



# Low-E Insulating Glass Unit

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## Insulated Glass Unit (IGU)

When multiple glass panes or "lites" are assembled into units, they are commonly referred to as insulated glass, double glazing, or Insulating Glass Units (IGU).

The glass panes are separated by a "spacer". A spacer is the component, or piece, used in window manufacturing that separates the two panes of glass in an insulating glass (IG) system, and seals the airspace between them.

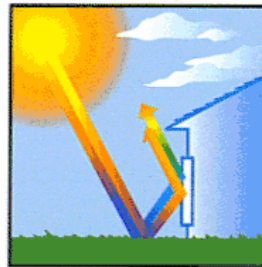
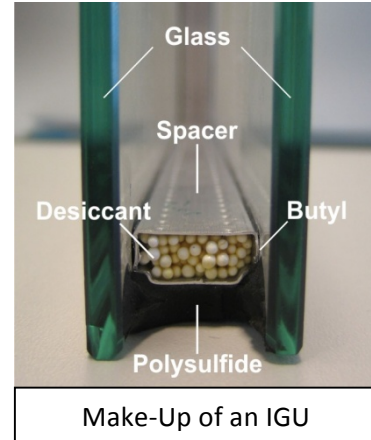
## Low-E

Low E glass coatings work by reflecting or absorbing IR light (heat energy). The thickness of the Low E coating and the position in the window (#2 or #3 surface) dictate how the window will perform.

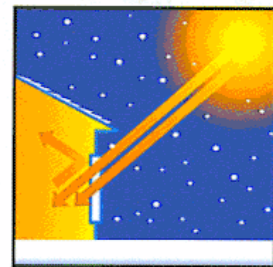
When installed on the #3 surface of an insulated glass unit (IG), the Low E coating will reflect IR heat from inside the room to help reduce the energy loss during the cold months, thereby reducing heating costs.

Among other things, sunlight contains visible light, UV light, and infrared (IR) light. Visible light enables us to see things. Infrared light is basically heat. Low E glass has the ability to allow visible light to pass while blocking certain amounts of UV light and IR light.

The infrared light in sunlight is powerful. When it strikes an object it heats it up. These objects can be your tile floors, furniture, sidewalks, patio furniture, etc. As these objects cool off, they emit a low powered form of IR light. Low E glass reflects this form of energy. In the summer this helps to keep your house cooler, as the heat from objects outside is kept outside. In the winter, all objects in your home are heated (by either the sun or your furnace). This heat is also bounced back into your house by the low E glass.



Low-E filters long-wave radiation from the sun. This reduces solar heat gain from the sun in the summer, keeping your home cooler.



Low-E takes on a new duty in winter months. It lets warm solar rays into your home, while blocking the heat in your home from getting out.



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