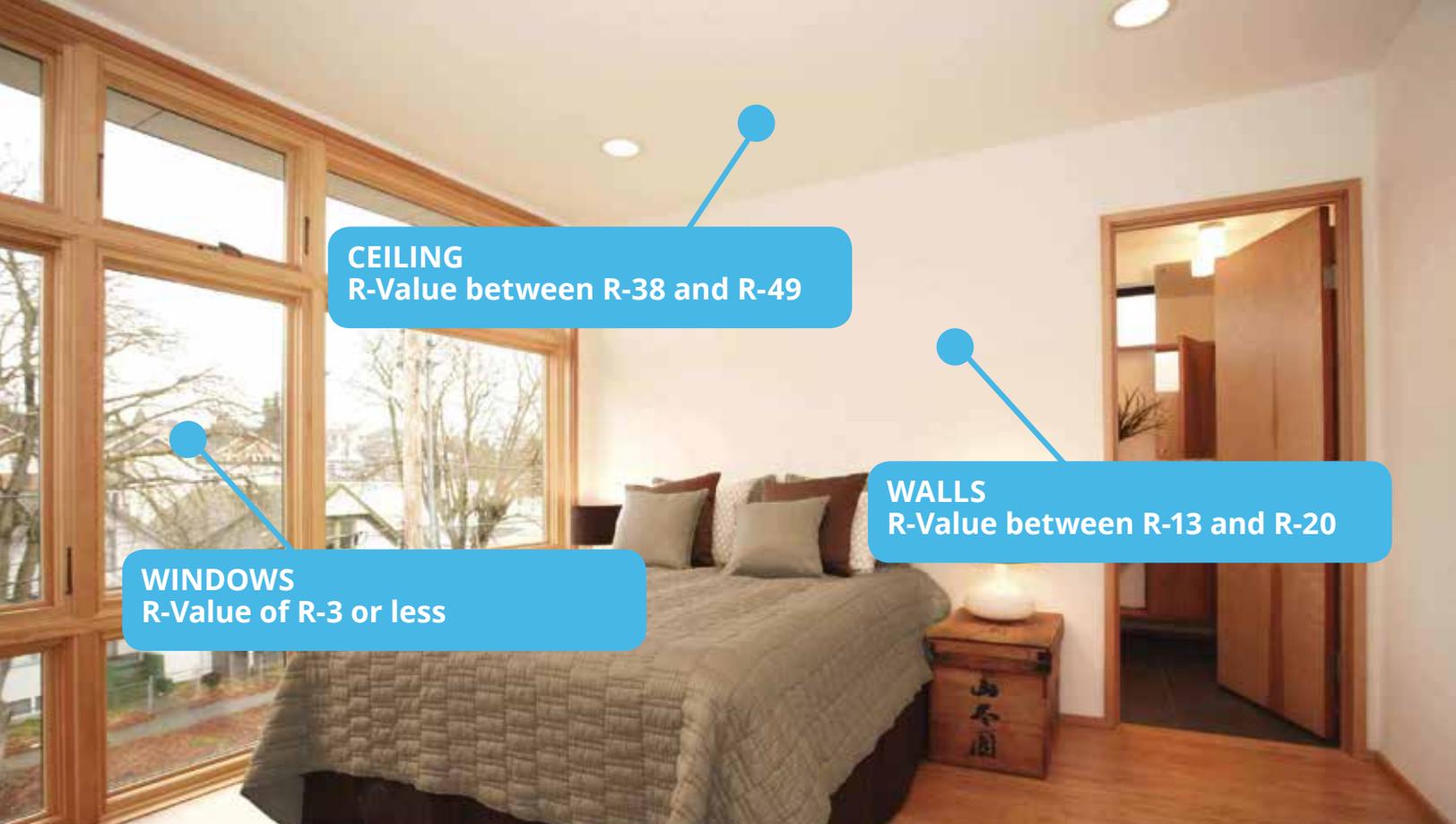
# What is R-Value?

The concept of R-Value is one of those terms that many people are familiar with, but most may not fully know what it means. The short of it is this: R-value is all about insulating against, or resisting, temperature change. When it comes to your home or business, Magnetite Southwest believes that R-value is a REALLY big thing. R-value affects the soundproofing of a building, the comfort of a building, and the energy costs of a building.

When you grab a blanket to protect against the cold evening chill you don't grab a blanket full of holes; you grab a good one. The better the blanket, the warmer you are. The same is true for a building; the better a wall, ceiling, or window is at resisting temperature change, the higher its R-value will be.



