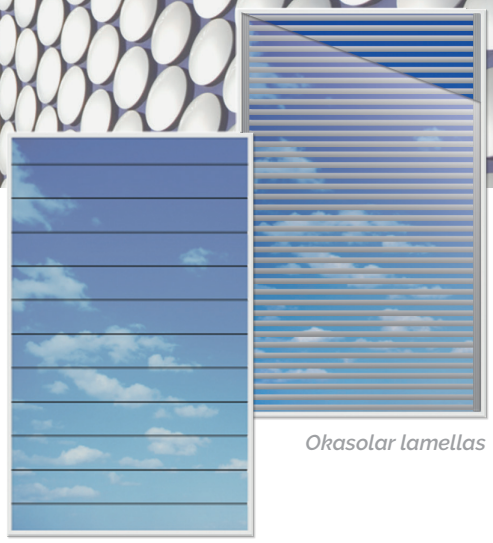
Comparison
Okasolar and MicroShade®



Okasolar lamellas

MicroShade®

A good indoor climate is important for people to thrive. Employees who thrive are more productive, engaged, happy, loyal and satisfied. In order to obtain a good indoor climate the facades are critical as they will determine the indoor temperature, daylight and view out.

Below the two facade solutions MicroShade® and Okasolar F and W are compared on the most important parameters for the experienced indoor climate; g-value, beam shading, daylight through the façade, colour rendering and view out.

Thermal indoor climate	g-value*	√	(√)
	Beam Shading	√	√
Daylight and view out	Daylight*	√	(X)
	Colour Rendering	√	√
	View out*	√	(√)
Predictability	Wind Stability	√	√
	Control	**No control**	No control
	Overall Predictability	**100 %**	100 %

*See graph on next page

√: Very good (√): Good (X): Poor X: Very poor

Okasolar products and MicroShade® both have the benefit of being selective shading products; direct irradiation from high solar angles are blocked, while diffuse light can pass through. MicroShade® has a better thermal performance than Okasolar, as MicroShade® can provide a lower g-value (see graph on next page). Okasolar reduces the daylight more than MicroShade®, as Okasolar block almost all light from high angles (see graph on next page). The view out is substantially reduced with Okasolar as the cut-off angle for upward viewing direction is only 28° compared to 65° for MicroShade®. Both solutions have no control and are thus 100 % predictable.

Assumptions

Types of glazing

2-layer glazing with low energy glazing both for MicroShade® and Okalux Okasolar

Okasolar lamellas

Non-movable internal lamellas. Dimensions of lamellas: Okasolar F and FO: 9.5 mm vertical spacing between lamellas, 0° tilt, 16 mm pane spacing. Okasolar W: 17 mm vertical spacing, 55° tilt, 22 mm pane spacing

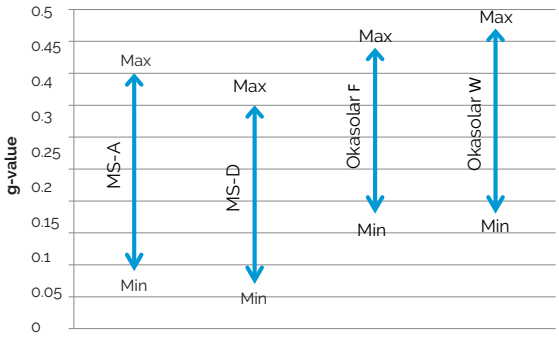
References

Okalux "Infotext" documents for the specific products, www.okalux.de.
MicroShade® datasheets, www. microshade.dk

Effevtive g-value

MicroShade® and Okasolar solar shading products are very effective in blocking solar energy, but MicroShade® provides a larger span between minimum and maximum g-value and a lower g-value at high solar angles.

Figure 2: g-value span between 60 degree (min) and 0 degree (max) irradiation angle.



View out

Okasolar façade products has a view cut-off angle at 28° (Okasolar F), compared to 67-68° for MicroShade® MS-A and MS-D. This means that the view will be fully blocked when looking upwards at angles higher than 28° from horizontal, in the case of Okasolar F and W.

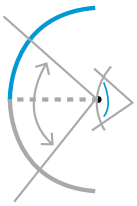
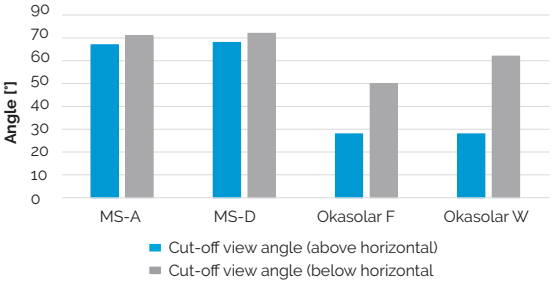


Figure 3: View-out cut-off angles up- and downwards



Daylight through facade

Okasolar and MicroShade® products both have light transmittances that depend on the solar irradiation angle. Compared to Okasolar F and W, MicroShade® MS-D and MS-A has better light transmittance at higher solar angles, but similar light transmittance at low angles.

Figure 4: Transmitted light as a function of solar irradiation angle