

# CHAMPION COMPLETE GUIDE TO **WINDOW REPLACEMENT**



# TABLE OF CONTENTS

- Introduction.** . . . . . **1**
  
- Section 1:**
- When Should I Replace My Windows?** . . . . . **2**
- Is It Time To Replace My Windows? . . . . . 3
- Should I Replace My Builder Grade Windows?. . . . . 6
  
- Section 2:**
- What Are The Types Of Windows, And Which Is Best For Me?** . . . . . **9**
- Window Type Basics . . . . . 10
  
- Section 3:**
- What Do I Need to Understand About the Anatomy of a Window?** . . . . . **14**
- What Parts Make up a Window?. . . . . 15
- What Is Window Glazing?. . . . . 18
- Types of Window Glass: A Glossary of Glass . . . . . 20
  
- Section 4:**
- What Do I Need to Know About Energy Performance and Energy Efficiency?** . **22**
- Windows and Energy: A Glossary of Terms . . . . . 23
- How Energy-Efficient Windows Help You Save Money . . . . . 27
  
- Section 5:**
- What Are the Material Choices for My Windows?** . . . . . **29**
- Your Windows, Your Way . . . . . 30
- What Kind of Window Frame is Right for You? . . . . . 32
- Color Options for Vinyl Window Frames. . . . . 35
- 6 Things to Know About Window Locks . . . . . 37

# TABLE OF CONTENTS

## Section 6:

<b>How Can I Choose the Best Replacement Window Company? . . . . .</b>	<b>39</b>
5 Questions to Ask When Choosing a Window Replacement Company . . . . .	40
How to Spot A Deal That’s Too Good to Be True . . . . .	43
How Much do Replacement Windows Cost? . . . . .	45

## Section 7:

<b>What Should I Expect From the Window Buying and Installation Process? . .</b>	<b>48</b>
Shopping for Replacement Windows? Here’s What to Expect . . . . .	49
What to Expect During Your Window Installation . . . . .	51

<b>Appendix . . . . .</b>	<b>54</b>
Windows Buyers’ Guide Checklist . . . . .	55
Champion Windows Meets Energy Star <sup>®</sup> 7.0 Requirements. . . . .	56



## INTRODUCTION: HOW TO USE THIS GUIDE

Windows connect us to our surroundings. They let the light into our homes and allow the breeze to flow through our rooms. They're both aesthetic and functional, and when they are in good working order, there is barely any need to think of them at all.

But they don't last forever. A home with history is one that will inevitably need a new set of windows at some point.

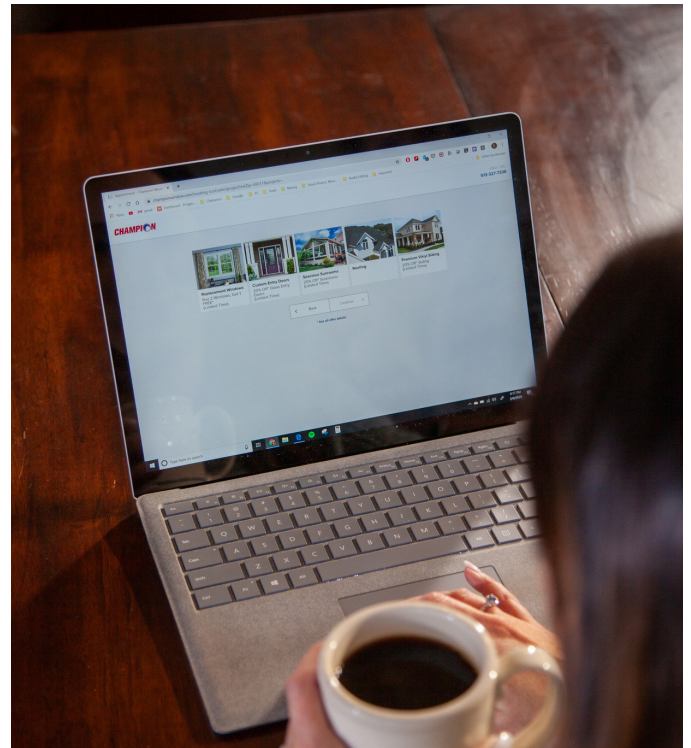
We know that shopping for replacement windows can feel daunting. There are measurements and technical terms. There are material, color, and style considerations. There are questions about energy efficiency and sunlight. There are also worries. Most notably, this one: *Will I make the right choice?*

Champion Windows is providing this guide because we **make** windows, we **sell** windows, and we **know** windows. That's why we want to equip you with the knowledge you need to make the best choice for your home.

Every section of this guide is dedicated to answering a different question, from "When should I replace my windows?" all the way through "What should I expect during the installation process?"

Skim, skip around, or follow the links to read more in-depth articles about the technical aspects of window manufacturing. Because we do it all, we thought it would be helpful to share what we know. Take what you need, and remember, a Champion representative is always just a click or call away.

Let's get started finding your new windows.





# SECTION 1: WHEN SHOULD I REPLACE MY WINDOWS?

## **In this section, you'll learn:**

- The most common reasons homeowners buy replacement windows.
- What kinds of window damage can be repaired, and when it's worth it to replace.
- The issues with builder-grade windows, and how upgrading can save you money in the long run.



# IS IT TIME TO REPLACE MY WINDOWS?

## CHAMPION KEY TAKEAWAYS:

- Window glass, window frames, and window operability deteriorates over time, and windows in older homes often need to be replaced.
  - Older windows that don't have proper insulation from heat, cold, and noise can be a nuisance.
  - Replacing your windows with modern, energy-efficient windows can lower your energy bill and improve the look of your home.



Windows are a key element in how your home functions—and how it looks. You may have an inkling already if you need new windows. But it's not just guesswork. To make it easy for you to determine if replacement windows are right for your home, we've put together a list of the most common reasons homeowners replace their windows.

### Your windows are drafty

Do you feel cold air seeping through your windows? This will be especially noticeable in the winter months, and when the wind blows. The glass probably feels either warm (in the summer) or cold (in the winter), which is a sign of poorly insulated windows. It's uncomfortable to live with drafty windows, and can affect your sleep and even make allergies worse. It also winds up costing you money (see the next point).

### You've noticed an increase in your energy bills

Drafty, cold windows mean your furnace has to work harder. Hence, you may see an increase in your bill. The same is true in the summer months: the air conditioner has to work harder to cool your space, because the hot air seeps in. New, energy-efficient windows can drastically reduce your energy bill.



## **Your windows just don't work very well**

If your windows are in poor working order — such as broken cranks, trouble opening and closing, or locks that no longer work — you are likely wasting time, energy, and money. Broken windows can also be a safety hazard, especially if you have children. New windows will make life far easier, and be a wonderful improvement to your home.

## **Outside noises are seeping in**

Window technology has greatly improved, and older windows don't provide the insulation from noise that newer ones do. New windows can make a huge difference in how much outside noise you hear inside your home.

## **There is often condensation inside your window**

Condensation forms when warm, moist air meets a cold surface. In this instance, that surface is your window. Not only is this a sign that your windows aren't energy efficient; the moisture can also be harmful because it can lead to warping, mold, and other problems.



## **Your windows are in general disrepair**

If the glass in your windows is cracked or foggy, your windows can't do their job of providing light to your home. You also can't take advantage of any views your windows are meant to maximize. Other damage, like warping or rotting around the windows, also compromises your windows. Inspect your windows both inside and outside to assess how damaged and worn they are.

## **You notice moisture between window panes**

If you see droplets of water between the panes of glass, it's a sign that the seal between the two panes of glass is broken. The seal is what prevents heat from escaping. But when it does escape, it hits the coolness of the exterior pane of glass and causes moisture. Windows with worn out seals definitely need to be replaced.



### **The frames are decaying**

What kind of shape are your window frames and sills in? Is there rotting and mold around your windows? While quality windows last a long time, no windows last forever. Frames wear out, wood warps with moisture, and mold sometimes takes root.

### **The windows make your home look dated**

If you live in an older neighborhood, you can probably spot the other homes that still have the original windows. New windows freshen up and modernize a home. Also, older windows are most likely single pane windows, which have no insulation or soundproofing. New windows won't just increase your curb appeal; they'll also decrease your energy bill.

### **Is it possible to repair my windows instead of replacing them?**

Depending on which of these issues you're dealing with in your current windows, you may be wondering: Can't I just repair my windows?

The short answer is maybe, but it's not very likely. Most companies require full replacement if you don't already have their windows in your home. However, repairing makes sense in some situations, like if you have a historical home and switching to modern windows would compromise the integrity of the home. For the more serious issues though, replacing your windows will be the best option.



