

Solar Inserts for Polycarbonate Roofs

Glossary of Technical Terms

Emissivity

The ability of a surface to absorb heat and to reflect it.

The lower the emissivity, the less heat is absorbed and the more heat is reflected back into the room.

The lower the emissivity = the higher the ability to retain the rooms heat.

Shading Coefficient - B value

The ratio of the solar heat gain through a given glazing system, compared to the solar heat gain (under the same conditions) through clear, sun shaded double glazed window glass.

Shading coefficient defines the sun control capability of the glazing system.

The lower the shading coefficient the more efficient the glazing system is at sun/solar control.

U Value

The U Value is a measure of the rate of heat loss from a building (measured in Watts) from one side of glass to the other side, per 1 square metre of glass.

The lower the U Value the better the heat loss reduction.

Visible Light Transmission (VLT)

The percent of total visible light to be passed through a glazing system.

Visible Light Reflected

The percent of total visible light to be reflected by a glazing system.

Ultra Violet Block

The percent of UV radiation to be passed through a glazing system. The percent of UV radiation to be passed through a glazing system.

Total Solar Energy (TSE)

Is 100% of solar energy.

Total Solar Energy Reflection (TSER)

The percent of total solar energy to be reflected by a glazing system.

Total Solar Energy Transmitted (TSET)

The percent of Total solar energy to be passed through a glazing system.

Total Solar Energy Absorbed (Solar Absorption)

The percent of total solar energy to be absorbed by a glazing system.

Solar absorbency is that portion of TSE which is neither transmitted nor reflected.

Since total solar transmittance and reflectance are measured directly we use the following equation to work it out.

Total Solar Energy Absorbed = 100% - (TSER-TSET)

Total Solar Energy Rejection

The percent of solar energy which is rejected by a glazing system.

$$\text{Solar Absorption} + \text{Total Solar Energy Reflection (TSER)} = \text{Total Solar Energy Rejection}$$