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SYRACUSE GLASS COMPANY

www.syracuseglass.com

Our Commitment Shines Through

Flat Glass Products - Tempering
Insulating - Beveling - Edgework
All-Glass Doors - Shower Enclosures
StoreFront and Curtain Wall Systems
Aluminum Entrances

ENERGY TERMS

Visible Light Transmittance:
The percentage of visible light (380 - 780 nm) that is transmitted through the glass.

Solar Transmittance:
The percentage of ultraviolet, visible and near infrared energy (300 - 3000 nm) that is transmitted through the glass.

Visible Light Reflectance:
The percentage of light that is reflected from the glass surface(s).

Solar Reflectance:
The percentage of solar energy that is reflected from the glass surface(s).

NFRC U-Value:
A measure of heat gain or heat loss through glass due to the differences between indoor and outdoor temperatures. These are center pane values based on NFRC standard winter nighttime and summer daytime conditions.
U-values are given in BTU/(hr*ft2*°F) for the English system. Metric
U-values are given in W/(m2*°K)*.

**Note: To convert from English to metric, multiply the English U-value by 5.6783.NFRC winter nighttime U-values are based on an outdoor temperature of0°F (-17.8°C), an indoor temperature of 70°F (21°C) and a 12.3 mph (19.8 km/h) outdoor air velocity.*

*NFRC summer daytime U-values are based on an outdoor temperature of 89°F(32°C), an indoor temperature of 75°F (24°C), a 6.2 mph (10.1 km/h) outdoor air velocity and a solar intensity of 248 BTU/(hr*ft2*°F) (782 W/m2).*

R-Value:
Thermal resistance is expressed in ft2*hr*°F/BTU. It is the reciprocal of U-value. The higher the R-value, the less heat is transmitted through the glazing material.

Shading Coefficient
Shading coefficient is the ratio of solar heat gain through a specific type of glass that is relative to the solar heat gain through a 1/8" (3 mm) ply of clear glass under identical conditions (see Figure 8). As the shading coefficient number decreases, heat gain is reduced, which means a better performing product.

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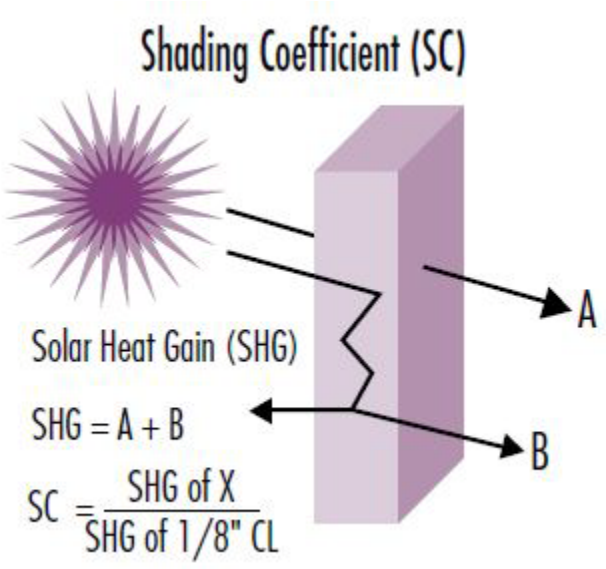

(figure 8)

Relative Heat Gain (RHG:)
The amount of heat gained through glass taking into consideration U-value and shading coefficient.
Using the NFRC standard, relative heat gain is calculated as follows:
English System:
RHG = Summer U-value x 14°F + shading coefficient x 200.
Metric System:
RHG = Summer U-value x 7.8°C + shading coefficient x 630.

Solar Heat Gain Coefficient (SHGC):
The portion of directly transmitted and absorbed solar energy that enters into the buildings interior. The higher the SHGC, the higher the heat gain.

Light to Solar Gain Ratio (LSG):
The ratio is equal to the Visible Light Transmittance divided by the Solar Heat Gain Coefficient.
The Department of Energy's Federal Technology Alert publication of the Federal Energy Management Program (FEMP) views an LSG of 1.25 or greater to be Green Glazing/Spectrally Selective Glazing.