# SHOULD I REPLACE MY BUILDER GRADE WINDOWS?

## CHAMPION KEY TAKEAWAYS:

- Builder grade windows are the inexpensive windows that home builders use to save money, and they are not meant to last.
- Because builder grade windows are made with low cost materials and are often installed improperly, within just a few years, the windows may have seal failure and hardware failure.
- Builder grade windows usually lack good insulation; upgrading to new, energy-efficient windows can lower your energy bill.



Homebuilders are not experts in windows. They are experts in building homes as efficiently as possible. Naturally, they want to save money and maximize profits during the construction process. This is why they often use low quality, inexpensive windows.

We call these lower quality windows “builder grade windows.” Some builders allow you to upgrade to a higher quality window. The majority of home buyers don’t upgrade, because one window seems much the same as the next.

But as homeowners often find out a few years down the road — when the windows won’t open properly or their home is continually drafty — not all windows are created alike.

Builder grade windows are typically not designed to have long term durability. It is not uncommon for homeowners to begin seeing issues with their builder grade windows after 5 to 10 years.

The combination of low quality materials and incorrect installation can create a number of problems for homeowners with builder grade windows.



### **Problem #1: Seal failure**

If you notice that your windows constantly look foggy and just won't come clean, this is a sign of seal failure. Seal failure is what happens when the seals around your windows fail and excess moisture gets trapped between the panes of glass. This is usually the result of incorrect installation. The only way to fix this is to have the window replaced correctly with insulated glass.



### **Problem #2: Hardware failure**

After a while, homeowners may notice issues operating their windows, such as failure to stay up, and difficulty with closing and/or locking the window. These are signs of hardware failure. If a window cannot open or close easily, that is a sure sign that the windows are made from low quality materials or that they were not installed correctly.

### **Problem #3: No insulation**

If your home has builder grade windows, there is a good chance the windows weren't properly insulated when they were installed. Improperly insulated windows can become a source of drafts and can lead to higher energy bills and a less comfortable home. Windows need to be properly insulated to keep the outside temperatures where they belong — outside!

### **Benefits of upgrading from your builder grade windows**

There are many benefits to replacing builder grade windows with high quality windows that are properly installed. When you upgrade your windows to high quality, energy-efficient windows, you won't have to worry about having rooms in the house that are consistently too hot or too cold because of drafts or poor insulation. You can also cut your energy bills and increase the comfort of your home.

New windows will also enhance your home's curb appeal. You'll notice less issues with seal failure, and have less operating issues as well.



Another benefit of upgrading your builder grade windows is the opportunity to customize your windows. Most home builders do not give home buyers many options when it comes to their windows. Most are either white or tan, have limited grid options — if any — and come in standard styles.

When you upgrade to new windows, you have the ability to custom design your new windows to match your personal style. You can choose from a variety of colors, grid patterns, and even upgrade to different styles, such as a garden window above your sink.

## SECTION 2: WHAT ARE THE TYPES OF WINDOWS AND WHICH IS BEST FOR ME?

### **In this section, you'll learn:**

- The factors to consider when choosing your style of window.
- The main types of replacement windows and their defining features.
- The pros and cons of the different types of replacement windows.



# WINDOW TYPE BASICS

## CHAMPION KEY TAKEAWAYS:

---

- When it comes to replacement windows, you have many options in terms of both style and type of material.
- Climate, functionality, privacy, budget, and ease of cleaning all factor into homeowners' decisions about what type of window to buy.
  - Your replacement window sales representative should be able to review the pros and cons of each window type, and help you determine which is best for you.



Once you've decided that you need replacement windows, how do you narrow down your options for the best type of window for your home?

When you meet with a Champion representative, they'll walk you through the different styles of windows, and the pros and cons of each. But we know that many homeowners like to gather research on their own.

Choosing your window type is a matter of several factors, including:

- Personal preference and aesthetics
- The climate where you live
- How much protection from the sun's UV rays
- How important ease of cleaning is
- How important energy efficiency is to you
- How you need the window to function (windows that open vs. windows that are fixed)
- Privacy considerations vs. maximizing an amazing view
- Your budget

As we dig into learning about the different types of windows, we'll present pros and cons around these different areas for each window style.

You can learn more about any particular style of window by reading the article about it. But the glossary below offers a quick overview of the main replacement window types.



## Glossary of window styles

- **Single-hung window:** Single-hung windows have an upper sash and a lower sash. The lower sash can be opened, while the upper sash is fixed. The lower sash may pivot inward or slide upward.



- **Double-hung window:** Double-hung windows are among the most commonly installed in today's homes. Like single-hung windows, they have an upper and a lower sash. However, both sashes are operable in double-hung windows; sashes may slide or pivot.



- **Casement or awning window:** Casement and awning windows are operable, thanks to hinges on one side that allow sashes to swing out to the side. They usually open by using a crank handle.



- **Sliding window:** Sliding windows open by sliding the sash side-to-side horizontally (as opposed to vertically as in the case of a single or double-hung window). Sliders are best used in homes with shorter walls where the design calls for taller, more slender windows. You may also find them to be a good fit for areas where it may be difficult to open or close a window such as over a sink or appliance.



- **Bay or bow window:** Bow windows are a form of projection window, which means they stick out from the wall and out over the lawn. Bow windows are similar to bay windows in that they are angled or curved to create a bench-like space inside the house.



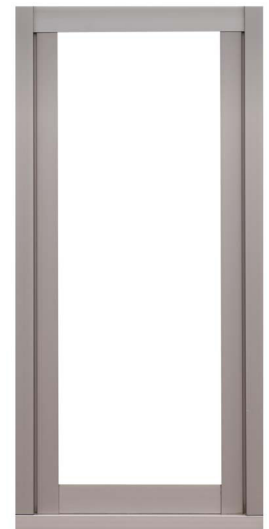
- **Garden window:** Garden windows resemble little greenhouses that extend outward from the house. They often have shelves that hold plants.



- **Picture window:** Picture windows consist of single panes of glass without any rails to obstruct the view. Also known as fixed windows — because they don't open — picture windows are designed to let in lots of light.



- **Storm window:** Storm windows are flat, exterior panels that are installed in the same frame as existing windows during the winter. They offer another layer of protection against drafts and heat loss.



- **Custom or shaped window:** Unlike standard-sized windows, custom windows have a design that's crafted to fit measurements that you, or a professional, provide. If you've got an existing frame to fill or want to add a brand-new window, custom windows offer a versatile solution to fit your space.



- **Basement hopper window:** These small windows are perfect for basement spaces, where you want some natural light and additional airflow. They are hinged at the bottom, and open at the top.



Read more about which window styles could be right for your home [here](#).



## SECTION 3: WHAT DO I NEED TO UNDERSTAND ABOUT THE ANATOMY OF A WINDOW?

### **In this section, you'll learn:**

- The main parts of a typical window.
- What window glazing is, and the types of window glaze.
- The different types of window glass, how they're manufactured, and some of their distinct properties.



# WHAT PARTS MAKE UP A WINDOW?

## CHAMPION KEY TAKEAWAYS:

- Windows have dozens of moving parts and pieces.
  - Understanding the anatomy of a window helps consumers be better informed while shopping for replacement windows.
  - Your sales representative should be able to explain what any part of a window is and why it's important.



Windows have a lot of moving parts and pieces. Some are in our everyday language, like window sill. Others like mullions and muntins sound more like creatures than pieces of window engineering.

In fact, the window industry uses a variety of terms that aren't common knowledge to most people. Knowing these terms and basic construction information about windows can help you in the search for new windows. It can also help you when talking to window contractors and sales representatives at showrooms or in your home.

### How much do I need to know about the parts of a window?

If the only thing you know about window sashes is the line from 'Twas the Night Before Christmas,' don't worry, we can explain what they are. We can also explain what jambs and balances and any number of other things are.

In fact, explaining the technical ins and outs of replacement windows is our specialty. We make our windows ourselves, so we have a staff of experts at our disposal. Educating consumers is part of our mission, because better-informed homeowners are able to make better-informed decisions.

### DOUBLE-HUNG WINDOW

(Interior View)



CHAMPIONWINDOW.COM

So the answer to the question, How much do I need to know about the engineering of a window? is best answered by another question: How much do you want to know? Whether you just want the basic definitions of things, or you want to learn in depth about the parts of the window, this guide has you covered.

## A glossary of window parts

Let's start with a basic glossary of window anatomy.

