



- **Visible Light:** the portion of the solar spectrum containing visible light we can see, from roughly 380nm up to 780nm, contains all the colors of the spectrum.
 - **Transmitted:** the amount of visible light that passes through the glass, into the building. This is how light or dark the film is.
 - **Reflected Exterior:** the amount of visible light that is reflected off the exterior surface of the window. This is seen when standing outside the building. A higher reflectance value means the window looks more like a mirror from the outside.
 - **Reflected Interior:** the amount of visible light that is reflected off the interior surface of the window. This is seen when standing inside the building looking out. A higher reflectance value means the window looks more like a mirror from the inside.
 - **Glare Reduction:** the reduction in visible light transmitted compared to clear unfilmed glass.
- **Total Solar Energy:** all the energy in the solar spectrum that reaches us on the earth's surface. This includes UVA and UVB, Visible light, and Infrared energy up to roughly 2500nm.
 - **Transmitted:** the amount of total solar energy that passes through the glass, into the building.
 - **Reflected:** the amount of total solar energy that is reflected off of the glass and directed back outside. This energy does not come into the building.
 - **Absorbed:** the amount of total solar energy that is absorbed into the glass. This heats up the glass, making it hotter to the touch, and re-radiates a small amount of heat back into the room. The majority of absorbed energy is kept out of the room though.
- **Shading Coefficient:** the ratio of heat passing through a filmed window to heat passing through clear unfilmed glass. A lower number means better heat rejection.
- **Solar Heat Gain Coefficient:** similar to the shading coefficient, except this value also takes into account energy that is re-radiated back into the room from the glass heating up due to increased absorption. Again, a lower number means better heat rejection.
- **U Factor:** heat transfer due to temperature differences outside and inside. Represents the amount of heat passing through 1 sq ft of glass in 1 hour for every 1 degree temperature difference between the outside and inside. A lower value means less heat passes through, and this is generally of interest for keeping heat inside the building in cold climates.
- **Ultraviolet Light Rejection:** the amount of UV energy blocked by the film, either by reflecting or absorbing it. This energy does not enter the building.
- **Emissivity:** the ability of the surface to reflect infrared energy. For window film, this means how much heat it will re-radiate back into a room. Low E glass and films have low emissivities, which means they reflect a lot of heat back into the room, which is the desired effect in cold climates.
- **Light-to-Solar-Gain Ratio (LSG):** provides a gauge of the relative efficiency of different film types in transmitting daylight while blocking heat gains. It is determined by the ratio between visible light transmittance and the solar heat gain coefficient. The higher the number, the more light transmitted without adding excessive amounts of heat.
- **Total Solar Energy Rejection:** the total amount of solar energy that is kept out of the building. Although not accurate, this is commonly referred to as heat rejection.
- **Infrared Rejection:** the amount of infrared (IR) energy that is blocked by the film, either by reflecting or absorbing. This value is for the whole IR region of the solar spectrum, roughly 780nm up to 2500nm.
- **Infrared Energy Rejection (IRER):** is a measurement of infrared rejection over the IR range of 780-2500 nm. IRER takes into account that a portion of absorbed IR energy will be re-radiated into a car or building. Similar to Total Solar Energy Rejection, but only involves the solar infrared range.
- **Tensile Strength:** the value of a 1" x 1" square of film being pulled apart in the same manner as the film break strength test. It is generally calculated up from the break strength and reported in pounds per square inch, (PSI).
- **Break Strength:** the actual load or force at which fracture occurs measured in pounds per inch (width). Break strength is a function of tensile strength.
- **Peel Strength:** the force necessary to remove a coated material adhered to a prescribed surface from that surface measured in pounds per inch width.