Sadly, our homes or businesses all battle having a blanket that is full of holes.



**CEILING**  
R-Value between R-38 and R-49

**WINDOWS**  
R-Value of R-3 or less

**WALLS**  
R-Value between R-13 and R-20

# Putting it all Together

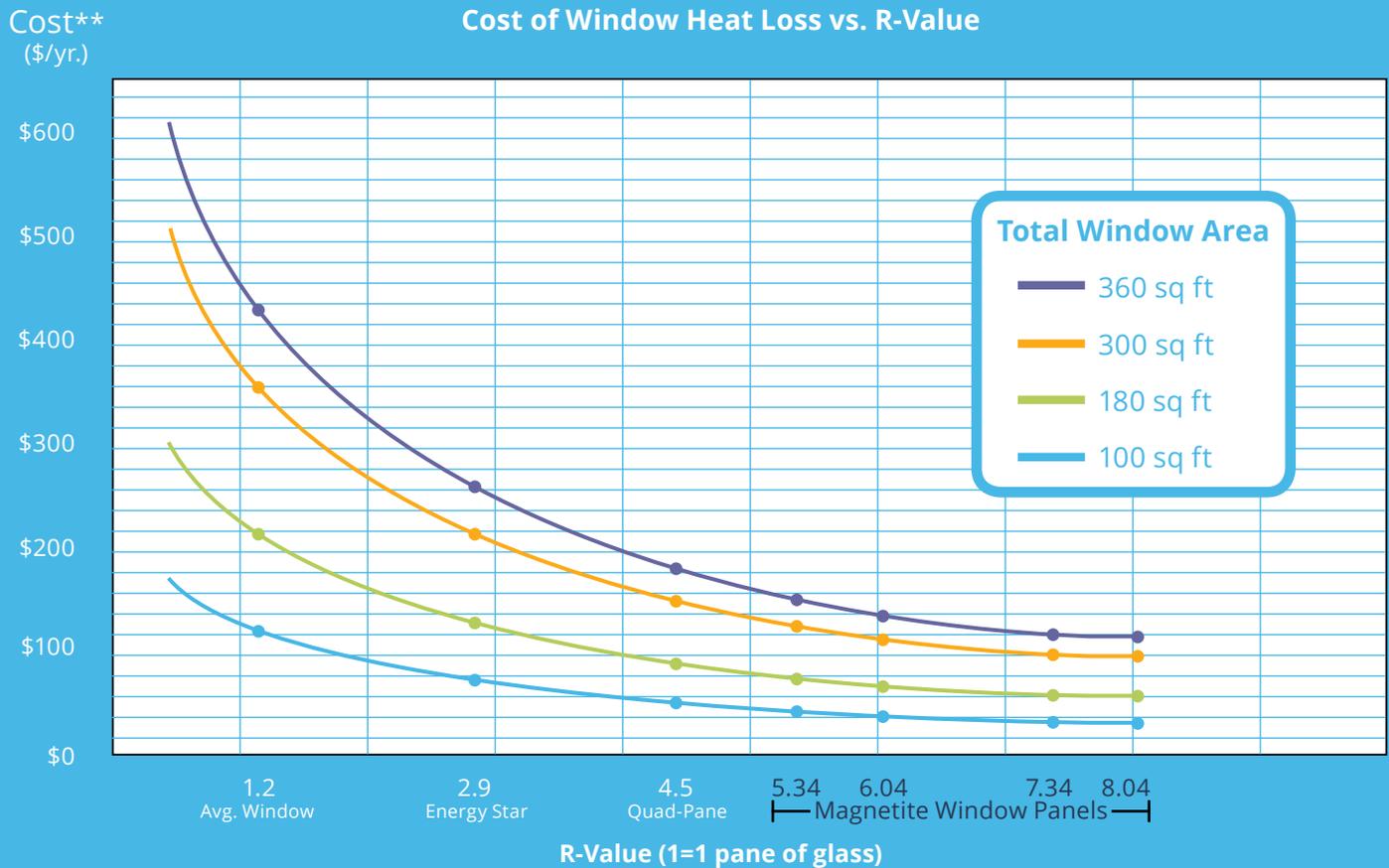
In certain areas United States, the building code calls for walls to have an R-value between R-13 and R-20 and ceilings should have R-values between R-38 and R-49. New windows on the other hand only have to have an R-value of less than R-3 (many older windows have an R-value of around R-1). This means that, **at their very best**, your windows are still 4X less efficient at stopping heat than the walls surrounding them and 12X less efficient than the ceiling above.