- **Apron.** The apron is the decorative trim or molding underneath the window's stool or sill. The apron covers the gap between the framework of the window and the wall.
- **Argon.** Argon is the clear, non-toxic gas that is found between panes of glass to provide insulation. [Learn more about argon gas.](#)
- **Balance.** A balance is the device in the center of the window that balances the weight as the sash opens and closes.
- **Casing.** The casing is the decorative part of the window between the frame and the wall.
- **Check rail.** On a double-hung window, the check rail is the part of the window where the two sashes meet in the middle.
- **Cladding.** Window cladding is exterior protective cover over a wooden frame. Cladding can be either vinyl or metal. [Learn more about window cladding.](#)
- **Frame.** The frame provides support to the entire window, holding the other pieces in place. The frame consists of the jamb, head and sill.
- **Glazing.** The panes of glass in a window (single glaze, or single pane; double glaze, or double pane; triple glaze, or triple pane). [Jump to glazing section.](#)
- **Head.** The head is the horizontal part of the window frame at the top of the window.
- **Jamb.** The jambs are the vertical parts of the window frame.

- **Jambliner.** The jambliner consists of strips that create a tight fit for the window sash.
- **Lift.** The lift makes it possible to raise a window in a single or double-hung window.
- **Mullion.** The mullion is a structural piece that fits between two distinct but closely spaced windows. Mullions can be horizontal or vertical.
- **Muntins.** Muntins are the wooden or vinyl pieces that divide panes of glass within the sash. Muntins give the window a grid-like appearance.
- **Panes.** The window panes are the glass of the window. Panes connect to the sash and, in some cases, grid-like bars called muntins. Window panes can be single, double, or triple for additional efficiency.
- **Sash.** The sash is the part of the window that holds the glass in place. On double-hung and single-hung windows, sashes slide up and down to open and close the window. On casement windows, the sashes swing open. [Learn more about window sashes.](#)
- **Sash lock.** The sash lock is a part that is found on a double or single-hung window. The sash lock prevents the sash from rattling in its frame.
- **Sill.** A window sill, also known as a window ledge or window bottom, is the shelf-like, flat piece of the window trim found at the base of the window. Window sills are important for both design and functionality of your window. [Learn more about window sills.](#)
- **Stool.** Stool is another word for the sill part of the window frame.
- **Vinyl.** Vinyl is the synthetic material used to make the majority of windows. Specifically, vinyl is comprised of extruded rigid PVC.

To see a more detailed diagram of a window or to learn more about how a window is installed, check out this piece about the [anatomy of a window.](#)



# WHAT IS WINDOW GLAZING?

## CHAMPION KEY TAKEAWAYS:

- Window glazing is the glass inside of a window, which can be single, double, or triple glaze (also known as single pane, double pane, or triple pane).
- Window glazing can also refer to the putty that holds the glass in place, or the process of installing the window glaze using the putty.
  - The more panes of glass you have, the better insulated your window is. Double glaze, or double paned windows, are the most common types of windows.



You might hear the term window glazing when reading about windows or talking to a replacement window company. Window glazing essentially means window glass.

However, it can also refer to window glazing compound, which is the putty that holds the glass in place, inside the window. And just to make things even more interesting, glazing can also refer to the process of installing the window glazing compound.

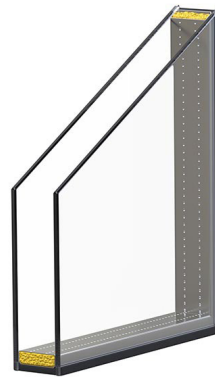
In one sense, window glazing and window glass are interchangeable terms. Except... there are multiple types of window glass. What separates these types of glass is the way they are manufactured (how they are heated and cooled). It gets slightly confusing, because when we talk about types of manufactured glass, such as tempered glass or laminated glass, we usually just refer to it as glass, not glazing.

Glazing is the broader term that refers to a pane of glass, but not usually the specific type of manufactured glass.

## Window Glazing Types

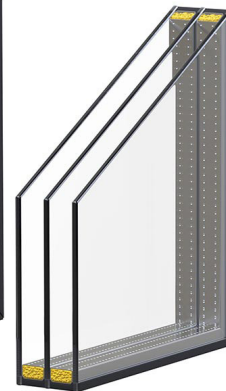
LEAST EFFICIENT

MOST EFFICIENT



**Single**

Often has storm window, screen, or combination



**Double**

Space between glass may be gas-filled  
Gas may be low-E type



**Triple**

Space between glass may be gas-filled  
Glass may be low-E type

## Window glazing basics

A single glaze (also called single pane) window refers to a window with a single sheet of glass. These are the least energy efficient windows. You might find them in older homes, but you wouldn't want single pane windows today.

A double glaze (also called double pane) window has two sheets of glass, with a space in the middle. Usually, these windows have argon gas in between the layers of glass. Argon gas is a way to help insulate the windows. It's the most common type of glazing.

A triple glaze (also called triple pane) window has three sheets of glass, with argon gas in between. It's the best insulated, most expensive, and least common type of glazing (usually only used in colder climates that need the insulation).

[Learn more about window glazing](#), including how window glazing compound works, and why it's important.

# TYPES OF WINDOW GLASS: A GLOSSARY OF GLASS

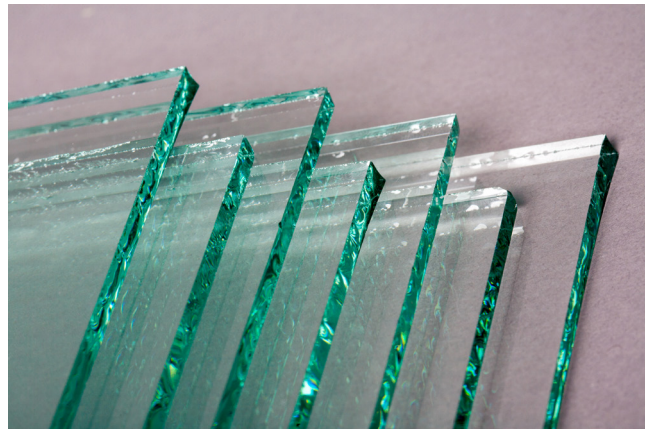
## CHAMPION KEY TAKEAWAYS:

- Window glass has different properties, depending on how it's heated and cooled during the manufacturing process.
- Float glass is the most basic type of glass. It may be made stronger with heat, and/or it may be tempered, laminated, tinted, filled with gas, or obscured.
- Some types of glass are more energy efficient, such as Low-E glass, which has a special coating that helps keep heat out in the summer and in during the winter.



Can you choose the type of glass in your windows? In fact, yes! When you buy replacement windows, there are some decisions you can make about both the amount of glass (how many panes) and the type of glass (how it's manufactured).

Recall that window glazing often refers to the panes of glass (single glaze, or single pane; double glaze, or double pane; triple glaze, or triple pane). [Learn more about window glazing.](#)



This article looks more specifically at how we make the *types of glass*, specifically how we heat and cool it. The variance in how we manufacture glass gives the different types their distinct properties. Some glass is stronger or more energy efficient than other types, for example.

### This glossary is a good place to start.

- **Float glass.** Float glass is a flat, even type of glass; it's the basic type of glass in most modern windows.
- **Annealed glass.** Annealed glass is float glass that has been slowly cooled; it's ordinary window glass, before it is coated or treated for strength or energy efficiency.

- **Heat strengthened glass.** This type of glass refers to annealed glass that has been reheated and cooled rapidly. Heat-strengthened glass is twice as strong as annealed glass.
- **Tempered glass.** Tempered glass, or safety glass, is float glass that has been heated to about 1200 degrees Fahrenheit and then rapidly cooled. It breaks into small, dull pieces.
- **Heat soak tempered glass.** Heat soak tempered glass is specially heated to create extra strong safety glass.
- **Laminated glass.** Laminated glass is a type of safety glass that does not easily break, and when it does, it typically stays in the frame.
- **Insulated glass.** Insulated glass is made from two or more pieces of glass with an air-filled space in between.
- **Gas filled glass.** Gas filled glass has a layer of gas (either argon or krypton) between the panes of glass; this gas helps insulate the windows. [Learn more about argon gas.](#)
- **Low-E glass.** Low-E glass has a coating that helps deflect UV rays, keeping heat out of the house during the summer. Low-E glass also helps keep heat in the home during the winter. [Read more about Low-E glass.](#)
- **Tinted glass.** Tinted glass helps absorb heat from the sun, so it keeps a home cooler.
- **Obscured glass.** Obscured glass is glass that has been frosted or patterned so that light is allowed to filter in, without distinct shapes being seen through the glass. It's common in bathrooms.

Learn more about how to choose [which glass is right for you](#), and how glass can help you better control your climate.



## SECTION 4: WHAT DO I NEED TO KNOW ABOUT ENERGY PERFORMANCE AND ENERGY EFFICIENCY?

### **In this section, you'll learn:**

- The difference between energy efficiency and energy ratings.
- The factors that determine energy ratings, and what the numbers mean.
- The many benefits of energy-efficient windows.



