

# OKAFLEX™ Flexible Light Control Insulated Glass Packages

## Product Information

Variable radiations, flexible use of space – OKAFLEX lets you precisely control daylight. The heat-protective glazing with integrated louvers offers as much sun protection as required and as much daylight as possible. Of course, you can also alter the anti-glare and privacy screening – by lifting, lowering and rotating the louvers for wall types, and by rotating the louvers for roof types.

- SHGC value up to 8% can be realized (closed louvers), dependent on the louver color, louver setting and location of the sun (refer to table for the physical properties data)
- $U_g$  value best case  $1.1W/(m^2K = 0.19 BTU)$  (closed louvers)
- Manual or electrical operation
- Control with flexible group size

## Louvers

- Width: 15 mm (nom. 5/8”), different colors (see table with technical light properties of the surfaces)
- Thickness: 23 mm (29/32”) can be fitted as concave or convex (dependent on the focus of the requirements concerning anti-glare light directing function)

## Ladder cord

- Measurement: 12 x 18.5 mm (~ 1/2” x 3/4”) UV resistant, comprised of 100% high-strength, meshed polyester thread, thermally fixed, double ridged
- Color: White with white louvers, gray with silver louvers

## Hoist cord

- Diameter = 1.0 mm (nom. 3/64”) UV resistant, consisting of 100% high-strength, bound polyester thread
- Color: White with white louvers, gray with silver louvers

## Drive

A precision motor is built into the top rail with a 4-stage planetary gear train. The motor is driven with 24 volts DC voltage and has a rated output of 6 Watts. The control is carried out by means of a dual core cable (cable cross-section in accordance with the cable lengths and loss of output).

## Physical properties data

The following tables show the g values for two types of louvers depending on their angles of adjustment and the height of the sun.

### Louver color 2901 (silver)

Angle of incidence	Horizontal louver		Louver in 45° position		Louver closed	
	Tv	SHGC	Tv	SHGC	Tv	SHGC
0°	0.74	0.58	0.28	0.33	0.05	0.12
30°	0.42	0.44	0.11	0.19	0.03	0.08
60°	0.16	0.28	0.03	0.08	0.02	0.08

## Louver color 2902 (white)

Angle of incidence	Horizontal louver		Louver in 45° position		Louver closed	
	T <sub>v</sub>	SHGC	T <sub>v</sub>	SHGC	T <sub>v</sub>	SHGC
0°	0.74	0.58	0.24	0.26	0.05	0.11
30°	0.41	0.38	0.11	0.17	0.03	0.09
60°	0.15	0.22	0.06	0.12	0.02	0.08

The specified total solar energy transmittance values apply for white 15 mm louvers, with a soft thermal control coating on surface # 3. The U<sub>g</sub> value reaches 1.1W/(m²K), depending on the louver position, cavity and filler gas.

### Legend and related values:

	Unit	Standard	Technical term
<b>U</b>	W/(m²K)	DIN EN 673/674	Thermal transmittance, (ΔT=10°C) –(BTU/hr/f²/F°)
<b>SHGC</b>	%	DIN EN 410	Total solar energy transmittance or solar heat gain coefficient
<b>T<sub>v</sub></b>	%	DIN EN 410	Light transmission (direct/hemispheric)
<b>R<sub>w</sub></b>	dB	DIN EN 20140	Sound reduction coefficient
<b>F<sub>c</sub></b>	%	DIN 4108	Reduction factor of a solar control system, F <sub>c</sub> SHGC/SHGC
<b>SC</b>	%	GANA Manual	Shading coefficient, SC=SHGC/0.86

The above data is approximate. It is based on measurements of recognized test institutes and calculations derived from these measurements.

At this time, not all suppliers have adapted their key data to the currently applicable regulations. When making comparisons, please note the respective manufacturers' notes. On the basis of the old standards, SHGC as well as shading coefficient values are each 1-3% lower.

Lower U-values can only be achieved in combination with thermal control gases (Kr, Ar). If thermal control gases are used, a gastight perimeter seal is required. The seal must be protected from solar radiation by means of covering profiles or a black edge screen print and is normally not compatible with jointing silicone.

### Degree of reflection for the louvers

Louver color	rdh, vis	rdiffus, vis	rdd, vis	rdh, sol	rdiffus, sol	rdd, sol
2901: silver	0.59	0.44	0.15	0.61	0.44	0.17
2902: white	0.81	0.77	0.04	0.70	0.66	0.04
2903: matt white	0.74	0.72	0.02	0.64	0.62	0.02
2906: concave side, silver, convex side retro-reflective (RAL 7030)	0.66	0.46	0.20	0.67	0.46	0.21

### Legend and associated dimensions

rdh, vis	The direct hemispherical degree of light reflection
rdiffus, vis	Diffused degree of light reflection
rdd, vis	The direct-direct degree of light reflection or the aligned-aligned degree of light reflection
rdh, sol	The direct-hemispherical degree of radiation reflection or the direct hemispherical degree of solar reflection
rdiffus, sol	The diffused degree of radiation reflection
rdd, sol	The direct-direct degree of radiation reflection or the aligned-aligned degree of solar reflection

## Dimensions and installation

Type	SZR (mm)	Min. width (mm)	Max. width (mm)	Min height (mm)	Max. height (mm)	Comments/restrictions
Façade	27/29 1 1/16" 1 1/8"	500 19 11/16"	3,000 118 1/8"	250 9 27/32"	3,000 118 1/8"	Min. surface: 0.13 m <sup>2</sup> Max. surface: 7.50 m <sup>2</sup> (80 3/4") Height: > 1500 mm required Width: > 750 mm
Roof	27 1 1/16"	500 19 11/16"	2,000 78 3/4"	400 15 3/4"	1,500 59 1/16"	Min. surface: 0.20 m <sup>2</sup> Max. surface: 2.25 m <sup>2</sup> Also 0° when horizontal Only turning the louvers

### Types of glass and coatings

- TVG, if required also ESG or VSG
- Thermal protection coating or sun protection coating
- Coatings change the light, radiation and thermal technical behavior of the insulated glass structure. The properties of the louvers can always also be seen.

### Control

- Optional 1-channel radio remote control or 8-channel radio remote control
- Optional group control, bus connection
- Optional sun monitor control module and light sensor

### Operation

- Lift and lower the louvers by pressing the button in the respective direction.
- Turn the louvers by lightly tapping the button in the desired direction.
- The button is marked with directional arrows.
- When reaching the upper and lower end position, the limit switch that is built into the top rail automatically switches off the drive.

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