

Best Energy-Efficient Windows for Hot Climates

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The best energy efficient windows make it possible for you to maintain the ideal temperature in your home. You can reduce your energy consumption while increasing the cool comfort level of your living space during even the hottest desert days. The most energy efficient windows allow sunlight to deliver its beautiful natural light while substantially blocking heat. This means more comfort for less energy use impacting the environment and less electricity cost for air conditioning.

Here are some tips to help you in selecting the type of energy efficient windows that will perform best for your home in hot climates.

The best windows for hot climates are ones that are energy efficient. Call The Energy Shield Window & Door Company, LLC, Phoenix AZ.

[Get FREE Estimate!](#)

Choosing the Right Window Frames

The window frame type you choose will significantly affect the level of energy efficiency you can expect from your new replacement windows in our extreme southwestern temperatures. Frames for energy-efficient windows can be constructed of one of various highly durable and appealing materials, including wood, aluminum, or vinyl.

Wood and vinyl window frames offer the highest performance in energy efficiency. Wood is higher in cost than vinyl. Vinyl frames have become increasingly popular due to their affordability and excellent energy efficiency.

Glass for Energy-Efficient Windows

The performance of the glass is obviously fundamental to the quality of a window designed for energy efficiency. These three efficiency factors determine the effectiveness of the glass panels in energy saving windows:

- *Visible Transmission (VT)* — Amount of solar *light* being transferred through the glass
- *Solar Heat Gain Coefficient (SHGC)* — Amount of solar *heat* being *transferred* through the glass
- *U-Value* — Amount of heat *emanating* through the glass by convection, conduction, and radiation.

High-VT glass permits a lot of natural light to enter the home throughout the day, which saves energy use by reducing the need for electrical lighting during daylight hours. The glass's VT value recommended by energy efficiency experts is about 60% to 80%.

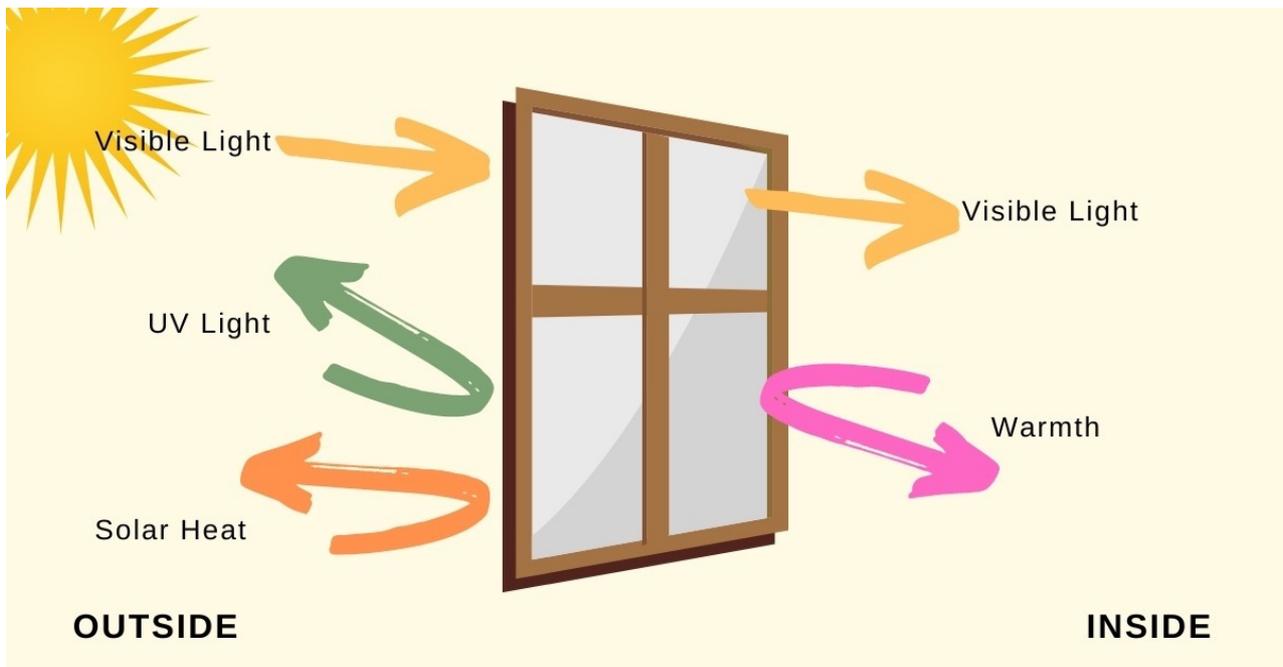
For the hottest climate regions, such as the Arizona desert, SHGC should ideally be as low as can be achieved with energy-efficient windows and doors. Window glass providing low SHGC allows only a smaller amount of heat from the sun to enter the home through windows, thereby saving on HVAC costs for air conditioning. An SHGC of under 0.4 is optimum for homes in hot climates as in the Sonoran Desert, and glass with a low U value is suggested for window applications in *all* climate types, to optimize energy efficiency.

How Multi-Pane Glass Increases Energy Efficiency

Today's triple-pane or double-pane windows are the most highly recommended for maximum energy efficiency in virtually all climate zones. The insular space between the window panes saves energy and helps reduce electricity costs.

For significantly enhanced efficiency, argon, krypton, and other gases are utilized between glass panes as insulators. Such gases are denser than air, so they provide more effective insulation.

Argon is the most popular gas for filling double-pane energy-efficient windows, because it is a highly efficient insulator and costs considerably less than krypton gas. Krypton is used in narrower spaces between triple glass panes. It is a more scarce gas and much higher in price than argon.



Why Low-E Window Glass is the Best

Low emissive, known as Low-E glass is used to increase the energy efficiency of windows and doors. This glass is coated with a layer of metallic oxide material, which helps prevent the transfer of heat between the glass panes. Low emissive glass minimizes heat penetrating through windows in the southwest region's best energy-efficient windows for the desert climate. So, when choosing windows, be aware of their NFRC rating.

Energy Shield Window & Door Company, Phoenix AZ

We have been manufacturing energy-efficient windows and doors in Arizona since 1996. Our Earthwise and Energy Star® rated products are all designed especially for premium performance here in our southwest desert climate. Our beautiful energy-efficient windows and doors are designed with state-of-the-art heat reflection, noise reduction, and dust control features. Our replacement window installation specialists are all factory trained and hold our industry's professional certifications. We offer frequent special offers.

For more information, or for a free bid on replacement windows, call us at Energy Shield Window & Door Company, LLC, Phoenix AZ at (623) 349-7120 anytime, or browse through our online showroom.