# WINDOWS AND ENERGY: A GLOSSARY OF TERMS

## CHAMPION KEY TAKEAWAYS:

- Energy efficiency refers to windows that help homeowners save money on utilities while also protecting the environment, while energy performance ratings are specific numbers determined by an independent agency.
- 4 separate factors determine energy ratings: air leakage, solar heat gain coefficient, U-Factor, and visible transmittance.
- Your window replacement sales representative should be able to explain what makes windows more energy efficient, and the benefits of energy-efficient windows.



A key reason you might be shopping for replacement windows is that your old windows aren't energy efficient. In other words, they let the heat in during the summer and the cold in during the winter. They protect against neither sun nor wind, and lack insulation.

You know that new windows will do a better job protecting against the elements, but what exactly makes them do a better job? And what determines how well they do that job?

Because we make each part of the window, and because we've been studying energy efficiency for the past seven decades, we understand exactly what factors go into creating better energy efficiency.

However, we realize that it can be confusing for consumers, because there are so many different terms. So let's review two basic concepts that are important to understand as you begin your journey towards new windows.

**Energy-efficient windows.** Energy efficient is a broad term that describes windows that help homeowners save money on utilities while also protecting the environment. [Learn more about energy efficiency.](#)

**Energy performance ratings.** These ratings are the measurement of a window's energy efficiency, as determined by the National Fenestration Rating Council (NFRC). [Learn more about energy performance ratings.](#)

## Glossary of window energy efficiency terms

Many factors go into determining how energy efficient a window is, and what kind of rating it has. There is a careful science behind the ratings, and we have several articles that go into greater depth on this science. Follow the links to learn more about any of these concepts.

- **Air leakage.** Air leakage is one of the measurements that makes up a window's energy performance rating. It's measured in cubic feet-per-minute, with lower numbers signifying less air leakage. Today's windows tend to be highly leak resistant.

- **Argon gas.** Argon is the clear, non-toxic gas that is found between panes of glass to provide insulation. [Learn more about argon gas.](#)

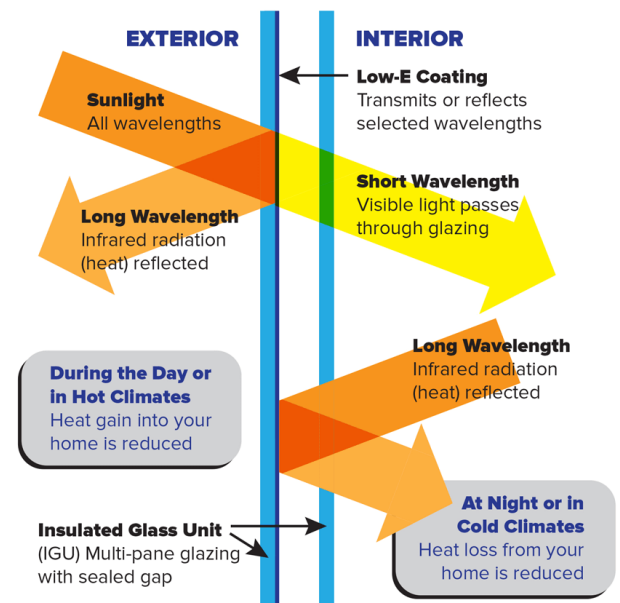



- **ENERGY STAR®.** This EPA program helps consumers buy energy-efficient products, save money, and protect the environment. The ENERGY STAR® certification comes from the **SHGC** (solar heat gain coefficient) and **U-factor**. (Other energy performance measurements covered in this glossary include **visible light transmittance** and **air leakage**, both of which are found on the **NFRC** window labels.)

- **Low-E glass.** Low-E glass has a coating that helps deflect UV rays, keeping heat out of the house during the summer. Low-E glass also helps keep heat in the home during the winter. [Read more about Low-E glass.](#)

- **National Fenestration Rating Council (NFRC).** This is a third-party nonprofit organization used by the ENERGY STAR program to rate products for energy efficiency.

### LOW-E COATING PERFORMANCE



		
<b>ENERGY PERFORMANCE RATINGS</b>		
U-Factor (U.S./I-P) <b>0.30</b>	Solar Heat Gain Coefficient <b>0.30</b>	
Ranges from 0.25 – 1.25; lower the number, the better it insulates		Ranges from 0.25 – 0.80; lower the number, the less heat is transmitted
<b>ADDITIONAL PERFORMANCE RATINGS</b>		
Visible Transmittance <b>0.51</b>	Air Leakage (U.S./I-P) <b>0.2</b>	
Ranges from 0.20 – 0.80; higher the number, the more light you see		Industry standard is <b>0.3 cf m/ft<sup>2</sup></b> ; lower the number, the less air leakage
Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole 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. <a href="http://www.nfrc.org">www.nfrc.org</a>		

- **R-Value.** R-Value measures the ability to stop heat transfer (essentially, heat escaping). Doors, windows, roofs, and walls all have R-Values. The higher the number, the better.
- **Solar heat gain coefficient (SHGC).** Another one of the measurements that makes up a window's energy performance rating, SHGC is a window's ability to block heat-producing rays. It's based on a scale of zero to 1, and as with U-factor, lower numbers are better. A low SHGC number is especially important in hot-weather climates where most home energy usage is spent on cooling.
- **U-Factor.** U-Factor is another one of the measurements that makes up a window's energy performance rating. It refers to the conduction of the flow of heat, and the scale runs from zero to 1, with lower numbers being better. Read more about [U-Factor and why it matters](#). Learn more about energy performance ratings.
- **UV rating.** UV rating is a measurement of UV protection.



- **Visible transmittance.** The final measurement that makes up a window's energy performance rating, visible transmittance tells you the amount of visible light that makes it through the window. Ideally, a window has a high visible transmittance with a low solar heat gain, so that the room gets light without becoming hot and uncomfortable.

[Learn more about energy performance ratings.](#)

<b>Table 1 – Whole Window U-factors of Sample Windows</b>			
	Aluminum frame w/o thermal break	Aluminum frame with thermal break	Wood or Vinyl Frame
Single Glass	1.30	1.07	n/a
Double Glass, ½" air space	0.81	0.62	0.48
Double glass, low-e, (E*=0.2), ½" air space	0.70	0.52	0.39
Double glass, low-e, (E*=0.1), ½" air space	0.67	0.49	0.37
Double glass, low-e, (E*=0.2), ½" space with argon	0.64	0.46	0.34
Triple glass, low-e, on two panes, ½" spaces with argon	0.53	0.36	0.23
Quadruple glass, low-e (E=.01) on two panes, ¼" spaces with krypton	n/a	n/a	0.22
*E is the emittance of the low-e coated surface.			
Source: 1993 ASHRAE Handbook: Fundamentals, (Atlanta, GA:American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Incorporated, 1993).			
Note: These are example of whole window U-factors of 3 ft x 5 ft windows. U-factors vary somewhat with window size. Ask the dealer for the specific values for the window you are looking at.			

# HOW ENERGY-EFFICIENT WINDOWS HELP YOU SAVE MONEY

## CHAMPION KEY TAKEAWAYS:

- Depending on what type of windows you are replacing with energy-efficient windows, and the part of the country you live in, you can save hundreds of dollars annually on energy bills.
- Energy-efficient windows also reduce carbon footprint, increase your property value, reduce the damage UV rays can do, and generally increase your quality of life.
  - Other factors, such as Low-E glass, can also increase the energy efficiency of your windows.



Energy-efficient windows save homeowners money because they provide better insulation. When you have windows that better insulate you from the temperature outside, your furnace works less in the winter and your air conditioning works less in the summer.

### How much can you save annually?

The National Fenestration Rating Council (NFRC) — the third-party nonprofit organization used by the ENERGY STAR® program to rate products for energy efficiency — has calculated the savings in energy bills that homeowners can expect. They analyzed the savings in 93 cities, giving figures for replacing both single pane windows and double pane windows.

For example, replacing single pane windows with energy efficient windows in Phoenix, Arizona can save you \$412/year. In temperate Oklahoma City, Oklahoma, you can save \$390. In an extreme climate like Fairbanks, Alaska, you can save \$1,000/year! (See the [NFRC's chart](#) to learn what you might save.)

### Other benefits of energy-efficient windows

Investing in energy-efficient windows provides a savings on your energy bill, but there are also other, longer-term benefits, such as:

- **Reduced carbon footprint.** Having more energy-efficient windows is one way to do

your part in helping reduce carbon emissions. There's a link between reducing carbon emissions and reducing air pollution. [A recent study](#) found that the global social cost of air pollution is about \$3 trillion/year.