With Magnetite's acrylic insulating window panels installed as a part of your window system, you can upgrade your windows to be nearly as quiet as your walls, quite a bit more comfortable during hot summers and cold winters, and nearly as efficient as your walls (up to R-8\*) resulting in a reduced energy bill. No replacement window on the market today can match what Magnetite can do for you.

\*The final R-value of your window system may vary. These figures are based on a professionally installed Magnetite panel for a single-hung window in a 2"x4" wall cavity.



## Yearly Savings Chart



### Window Type with Magnetite

Window Type with Magnetite	R-Value =1/U-Value	U-Value
Single-Pane/Aluminum Frame, with Thermal Magnetite*	5.34	0.19
Single-Pane/Aluminum Frame, with Acoustic Magnetite*	6.04	0.17
Dual-Pane/Vinyl Frame, with Low-E Argon and Thermal Magnetite*	7.34	0.14
Dual-Pane/Vinyl Frame, with Low-E Argon and Acoustic Magnetite*	8.04	0.12

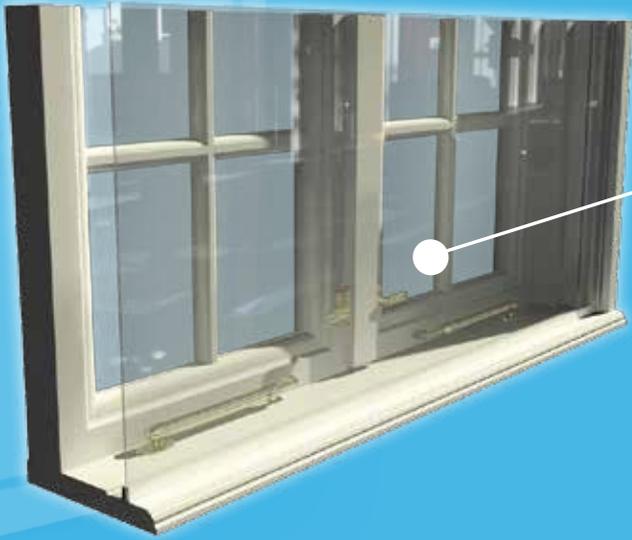
\*The final R-value of your window system may vary. These figures are based on a professionally installed Magnetite panel for a single-hung window in a 2"x4" wall cavity.

\*\*Cost per year is dependant upon personal consumption habits and overall structural efficiency. Your actual cost per year may vary from the example given.

# Performance Matters

Magnetite window panels are a unique interior mounted insulating panel that attaches and seals magnetically around the entire perimeter of a window, no matter it's size or shape. These interior insulating window panels provide far better noise insulation than single glazed windows. They also provide increased energy savings than standard single glazed windows by doubling the resistance to conductive heat loss and virtually eliminating air infiltration.





# Better than Replacement

Magnetite offers a superior solution for all of your existing windows. Magnetite seals out windows of air leaks, keeps our homes and businesses quiet, and makes our indoor environments significantly more thermally efficient. **Save Up to 40-60% Over Replacement Windows.** Eliminate unwanted noise, enjoy thermal comfort, and become more energy efficient.

## — Magnetite Window Panels —

	Magnetite Thermal	Magnetite Acoustic	Magnetite Infrared	Solar Screens	Window Film	ENERGY STAR Windows
Increases window R-Value	✓	✓	✓	-	-	✓
Reduces incoming noise	✓	✓	✓	-	-	✓
- Acoustic Grade Soundproofing	-	✓	-	-	-	-
Preserves existing window	✓	✓	✓	-	-	-
Approved for historic applications	✓	✓	✓	-	?	?
Retains window aesthetics	✓	✓	✓	-	?	-
Blocks harmful UV rays	✓	✓	✓	✓	✓	✓
Increases window TSER*	-	-	✓	✓	✓	✓
Made with optical-grade acrylic	✓	✓	✓	-	-	-
Retains 100% of window clarity	✓	✓	-	-	-	-
Panels are removeable	✓	✓	✓	✓	-	-
Can have multiple panels per window	✓	✓	✓	✓	✓	✓
Windows can still be opened while installed**	✓	✓	✓	✓	✓	✓
Can be installed on sliding doors	✓	✓	✓	-	✓	✓
Reduces window draftiness	✓	✓	✓	-	-	✓
No messy install	✓	✓	✓	✓	✓	-
Comes with a 10yr warranty	✓	✓	✓	?	?	?
Easily installed by homeowner	✓	✓	✓	✓	-	-
Can cost as much as a car	-	-	-	-	-	✓

\* Magnetite Infrared increases a window's Total Solar Energy Rejection (TSER) by blocking the intense heat of the Infrared spectrum.

