

OKASOLAR 3D Insulating glass with fixed optically regulated sun protection for roofs

Outer pane

Thermally toughened glass according to static and/or construction requirements, with a minimum of mm. 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 24 mm with hermetic insulating glass edge seal with integrated sun protection grid according to German Standard DIN EN 1279. The grid consist of one main louvre made of aluminium and cross louvres made of plastic. The assembled grid has a homogeneous appearance with no visible impacts. The geometry of the grid is given in the following table.

Type OKASOLAR	Angle of louvre [°]	Distance of louvre [mm]	Max. Through- vision %	Through-vision	
				from a [°]	till b [°]
3D 44/23	44	23	85	3	-66

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.

The roll formed main louvre, which passes from east to west, consists of an anodized aluminium strip. The strip is coated with high purity silver PVD, is reflection-intensifying and UV-resistant.

The particular three dimensional cross louvres are coated with pure aluminium and PVD and reflect incoming sunlight from the early morning and late night hours. As a result, a large proportion of the diffused daylight comes from the north through the area of transmission into the exposed interior.

The type and execution of the louvres shall be discussed with the manufacturer for each individual local irradiation condition, orientation of the roof area, roof inclination 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.

TENDER SPECIFICATION



Middle pane

Float glass or thermally toughened glass according to static and/or constructive requirements, with atleastmm, with heat protection layer.

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 atleast mm, with heat protection layer.

Technical data as required:

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

Ug-valueW/(m²K)

Light transmission and angle dependent g-value (TSET):

Type OKASOLAR	T _v direct %			T _v diffuse %	g-value (TSET) %		
	Lock-out area	Area of transmission	Vertical		Lock-out area	Average lock- out area	Vertical
3D 44/23							