- **Improved comfort throughout the year.** Energy-efficient windows mean that your home is more comfortable, because better insulated windows eliminate temperature fluctuations throughout the year.
- **Improved property value.** Did you know that you can [recoup 68% of your spend on replacement windows](#) in increased home resale value? It's money well spent!
- **Better ability to protect furnishings.** The sun's UV rays are notorious for damaging furnishings and fading curtains, rugs, and other textiles. Newer windows are better able to protect against these damaging UV rays.
- **Increased light, view, and enjoyment of your surroundings.** Energy-efficient windows have a low solar heat gain, but a high visible transmittance (the amount of light that comes in through the window). This means you get a clearer view to your outside surroundings without compromising the insulation of your windows.

Altogether, these benefits help improve your overall quality of life, and can even make selling your home easier and more profitable.

Want to learn more about energy efficiency and replacement windows? Here are some fantastic resources from Champion:

- **Low-E glass** can protect from the sun's UV rays, while preventing heat loss and reducing energy bills. [Learn more about Low-E glass.](#)
- Wondering what **energy performance ratings** are and what the scores mean? [Read more about energy performance ratings.](#)
- What makes a window more **energy efficient**? [Learn what affects energy efficiency](#) and the pros and cons of the different window styles when it comes to energy efficiency.

## SECTION 5: WHAT ARE THE MATERIAL CHOICES FOR MY WINDOWS?

### **In this section, you'll learn:**

- The different options you have for material choices for your windows, including window frames and frame colors.
- The main pros and cons of wood windows and vinyl windows (the two most popular choices).
- The key things you need to know about window locks.





# YOUR WINDOWS, YOUR WAY

## CHAMPION KEY TAKEAWAYS:

- In addition to deciding on the style of window, you can also decide what type of frame to buy and what color you want the frame to be.
  - Some material choices, such as wood, require more maintenance. It's important to have clear expectations when you choose your materials.
  - Your sales representative should be able to walk you through the pros and cons of each decision, and clearly explain the differences.



The right window can change the look of a home. It can add to the curb appeal, accent the color of the siding or the brick, and create a feeling of cohesiveness. Getting from “I need new windows now!” to “Wow, these new windows are perfect and look great!” is a journey, with many decisions inside the process.

When choosing your replacement windows, not only do you need to decide the style of window, but you also choose the material you prefer for the frames, as well as the color and the style of window lock.

Some of these decisions are purely aesthetic, such as whether you want Pebble or Colonial Blue for your window frames. Others are born more of functionality, budget, and your tolerance for maintenance.

### Questions to ask yourself about material choices

As you start to gather ideas for your replacement windows, or are preparing to talk to a sales representative, here are a few questions to ask yourself:

- Do I have strong feelings about vinyl vs. wood? If I am leaning toward one or the other, why?



- Do I have a certain color in mind? Do I have an existing color scheme (such as existing shutters or porch railings) I'm trying to match?
- Do I want the look of wood, but not the maintenance of wood?
- What's my budget? (Wood is about 25% more expensive than vinyl.)
- What are my thoughts about maintenance, such as resealing and repainting wood windows?
- Do I like the look of weathered wood, or will weathering bother me?

It may feel overwhelming, but a good sales representative will walk you through each choice, including the pros and cons of each.

# WHAT KIND OF WINDOW FRAME IS RIGHT FOR YOU?

## CHAMPION KEY TAKEAWAYS:

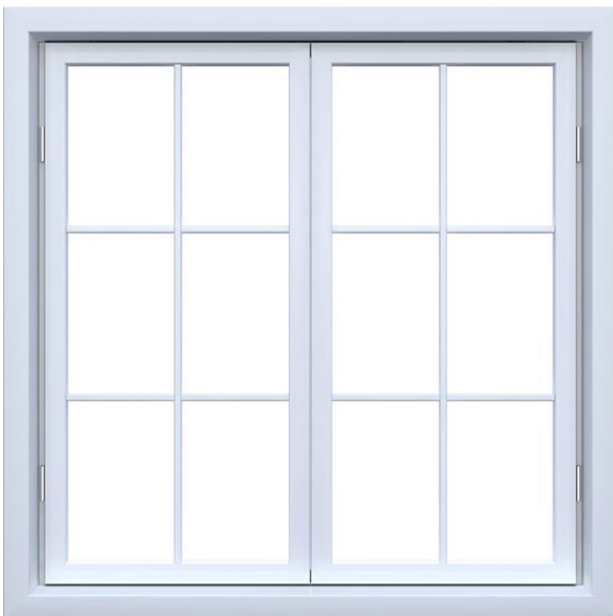
- Wood is the most traditional choice for window frames, but also requires the most maintenance.
  - Vinyl is about 25% less expensive than wood, and is less work to maintain.
  - For homeowners who want the look of wood inside, but the protection of vinyl outside, window cladding may be an option.



The frames of your replacement windows are available in several materials. The most common options include:

- Wood
- Vinyl
- Aluminum
- Combination of these materials

However, many window providers specialize in a certain frame material (Champion, for example, only makes vinyl frames). Check with your provider when making an appointment if you require a certain type of frame. This will keep you from wasting time meeting with a company that can't install what you want.



## Wood frames

Wood is the most traditional material for window frames. It's a popular choice because it's so versatile.

Hardwood is durable, and may be oiled, painted or simply left to weather for a natural finish.

Softwood is less durable (and less expensive) and requires either painting or a natural finish. It's generally more maintenance than hardwood.

**Pros of wood frames:** Natural beauty, good value, traditional choice

**Cons of wood frames:** More expensive, requires more maintenance

## Vinyl frames

Vinyl frames require less maintenance than wood frames. Vinyl is also less expensive than wood. Vinyl frames come in a range of finishes and colors and offer insulation against heat and sound.

**Pros of vinyl frames:** 25% less expensive than wood, easy to maintain, variety of color choices

**Cons of vinyl frames:** Quality can vary among manufacturers, and color sometimes fades

[Learn more about the pros and cons of wood vs. vinyl.](#)

## Aluminum frames

Aluminum frames offer a durable, low-maintenance and light-weight option. They're strong, so are often used to support large panes of glass. However, aluminum frames tend to conduct heat and may be more prone to condensation.

Other options may include fiberglass, aluminum with a wooden core, or combinations of wood and steel.

## Window cladding to increase durability of wood

We've covered the fact that wood requires regular maintenance in order to maintain



integrity and functionality. Windows with wooden frames that are not regularly stained or painted will swell in humid weather and may become warped, rotted or moldy when regularly exposed to moisture.

Homeowners who want wooden windows without the maintenance of wood turn to window cladding. Window cladding is a vinyl or metal cover that covers a wooden core. It's installed on the exterior side of the window, where it helps preserve the wood. But inside your home, the wood is exposed and visible.

Learn more about [window cladding](#) and whether or not it's right for you.

# COLOR OPTIONS FOR VINYL WINDOW FRAMES

## CHAMPION KEY TAKEAWAYS:

- While vinyl windows have traditionally been either white or tan, today's vinyl windows offer a wide range of colors.
  - Blues and earth tones are popular options, and make it easier for homeowners to create a unique look for their home.
  - For homeowners who like the look of a wood grain, but still want vinyl windows, wood grain finishes are a good option.

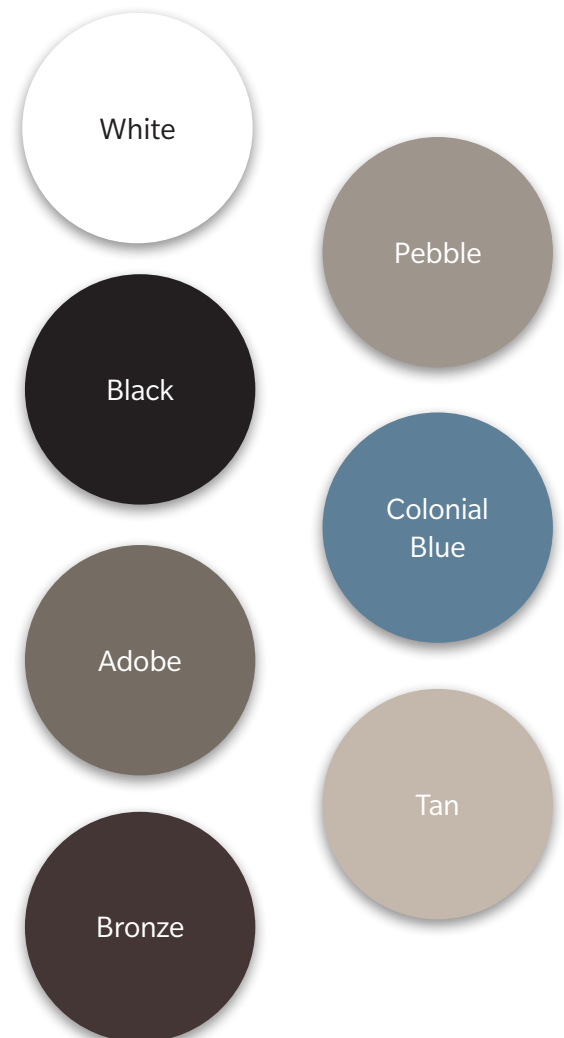


Traditionally, vinyl windows were only available in white and beige. But now, there are a vast array of colors to choose from, including reds, browns, greens, blues and grays. No matter your vision for your new windows, you can find a color that can help you bring it to life.