\*\* Requires that a window be made of two or more Magnetite panels.

Window Type	R-Value =1/U-Value	U-Value
Single-Pane, Aluminum Frame	0.9	1.08
Single-Pane, Wood	1.0	0.98
Glass Block, 6 Inch	1.1	0.88
Double-Pane/Aluminum Frame, No Thermal Break	1.2	0.81
Average Installed Window in the United States	1.2	0.81
Double-Pane/Aluminum Frame, with Thermal Break	1.7	0.6
Double-Pane/Wood or Vinyl Frame	2.0	0.51
Single-Pane + Interior Film	2.0	0.5
Single-Pane + Ext. Storm	2.0	0.49
Double-Pane/Wood, Argon Gas	2.2	0.46
Double-Pane/Fiberglass or Insulated Vinyl	2.3	0.44
Double-Pane/Med Solar Low-E	2.5	0.4
Triple-Pane/Wood	2.6	0.39
Single-Pane + Low-E storm	2.6	0.38
Triple-Pane/One Low-E	2.9	0.35
Double-Pane Wood/Vinyl Low Solar Low-E Argon	2.9	0.34
Average ENERGY STAR Window	2.9	0.34
Single-Pane + Storm + Film	3.1	0.32
Double-Pane Wood + Exterior Storm	3.1	0.32
Triple-Pane/Two Low-E	3.2	0.31
Double-Pane Wood Low-E + Storm	3.4	0.29
Quad-Pane/Good Spacer, Two Low-E, Krypton Gas	4.5	0.22
Rated "R-5"	5.0	0.81
<b>*Single-Pane/Aluminum Frame, with Thermal Magnetite</b>	<b>5.34</b>	<b>0.19</b>
<b>*Single-Pane/Aluminum Frame, with Acoustic Magnetite</b>	<b>6.04</b>	<b>0.17</b>
<b>*Dual-Pane/Vinyl Frame, with Low-E Argon and Thermal Magnetite</b>	<b>7.34</b>	<b>0.14</b>
<b>*Dual-Pane/Vinyl Frame, with Low-E Argon and Acoustic Magnetite</b>	<b>8.04</b>	<b>0.12</b>

\*The final R-value of your window system may vary. These figures are based on a professionally installed Magnetite panel for a single-hung window in a 2"x4" wall cavity.

# No Comparison

Magnetite was specifically designed to address the inefficiencies of windows in high-rise offices and apartments. However, it was soon found that ANY existing window could be made more thermally efficient, more acoustically insulating, and more tightly air sealed when paired with one of Magnetite's interior acrylic panels. The end result is a window that is drastically more efficient in a multitude of ways.



# Let's Get Techy

Magnetite was purposely built and designed to improve on centuries-old window technology. Magnetite incorporates the construction of your current window to then maximize its efficiency. Magnetite utilizes a magnet to create a dead-air seal which in turn increases the R-value of a window system. Magnetite uses optical-grade virgin acrylic (in either thermal, sound control, or IR blocking) that is 18 times stronger and seven times more thermally efficient than glass.

## Thermal Insulation

The addition of our **Magnetite Optical Grade Acrylic Windows** can provide up to **115% better thermal resistance** than a window with a single pane of glass.

**Glass:** 5 to 6 btu/hr/sq ft/°F (According to CRC Handbook of Chemistry)

**Acrylic** 0.7 to 1.7 btu/hr/sq ft/°F (According to Handbook of Plastics indicates that acrylic is up to 8 times more thermally insulating than glass)

**U-Value of .48** in combination with single pane window, as determined by John M. Yellott Laboratories, Arizona, in tests performed.

**Heat loss reduction** of 412.5 btu/hr/ft sq (from 687.0 to 274.5) when applied to single pane window. As determined by Architectural Testing Inc., York, PA, in tests performed.

## Shatter Resistance

Our Magnetite Optical Grade Acrylic Windows are 17 times stronger than a single pane of glass. Which means that they are virtually shatterproof.

