Consider each of the glazing types in the table below. Fill in the missing columns.

|  |  |  |  |
| --- | --- | --- | --- |
| Glazing Feature | Description | Important features | Issues or concerns |
| Gas fill | Space between panes is filled with an inert gas | Gas fill reduces heat loss | Gas fills increase the cost of windows, and may dissipate over time. |
| Heat Absorbing Tints | Contain special tints that change the color of the glass | Reduces the SHGC, VT, and glare | * The tint doesn't lower a window's U-factor. * Predominantly in commercial buildings * Warm climates where minimizing solar heat gain is a priority |
| Insulation | Windows with two or more panes of glass. The glass panes are spaced apart and hermetically sealed, leaving an insulating air space. | Primarily lowers the U-factor, but it also lowers the SHGC. VT is only slightly diminished. | Increase the costs |
| Low-E | Low-E coatings on glazing or glass control heat transfer through windows with insulated glazing. | Reduces energy loss. Lowers the **U-factor**, and reduces window’s **VT**. | * Typically cost about 10% to 15% more than regular windows, but they reduce energy loss by as much as 30% to 50%. * Cold climates where reducing heat loss is a priority. * Warm climates where minimizing solar heat gain is a priority. |
| Reflective Coating | Reflective coatings on window glazing or glass reduce the transmission of solar radiation, blocking more light than heat. | Reduces a window's VT and glare, but they also reduce a window's SHGC. | Reflective window glazing is commonly used in hot climates to control solar heat gain. |
| Spectrally selective Low-E | A special type of low-e coating is spectrally selective, filtering out 40% to 70% of the heat normally transmitted through insulated window glass or glazing while allowing the full amount of light transmission. | Spectrally selective coatings are optically designed to reflect particular wavelengths, but remain transparent to others. They help create a window with a low U-factor and SHGC but a high VT. Can be applied on various types of tinted glass to produce "customized" glazing systems capable of either increasing or decreasing solar gains according to the aesthetic and climatic effects desired. | * Increase the costs * Warm climates where minimizing solar heat gain is a priority |