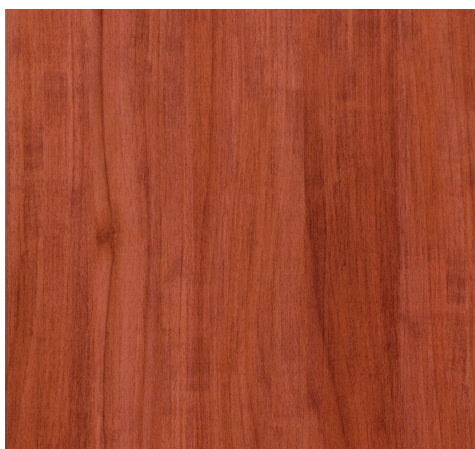
## Today's color options for vinyl windows

Available colors may vary, but some common color options for new windows include:

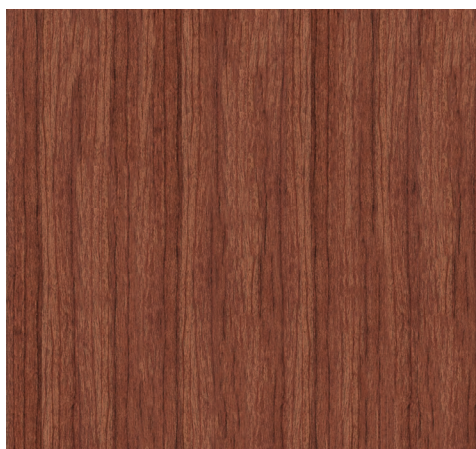
- **White.** Simple, soft and traditional, white is the most common color choice for vinyl windows.
- **Black.** Black is a great way to add contrast to a home, and works well with white or light-colored walls and siding.
- **Adobe.** This earthy gray-brown color works best when you combine it with other neutral colors like gray, brown, sage and gray-blue.
- **Bronze.** Bronze stands in sharp contrast with light colors, but you can use it in a variety of settings. Elegant and sophisticated, bronze is very modern in its deep, rich tones.



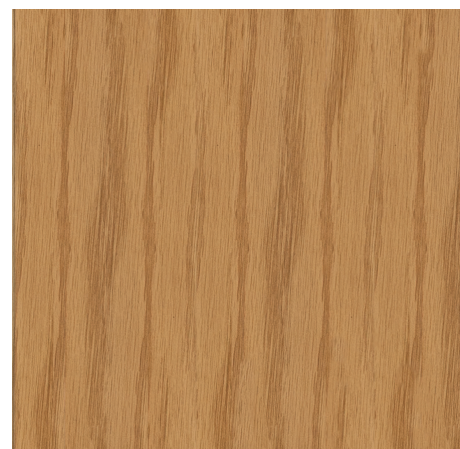
- **Pebble.** Pebble is a gentle brown color with hints of gray. You can combine this flexible shade with nearly any other color.
- **Colonial blue.** Colonial blue is the go-to color for homeowners who want a little more color and flare in their windows. Colonial blue is subtle and tasteful, for long-lasting beauty.
- **Tan.** Tan is perfect for homeowners who simply want a light color that isn't white. This flexible hue works just as well as white when combined with other colors.
- **Wood grain finishes** provide another option. Colors like Cherrywood, Dark Oak, and English Oak help you get the look of wood, but with the benefits of vinyl.



Cherrywood



Dark Oak



English Oak

Learn more about [color choices](#), and how to combine different colors for a unique look.

# 6 THINGS TO KNOW ABOUT WINDOW LOCKS

## CHAMPION KEY TAKEAWAYS:

- There are many different kinds of window locks that serve different purposes and provide various levels of security.
  - Not all locks work with all windows, so it's important to check compatibility before you buy a lock.
  - Your window sales representative should be able to answer all of your questions about locks, and compare pros and cons of each with you.



Window locks help secure your home and keep your belongings and family safe from burglars and intruders. While all windows come with some form of lock, there are many different types.



LATCH



FOLDING

## Here are six things to know about window locks for your replacement windows

1. There are many different types of locks, including latch, folding, pin, wedge, keyed, and sliding. Learn more about the [types of window locks](#).
2. All locks aren't compatible with all windows. What works on double hung may not work on casement. When shopping for locks, pay close



PIN



WEDGE



KEYED



SLIDING



attention to the type of window that is compatible with the lock.

3. Not all locks serve the same purpose. For example, child safety latches are meant to keep children safe and may not provide the same level of window security as a keyed lock, which is designed to keep intruders out of your house.
4. When comparing window locks, check the lock grades established by the American National Standard Institute (ANSI). Grade 1 are the most secure; Grade 2 are intermediate, and Grade 3 are the most basic.
5. Lock grade often corresponds to price. Keep this mind when planning your budget.
6. You can usually install after-market locks if you're concerned about improving window security.

## SECTION 6: HOW CAN I CHOOSE THE BEST REPLACEMENT WINDOW COMPANY?

### **In this section, you'll learn:**

- The most important questions to ask when choosing a window replacement company.
- Warning signs that a deal on windows is too good to be true, and can wind up costing you more money and time than you think.
- The average cost of replacement windows, and the factors that typically affect the price (including why it's so important to read the fine print).



# 5 QUESTIONS TO ASK WHEN CHOOSING A WINDOW REPLACEMENT COMPANY

## CHAMPION KEY TAKEAWAYS:

- One of the most important things to research when shopping for replacement windows is the warranty the company offers.
- Window companies that don't manufacture their own windows may not be as knowledgeable about the product, and you may also pay more for the product, because they likely mark up the price.
  - Learn as much as you can about how the company handles the installation process (such as who does the work), so there are no surprises or hidden costs.



Buying new windows is not something we do every day. Choosing a window replacement company can feel confusing. How do you compare companies? What are the most important things to look out for?

**Here are five questions homeowners often ask themselves when comparing window companies.**

### 1. What qualifiers should I look for in a window company?

- Better Business Bureau rating: a positive rating ensures good customer service and provides peace of mind when selecting a company to work with
- Awards for manufacturing, sales, or customer service: awards showcase good quality products
- Energy Star® ratings
- Years in business: this helps to determine quality of products and future customer service availability



## 2. What design qualities should I look for in a window?

- There are various aspects of replacement window design to consider when deciding which company to work with, including:
  - Frame material and construction
  - Color and style options
  - Glass quality

Be sure to test out sample window designs and see colors in person before selecting your product. Read more about [material choices](#) and why they matter.



## 3. Do they manufacture the windows?

If the company builds their own windows, you eliminate working with middlemen and receive factory direct pricing.

On the other hand, if the company purchases from a manufacturer and sells through their retail store to you, you may be investing in middleman markups. This could also lead to potential warranty issues when determining who to call if a problem occurs. Windows manufactured in the USA also eliminate additional distribution markups.



Plus, a company that manufactures its own windows, as Champion does, truly knows the product and they are experts on every aspect of the product.

## 4. Who will be installing the windows? Do they sub-contract?

It is common to find that window replacement companies utilize sub-contractors to install their product. The important factors to consider when selecting a company to work with include:

- Additional cost
- Certified contractors



- Licensed and insured
- Warranty on labor

Licensed and insured contractors provide peace of mind that your windows will be installed correctly. This also shows the company is backing up their work if anything were to go wrong. Purchasing windows where installation is included makes the process easier now, and it could be important later if you were to need to use a warranty.



### **5. Do they offer a warranty?**

When considering a new window purchase, the warranty that comes with your product is very important. New windows are a large investment for your home. If your kids accidentally kick a ball through your window, or your screen rips or a seal fails, you want to be sure your warranty has you covered.

Window warranty is one of the most important things to ask about when shopping for replacement windows. The warranty can also greatly affect the overall price and your future peace of mind.

Download our helpful [Window Buyer's Guide Checklist](#) to use when shopping for new windows for your home. Do your research to invest your money in a good product and company.

# HOW TO SPOT A DEAL THAT'S TOO GOOD TO BE TRUE

## CHAMPION KEY TAKEAWAYS:

- Prices that seem too low usually don't include labor, window removal, or warranty.
- Do your research on companies, read reviews, and prepare a list of questions to ask.
  - Beware of piecemealing your window purchase (buying windows and installation separately) because a window is advertised at a cheap price.



You want to pay a fair price for your windows. You also love the idea of getting a deal. Sales and limited time offer promotions are a great way to lure customers. But how do you know when a deal is just too good to be true?