## Sound Control

Our Magnetite retrofit double glazing can reduce noise by 70% through your existing window. Sound Transmission Class (STC rating) is used to measure the resistance to noise that will pass through a partition. The STC Rating can improve from 28 (Dual 1/8" glass panes with 3/8" air space) to 41 when Magnetite is added. The effective **sound transmission reduction is over 70%** (Particularly effective in 250-4000 Hz range) As determined by Acoustical Systems, Austin, TX NVLAP Lab Code# 100286-0, ASTM-E90 Test AS-TL2739.

## UV control

**Ultraviolet light waves between 300 and 355 reduced by 99.1%** when passing through acrylic sheet...and UV light waves between 360 and 375 reduced by 66.2%. As determined by DSET Laboratories, Inc., Phoenix, in tests performed.

## Air Infiltration

Virtually all air infiltration is eliminated. A Magnetite window air infiltration is rated at less than .01 cfm/lineal foot crack space, compared to DOE standard for storm windows of 2.0. Tested with 25 mph wind equivalent at The Associated Laboratories, Dallas, using ASTM E-283 test method. Similar results at the John M. Yellott Laboratories.

# What are STC Ratings?

**Sound Transmission Class** (or **STC**) is an integer rating of how well a building partition attenuates airborne sound. In the United States, it is widely used to rate interior partitions, ceilings/floors, doors, windows, and exterior wall configurations.

That's a bunch of fancy jargon that pretty much means that the STC Rating lets you know how well something stops noise. There are STC Ratings for all kinds of things. One nice thing about STC Ratings is that they are fairly easy to understand in a general sense... **BIGGER = BETTER.**

Another easy rule of thumb when it comes to STC Ratings is that they function in multiples of ten. For every increase of ten points in an STC Rating the perceived noise level is cut in half.

***For example:*** If an average conversation with a decibel level of 50dB is taking place outside of the average window with an STC Rating of 24, the person inside will be able to hear the conversation without any problem. If however, the STC Rating of the window is increased by ten points to 34, then to the person inside it would seem like the noisy conversation outside was half as loud as it was previously.

As a window solutions expert, Magnetite addresses noise control issues for flat glass, historic casement windows, modern dual-pane windows, and many other applications and we run into these queries all the time. With Magnetite's acrylic insulating window panels installed, your window system can have STC Ratings up to 54. If you are looking for a "soundproofing" option for your home or business, it's time to consider Magnetite.

STC Rating	Speech Audibility	Effectiveness
15 to 25	Normal Speech Understood	Poor
25 to 35	Loud Speech Understood	Marginal
35 to 45	Normal Speech Heard but not Understood	Good
45 to 55	Loud Speech Faintly Heard but not Understood	Very Good
55 and Higher	Loud Speech Usually not Heard	Excellent

Typical Sound Pressure Levels	Type	Decibel Rating
	Whisper	20 dB
	Avg. Conversation	50 dB
	Noisy Office	80 dB
	Subway Train	100 dB
	Thunder	115 dB
	Pain Threshold	120 dB

# STC Ratings Chart

A common acoustic issue in virtually any space is sound transmission. Sound transmission can be both airborne and/or structure borne vibration. Airborne sound travels through the air and can transmit through a material, assembly or partition. Sound can also pass under doorways, through ventilation, over, under, around, and through obstructions. When sound reaches a room where it is unwanted, it becomes noise. Noise such as that from automobiles, trains and airplanes can transmit through the exterior structure of a building.

Sound transmission can cause noise control, confidentiality, and privacy issues. Sound from a noisy environment such as a mechanical equipment room or an area with loud activities or music can transmit through a partition into a quieter space. This will cause unwanted noise within the quieter space. This is not only an annoyance; in several cases it can cause the quieter space to become unusable for its intended purpose. Several spaces require confidentiality. Offices of counselors, lawyers, or human resource departments cannot function in a space where sound will transmit through the surrounding walls and into an adjacent space. In most other office situations if confidentiality is not an issue, privacy is. If sound transmission is not properly controlled, the space or environment will not provide privacy for its users.

## STC Ratings Comparisons

Magnetite offers superior soundproofing over the added cost of specialized soundproofing window replacements. Note: In the list below, the higher the number, the better sound control you will have in your home or business.

