

## **OKASOLAR W Insulating glass with optically regulated sun protection for verticle façades**

### **Outer pane**

Thermally toughened glass according to static and/or construction requirements, with a minimum of ..... mm, with heat and/or combined sun and heat protection layer. Edge screen printing or edge enameling on position 2 are required to cover the technically necessitated expansion gap between the edge profile and the distance holder.

### **Cavity I**

Total of 22 mm with hermetic insulating glass edge seal according to German Standard DIN EN 1279. The steel louvres are three-dimensionally roll formed and have a highly reflective, UV resistant Feran coating. They must be carried out in a width of 17 mm, and a distance of 17 mm. The louvres have an angle of at an angle of 50°, 55° or 60°. The horizontal clear vision must be at least 38%, 41% or 45% depending on the inclination specified. The coefficient of expansion of the louvre material may not exceed a maximum of 13.10-6/K, the thermal conductivity a maximum of 50 W/(mK). The insert must be free of volatile materials such as oil, grease, etc. This must be tested and verified by a Fogging Test according to German Standard DIN EN 1279-4. Reinforced by the three-dimensional roll form, the louvres must be installed up to a glass width of 1 meter without an intermediate supporting profile. The lateral mounting must be covered by a U-profile installed directly on the edge of the insulating glass. The lateral U-profiles mounting the louvres and any supporting profiles necessary are to be installed in the color of aluminum. Supporting profiles must allow for a tension-free thermal expansion of the louvres.

The louvres must have a combined light-guiding and sun protection function. The louvres must have several bevels with different directions and functions. The bevels create a selectivity angle with which a direction-selective g-value is achieved. At high solar angles the light is reflected to the outside, at low solar angles the sun is partially deflected towards the ceiling and into the depths of the room creating indirect daylight illumination.

The type and execution of the louvres shall be discussed with the manufacturer for each individual local irradiation condition, direction of the façade and use of the room behind it. The shading effect must be mathematically and graphically verified by a solar diagram which takes local solar altitudes into consideration. The corresponding documentation must be presented before approval.

### **Middle pane**

Thermally toughened glass according to static and/or constructive requirements, with a minimum of ..... mm.

## Cavity II

8 – 12 mm with hermetic insulating glass edge seal according to German Standard DIN EN 1279 and gas filling depending on the Ug-value requirement.

## Inner pane

Laminated safety glass of TVG (annealed glass). Glass thickness according to static and/or constructive requirements, with at least .....mm, with heat protection layer.

## Technical data as required:

The structural values are to be verified by appropriate calculations and/or measurements.

Ug-value .....W/m<sup>2</sup>K  
 Type 50/17, 55/17 or 60/17 ...../17

## Angle-dependent g-value

Incident angle $\gamma$	-30°	0°	30°	60°
Total energy transmission g ca.				

## Light and radiation transmission

Incident angle $\gamma$	-60°	-30°	-15°	0°	15°	30°	45°	60°
Light transmission ca.								
Radiation transmission. ca.								

## Deflected proportion to inside up

(with regard to the total light transmitted)

Incident angle		0°	10°	15°
<b>deflected proportion*</b>	0%	12%	73%	78%

\*deflected proportion with reference to interior top of the total light transmitted