We've got four tips to help you prevent buyer's remorse or getting taken advantage of.

### 1. Do your research before you buy.

Factors such materials, design, functionality, factory location, years in business, and warranty coverage can all affect the price of your replacement windows. Look on company websites to research their products and history, as well as looking at consumer reviews. This will help you know the questions to ask (and the answers you are looking for) during sales consultations.



### 2. Beware of the \$189 window.

These deals are usually too good to be true. The bare bones price may start at \$189 for an entry level window, but the company then adds a charge for removal and disposal of old windows, adds costs for installation, and sneaks the cost of the warranty into the fine print.

### **3. Beware of the DIY companies.**

Seeing a \$400 window at a hardware store may look enticing and inexpensive, but keep in mind that labor is not included. Do you know how to install your own windows? If not, you're looking at an additional expense — which may cost more than the materials. Also take note of the warranty on the labor, and consider whether or not you think they'll be in business many years from now if a problem occurs.

### **4. Beware of claims like, “strongest most durable window on the market.”**

While these claims sound great, there are many factors that play into the claim. Be sure to compare materials (such as type of vinyl) and beware of high prices.

For more tips on buying new windows, download our Windows Buyer's Guide.

# HOW MUCH DO REPLACEMENT WINDOWS COST?

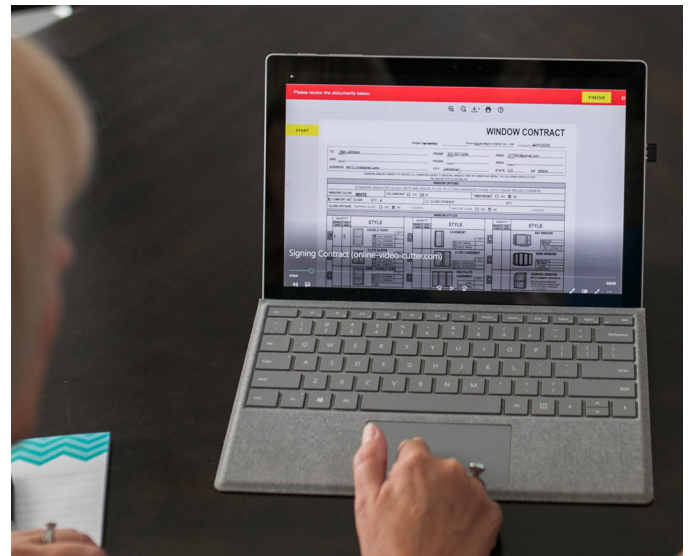
## CHAMPION KEY TAKEAWAYS:

- The average price of a vinyl replacement window is around \$1,500, but many factors can affect that price.
  - Much of the cost of new windows can be offset by increased resale value of the home and lower energy bills.
  - In-home consultations and quotes should always be free.



You likely have many questions as you start the process of shopping for replacement windows. But one may stand above the rest: How much do replacement windows cost anyway?

The industry price for a vinyl replacement window ranges from \$425 to \$2,100, with an average of about \$1,500 per window. Why is the range so large, you may ask? To understand the numbers a bit more, let's look at some of the factors that influence price.



## 6 factors that drive the cost of windows

- 1. Installation:** Always ask if installation is included in the price you see quoted (and if licensed and insured contractors are doing the work). Some window companies have a la carte pricing, which can be deceiving. (Champion always includes the price of installation in our quote.)
- 2. Warranty:** While a warranty may add to the cost of your new windows, it will save you money in the long run. A good warranty should cover everything. If something breaks — even if your kid throws a ball through the window—your window company should fix it. ([Champion's warranty](#) covers every aspect of installation, parts, labor, and materials.)



- 3. Energy-efficient glass:** Low-E glass keeps you and your home warm in the winter, cool in the summer, and allows natural light in while blocking 93% of harmful UV rays. While energy-efficient glass may be more expensive, it greatly increases comfort while saving you money over time in [lower energy bills](#). (Champion's low-E glass is called [Comfort 365® Glass](#), and features advanced technology.)
- 4. Frame insulation:** Quality frame construction matters, and you get what you pay for. That \$400 "DIY" window you see at the hardware store most likely lacks things like extra insulation at key points, weatherstripping, and airtight meeting rails.
- 5. Financing:** Many window companies offer financing. Make sure to read the fine print and avoid high-interest financing. [See Champion's financing offers](#).
- 6. Promotions:** You can often find great deals on replacement windows, such as "buy 2 windows, get 1 free" or other seasonal offers. It's worth it to look around for promotions, but remember that some promotions may be too good to be true. (Read [our article](#) about how to spot these deals.)

### **What return on investment will I get when I buy new windows?**

Replacement windows are one of the best things you can do for the value of your home. Why? Because, heat gain and heat loss through windows are responsible for 25%–30% of residential heating and cooling energy use, [according to the U.S. Department of Energy](#).

In fact, installing new windows provides one of the [highest returns on investment among home remodeling projects](#). Industry data shows that homeowners can recoup 68% of the cost of new windows in home resale value.

You can also expect to see some savings on your energy bill. Savings vary depending on several factors, including the windows you're upgrading from and the climate you live in. But homeowners in some parts of the country have saved an [average of 31% annually](#) on their energy bill after upgrading their windows. Wondering how much you can save? Our free [Energy Savings Worksheet](#) is a great place to start.

## Always get a quote

Because the prices of replacement windows do vary so much, consumers have to do their homework. One of the most important parts of the process is asking for a quote, and noting what is included, and what isn't included.

Representatives from the window company should meet with you at your home so they can assess your current windows and provide recommendations. The in-home estimate should always be free, and the company should offer flexible scheduling. If they don't, or if they try to charge for a visit, that's a warning sign of a company you don't want to partner with for such a substantial investment.

Champion always offers [free quotes](#), and schedules in-home estimates at your convenience.



## SECTION 7: WHAT SHOULD I EXPECT FROM THE WINDOW BUYING AND INSTALLATION PROCESS?

### **In this section, you'll learn:**

- The 5 steps for a successful replacement window buying process.
- The 6 things you can expect to happen the day your new windows are installed.
- How to work with a window replacement sales representative.



# SHOPPING FOR REPLACEMENT WINDOWS? HERE'S WHAT TO EXPECT

## CHAMPION KEY TAKEAWAYS:

- It's a good idea to get a few different estimates and to compare products, prices, and warranties.
- You should be able to meet with a representative from a replacement window company in your home, so they can take measurements.
- The installers should take care of everything the day of installation, including cleaning up.



Replacing the windows in your home is not an everyday thing. In fact, there's a good chance that it's something you've never done before.

As you start the process of shopping for replacement windows, you may be wondering what to expect.

Because we work with homeowners every day, meeting with them in our showrooms and in their homes, we've pulled together a step-by-step guide for what to expect during your project.

### 1. Schedule an estimate.

The first step in the window replacement process is to schedule an estimate with a window replacement company. You may want to meet with several different companies to find the best fit for your home, your budget, and your priorities. Look for companies that offer flexible scheduling and free in-home estimates.



### 2. Meet with a representative at your home.

Next, you will meet with representatives from the window companies that you've selected. The representatives should meet with you at your home so they can assess your current windows and provide recommendations. The representatives should go over the different products, designs, financing, and warranty



they offer. The appointment should be comprehensive, so don't be afraid to ask any questions or address any concerns you may have.

### **3. Get exact measurements.**

Now it's time to get your window's exact measurements. While it's easy to take your own measurements, your window replacement company should always send someone to your home to get detailed and final measurements before building your windows. This will ensure a precise fit and eliminate any issues that could arise from ill-fitting windows.



### **4. It's time for installation.**

You've chosen your windows, they've been built to your specifications, and now it's time to install them! Your window replacement company should handle all facets of installation, including protecting your home from dirt and debris during installation, and cleaning up the work areas completely. The installers should also do a final walkthrough with you and make sure everything is perfect.



### **5. Windows should be guaranteed.**

Your windows are now installed and should be performing as expected, but as we all know, accidents happen. Stray baseballs, harsh weather, and other unforeseen circumstances can all affect the performance of your windows. A good window replacement company should stand behind their windows and their service, and always make it right if something goes wrong.

Now that you know what you can expect from a quality window replacement company, you can feel confident moving forward in the process, and in knowing that you're making a great investment that will increase the value of your home, keep you comfortable, and save you money on your energy bills.

Keep this free buyer's guide PDF handy to reference during your window replacement project.



# WHAT TO EXPECT DURING YOUR WINDOW INSTALLATION

## CHAMPION KEY TAKEAWAYS:

- Your installation crew should follow a distinct set of steps, and should make sure you understand each step of the process.
- The crew should handle all elements of preparation, demolition, installation, sealing, clean up, and hauling off the old windows.
  - Someone from the crew should inspect the work and make sure all windows operate properly. They should also make sure you understand how to operate and clean.



