

Choosing Energy Efficient Windows

Having many windows in your home can give you lots of natural light during the day, but it can also create a strain on your home's HVAC system if the windows are not energy efficient.

Different frame materials and glass options can change how energy efficient your windows are and potentially lower your energy costs. Next we will discuss different glass and frame options and what they mean.

RATING GLASS

Low U-value or U-factor: When you're shopping for windows, they will likely have a sticker displaying the U factor. U factors measure how well the window insulates the home from outside temperatures. Having a lower U factor is ideal, especially on windows that face north or south.

Solar heat gain coefficient: In addition to a U factor, most stores will display a window's solar heat gain coefficient. This number indicates how much thermal energy from the sun passes through the glass and into the home. This number will fall between zero and one with a lower number being ideal and indicating that less heat travels through the windows.

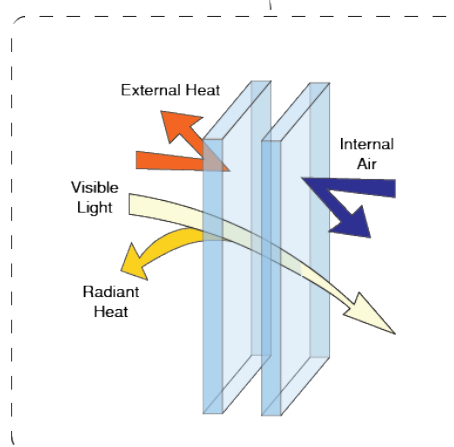
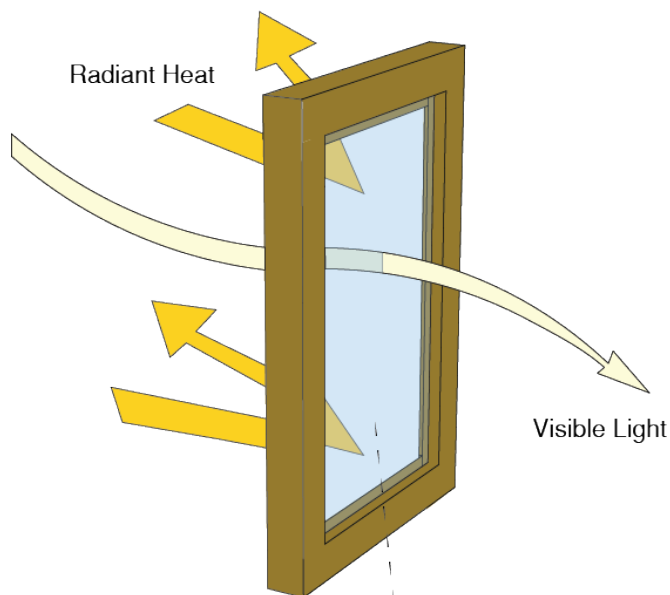
FRAME OPTIONS

Wooden frames are moderately energy-efficient. However, even though they are often a more expensive option, wooden window frames often experience moisture problems and are prone to rotting or warping if not properly maintained.

Aluminum or other metal frames are a very common option since they are inexpensive and low maintenance, but they aren't very energy efficient as the metal can bring excess heat into the home.

Vinyl frames are one of the cheapest window frame options available, and they are very energy-efficient when installed correctly. Insulated vinyl windows have hollow cavities which are filled with insulation to keep temperatures comfortable in your home. However, vinyl expands and contracts overtime and may be damaged by extreme weather and temperatures.

Energy Efficient Glass And Solar Heat



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Fiberglass framed windows are a lower end option than wood or vinyl framed windows but are better performing. Fiberglass frames have air cavities filled with insulation to keep heat or cold air out. This option is often the most affordable and energy-efficient.

Wooden window frames are prone to rotting or warping if not properly maintained. Stock photo



OTHER CONSIDERATIONS

There are also many DIY projects that can make your windows more efficient. For example, sealing gaps with caulk or weatherstripping can reduce drafts and ensure your HVAC is not overworking itself.

Like any home appliance or feature, different window and frame types have different maintenance needs. In order to extend the life of your windows, make sure you are following proper maintenance instructions issued by the manufacturer.



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