Insulation Type	STC Rating
Uninsulated Wall	33 - 35
Insulated Wall	34 - 39
Brick Wall	47
Block Wall	48
Single-Pane Window	26 - 28
Dual-Pane Window	26 - 33
Soundproofing Window + Single-Pane Window	43 - 49
Soundproofing Window + Dual-Pane Window	45 - 54
<b>Magnetite Acoustic + Single-Pane Window</b>	<b>41 - 47</b>
<b>Magnetite Acoustic + Dual-Pane Window</b>	<b>48 - 54</b>

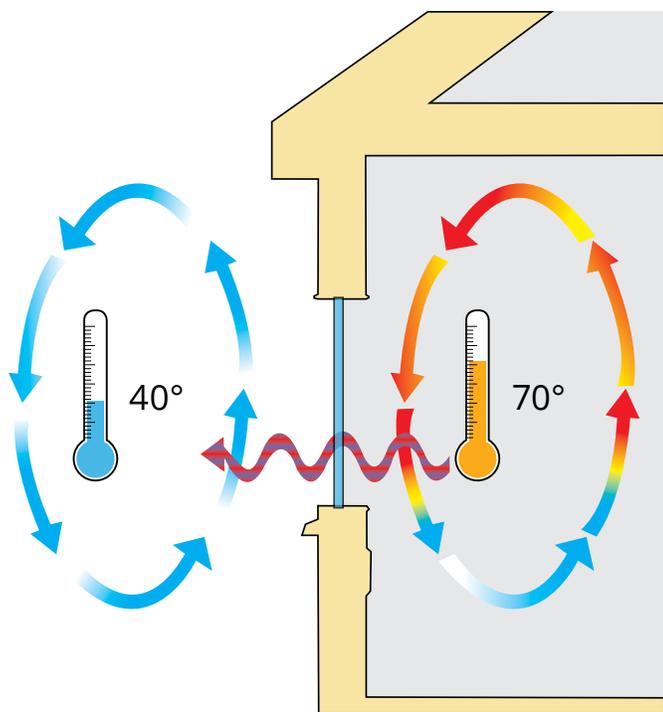
\*The final R-value of your window system may vary. These figures are based on a professionally installed Magnetite panel for a single-hung window in a 2"x4" wall cavity.

# Why Inefficient Windows Feel Leaky

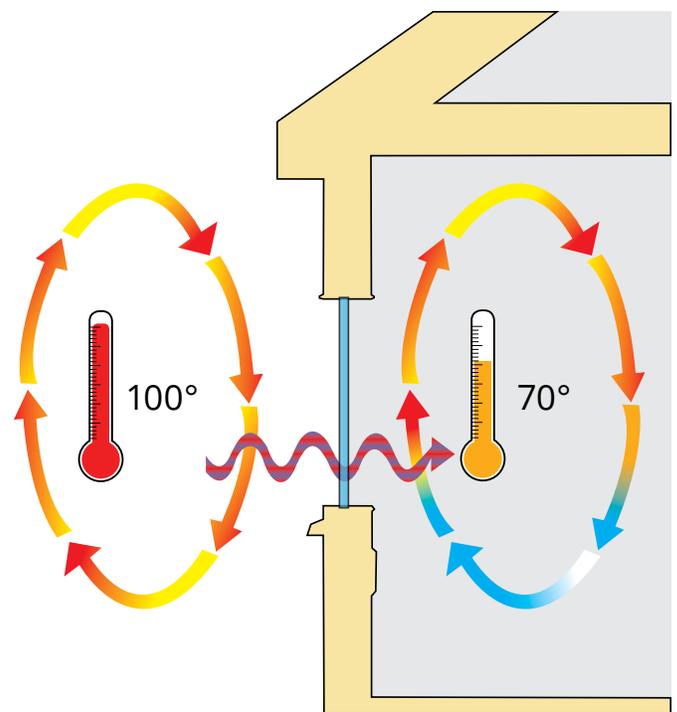
Homeowners often approach us in their search for energy efficient windows because they are trying to address their current “leaky” windows. While Magnetite’s acrylic insulating window panels are amazingly energy efficient and also stop the leaks in a window better than the competitors. Often times these perceived leaks are something else entirely. What is thought of as a leaky window may really just be a convective loop caused by an inefficient window.

## Convective Looping

If it's Cooler Outside



If it's Hotter Outside



## The Convective Loop

This phenomena makes it feel like air is moving through a leak in your window when in fact the air is just moving because you window is inefficient. The greater the temperature difference between inside and outside and the less efficient your window is, the faster the convective loop moves. This convective loop not only makes your window feel leaky, but it also does a great job of making your rooms hotter during the summer and colder during the winter.



*IT'S NOT A WINDOW...IT'S*

**Magnetite**

**INSTALLED & SERVICED BY:**



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