

## DecoSHADE™ Performance Data Table

	Transmittance			Reflectance		U-Value		Relative Heat Gain	Shading Coeff.	SHGC	LSG
	Visible	UV	Solar	Vis-Out	Solar	Winter	Summer				
9/16" DecoSHADE SD50 Laminated Glass <sup>(1)</sup>	43%	<1%	38%	24%	20%	.98	.89	130	0.59	0.51	0.84
DecoSHADE SD50 IG 1/4" Sungate 400 <sup>(2)</sup>	37%	<1%	26%	26%	22%	.34	.30	85	0.40	0.35	1.05
DecoSHADE SD50 IG 1/4" SN68 <sup>(3)</sup>	32%	<1%	16%	25%	27%	.29	.28	63	0.30	0.26	1.26
DecoSHADE SD50 IG 1/4" SB60 <sup>(4)</sup>	34%	<1%	16%	25%	26%	.29	.23	62	0.30	0.26	1.31

- (1) Values based on testing by DSET Laboratories, a Division of Atlas Material Testing Technology LLC. Laminated glass consisting of two lites 1/4" low iron glass and DecoSHADE™ SD 50% coverage
- (2) Center pane values based on LBNL Window v7.1.3.0 Glazing System Thermal and Optical Properties with DecoSHADE™ SD50 DSET test data. Insulated Glass unit consisting of 9/16" DecoSHADE™ SD50 low-iron laminated glass on the outside surface, 5/8" air space, PPG Sungate 400 on 6mm clear glass #6 surface
- (3) Center pane values based on LBNL Window v7.1.3.0 Glazing System Thermal and Optical Properties with DecoSHADE™ SD50 DSET test data. Insulated Glass unit consisting of 9/16" DecoSHADE™ SD50 low-iron laminated glass on the outside surface, 1/2" air space, Guardian SN68 on 6mm clear glass #5 surface
- (4) Center pane values based on LBNL Window v7.1.3.0 Glazing System Thermal and Optical Properties with DecoSHADE™ SD50 DSET test data. Insulated Glass unit consisting of 9/16" DecoSHADE™ SD50 low-iron laminated glass on the outside surface, 5/8" air space, PPG Solarban 60 on 6mm clear glass #5 surface

### ENERGY TERMS

#### Visible Light Transmittance

The percentage of visible light (380-760 nm) that is transmitted through the glass

#### Ultraviolet Light Transmittance

The percentage of ultraviolet light (330-380 nm) that is transmitted through the glass. UV light is considered the energy that accounts for the majority of fading of materials and furnishings

#### Solar Transmittance

The percentage of ultraviolet, visible and near infrared energy (300-2500nm) that is transmitted through the glass

#### Visible Light Reflectance

The percentage of light that is reflected from the glass surface

#### Solar Reflectance

The percentage of solar energy that is reflected from the glass surface

#### NFRC U-Value

A measure of heat gain or loss through glass due to the differences between indoor and outdoor temperatures. The lower the U-Value, the less heat is transmitted through the glass. These are center pane values based on NFRC standard winter nighttime and summer daytime conditions.

U-values are given in the English system, BTU/(hr\*ft<sup>2</sup>\*°F). Metric U-values are given in W/(m<sup>2</sup>\*°K). 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 of 0°F (-18°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\*ft<sup>2</sup>\*F) (782 W/m<sup>2</sup>).

#### Relative Heat Gain (RHG)

The amount of heat gained through glass taking into consideration U-value and shading coefficient. Expressed in terms of BTU/hr/ft<sup>2</sup>. Using the NFRC standard, relative heat gain is calculated according to the English system as follows:

$$RHG = \text{Summer U-value} * 14^{\circ}\text{F} + \text{shading coefficient} * 200.$$

#### Shading Coefficient

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. As the shading coefficient number decreases, heat gain is reduced, which means a better performing product.

#### Solar Heat Gain Coefficient (SHGC)

The portion of directly transmitted and absorbed solar energy that enters into the building's interior. The higher the SHGC, the higher the heat gain.

#### Light to Solar Gain Ratio (LSG)

The ratio of 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.