So you've chosen your window replacement company, picked out your window styles and designs, and now you're ready for installation. Here's what you can expect on the day of your window installation.

### 1. Greeting and walkthrough

On the day of your install, your installation crew should greet you at your home and do a walkthrough of the home before beginning the work. The crew leader should also explain the full installation process to you and answer any questions you may have about the project. Remember to secure any pets, and keep them away from the windows.



### 2. Preparing the area

The installers will then prepare the areas where windows are being installed. They will put down drop cloths to protect your floors from dirt and debris and will ask you to remove any window treatments or fragile items near the window.



### 3. Preparing and cleaning the opening

The next step is removing the old windows. Your installation crew should remove the windows completely, and then inspect the opening for any damage and repair that damage as needed. It's important that any rotting wood or decaying frames are either removed or repaired before installation. Otherwise, your windows may not operate properly in the future.



### 4. Insulating and sealing the frame

Now, the crew will install the new windows. They should ensure that the new windows are a perfect fit for the opening and are performing properly. They should tightly seal the area around the window and replace the trim as well.



### 5. Clean up

Your installation crew should handle every aspect of clean-up. They should haul away and dispose of your old windows and any leftover debris. The crew should also completely clean up all work areas and ensure that nothing is left behind in the home. It should be as if the crew was never even there at all.

### 6. Verifying the work

The last step of the window installation process is a final walkthrough with your crew leader. They should walk through your home and do a final inspection to make sure all windows fit perfectly and are operating correctly. They should also show you how your new windows function, show you how to clean them, and answer any questions you may have.



Any reputable window replacement company will follow all of the installation guidelines that we've laid out above. If they skip any steps or compromise on any part of the process, it could be a sign that you may have issues with your windows down the road.

Keep this free buyer's guide PDF handy to help you throughout your window replacement project.

Or, learn more about [how to care for your new windows](#).

We hope this guide has helped you become more informed about replacement windows and the buying process!

## **Are you ready to meet with a reputable window company?**

**Schedule a free in-home estimate appointment with a Champion expert today!  
Mornings, afternoon and evening appointments available in person or virtually.**

[Schedule Here](#)

# APPENDIX

# WINDOWS BUYERS' GUIDE CHECKLIST

A useful guide for comparing multiple window companies



## WINDOWS YOU'RE LOOKING FOR



**Double-Hung**

Qty \_\_\_\_\_



**Casement**

Qty \_\_\_\_\_



**Bay**

Qty \_\_\_\_\_

**Other**

\_\_\_\_\_

\_\_\_\_\_



**Slider**

Qty \_\_\_\_\_



**Picture/Shaped**

Qty \_\_\_\_\_




**Bow**

Qty \_\_\_\_\_

Qty \_\_\_\_\_

## WINDOW COMPANY COMPARISONS

Company Name				
<b>Window Company Qualifiers</b>				
BBB A+ Rating	<input checked="" type="checkbox"/>			
Top 500 Qualified Remodeler	<input checked="" type="checkbox"/>			
Top 100 Window & Door Manufacturer	<input checked="" type="checkbox"/>			
Energy Star <sup>®</sup> Rated <sup>4</sup>	<input checked="" type="checkbox"/>			
AAMA Gold Label	<input checked="" type="checkbox"/>			
Over 70 years experience	<input checked="" type="checkbox"/>			
<b>Window Design</b>				
Reinforced vinyl frames	<input checked="" type="checkbox"/>			
Deep pocket sill	<input checked="" type="checkbox"/>			
Multiple color options	<input checked="" type="checkbox"/>			
Wood styling options	<input checked="" type="checkbox"/>			
Comfort 365 <sup>®</sup> Glass	<input checked="" type="checkbox"/>			
Blocks 93% of UV rays	<input checked="" type="checkbox"/>			
<b>Window Manufacturing</b>				
Builds their own windows	<input checked="" type="checkbox"/>			
Made in the USA	<input checked="" type="checkbox"/>			
Factory direct pricing	<input checked="" type="checkbox"/>			
<b>Window Installation</b>				
No additional cost	<input checked="" type="checkbox"/>			
Certified	<input checked="" type="checkbox"/>			
Insured	<input checked="" type="checkbox"/>			
<b>Window Guarantee</b>				
Glass	Lifetime <sup>†</sup>			
Frame	Lifetime <sup>†</sup>			
Installation	Lifetime <sup>†</sup>			
Transferable	Yes, 1 time			

**Champion Windows • 888-230-4177 • GetChampion.com**

<sup>†</sup>The Champion Limited Lifetime warranty applies to Comfort 365 Windows as long as the original purchaser owns the home. <sup>4</sup>Champion Windows placed in homes at altitudes of 8,000 feet or greater do not qualify for Energy Star<sup>®</sup> manufacturing specifications or requirements. ©Champion Opco LLC, 2024 Version 010524



## Champion Windows Meets New Energy Star® 7.0 Requirements with Enhanced Comfort 365 Windows®

The Energy Star® program is a government-backed initiative that helps consumers save money and energy by promoting energy-efficient products. In order to earn Energy Star® certification, products must meet strict energy efficiency standards.

The Energy Star® program recently updated its standards for residential windows and doors. The new [Energy Star® 7.0 requirements](#) are more stringent than the previous requirements, and they are designed to help consumers save even more energy and money on their utility bills.

Champion Windows is proud to announce that its enhanced Comfort 365 Windows® meet the new Energy Star® 7.0 requirements. This means that Champion customers can be confident that their new windows will help them save energy and money for years to come.

The new Energy Star® 7.0 requirements for windows vary depending on the climate zone in which the windows are installed. However, all Energy Star® 7.0 windows must meet the following minimum requirements:

- Energy Efficiency Requirements for Windows
- Climate Zone U-Factor SHGC
- Northern  $\leq 0.22 \geq 0.17$
- North-Central  $\leq 0.25 \leq 0.40$
- South-Central  $\leq 0.28 \leq 0.23$
- Southern  $\leq 0.32 \leq 0.23$

Energy Star® windows offer a number of benefits, including:

- Energy savings: Energy Star® windows can help you save energy and money on your utility bills.
- Improved comfort: Energy Star® windows can help keep your home cooler in the summer and warmer in the winter, making it more comfortable for you and your family.
- Reduced environmental impact: Energy Star® windows can help reduce your carbon footprint and protect the environment.

Champion Comfort 365 Windows® meet the new Energy Star® 7.0 requirements through a number of features, including:

- Triple-pane glass: Triple-pane glass is more energy-efficient than single- or double-pane glass in certain climates. It helps to keep your home cooler in the summer and warmer in the winter.
- Low-emissivity (low-E) coating: Low-E coating on the glass helps to reflect heat away from your home in the summer and trap heat inside your home in the winter.

- Argon gas filling: Argon gas is a non-toxic, inert gas that is used to fill the space between the panes of glass in double and triple-pane windows. Argon gas helps to improve the insulation value of the window.
- Warm-edge spacer system: The warm-edge spacer system helps to reduce heat transfer through the edges of the window.

If you are looking for replacement windows for your home, be sure to choose Champion Comfort 365 Windows®. They meet the new Energy Star® 7.0 requirements and offer a number of benefits, including energy savings, improved comfort, and a reduced environmental impact.

### **Additional information about the new Energy Star® 7.0 requirements:**

The new Energy Star® 7.0 requirements are designed to help consumers save even more energy and money on their utility bills. The new requirements are more stringent than the previous requirements, and they reflect the latest advances in window technology.

The new Energy Star® 7.0 requirements are also designed to be more flexible. This means that manufacturers have more flexibility in how they design their windows to meet the requirements. This can lead to more innovation and a wider range of energy-efficient windows for consumers to choose from.

The new Energy Star® 7.0 requirements took effect on October 23, 2023. All new windows manufactured on or after this date must meet the new requirements in order to be eligible for Energy Star® certification.

How to choose the right Energy Star® windows for your home:

When choosing Energy Star® windows for your home, it is important to consider a number of factors, including:

- Climate zone: The climate zone in which you live will determine the type of Energy Star® windows that are right for your home.
- Window type: There are a variety of different types of Energy Star® windows available, including fixed windows, casement windows, double-hung windows, and sliding windows.
- Window features: In addition to energy efficiency, you may also want to consider other window features, such as noise reduction, security, and ease of maintenance.

It is also important to choose a reputable window manufacturer and installer. Champion Windows is a trusted manufacturer and installer of Energy Star® windows. We offer a wide range of energy-efficient windows to choose from, and we can help you choose the right windows.

<sup>1</sup> Energy Star® 7.0 qualifications met with triple pane in the Northern and North Central Energy Star zones