ORAGUARD® HELIOSILVER 20 EXT.

Reflective Solar Protection Film

Short description

ORAGUARD® HelioSilver 20 ext is an aluminum-sputtered, highly reflective solar control film designed for exterior installation. By reflecting a very high percentage of solar radiation, it minimizes heat gain inside buildings and significantly reduces the heating of the glass. The mirror-like finish also provides effective glare protection and privacy during the day. Ideal for glass surfaces exposed to intense sunlight in office, residential, and commercial buildings.

Front material

PET film, 0.0625 mm

Liner

PET film, single-side silicone coated, 0 mm

Adhesive

Solvent-polyacrylate, permanent, Transparent, 0.007 mm

Technical properties

RESISTANCE

Durability	10 Year(s)	Outdoor use, provided it is properly installed, maintained, and used | Vertical application
	6 Year(s)	Outdoor use, provided it is properly installed, maintained, and used | Horizontal Application
Shelf Life	3 Year(s)	In original packaging, at 20 °C and 50% relative humidity
Temperature resistance	Minimum temperature -40 °C Maximum temperature 85 °C	

ADHESIVE PROPERTIES

PROCESSING

Suitable substrate	Glass	
Application temperature	Minimum temperature 10 °C Maximum temperature 30 °C	
Proposed application technology	Wet application	

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Technical specifications of the solar control film in accordance with EN 410:2011[1]

ORAGUARD® HelioSilver 20 EXT	Single glazing 4 mm clear glass		Double glazing 4/12/4 mm clear glass	
	No Film	With HelioSilver 20 EXT	No Film	With HelioSilver 20 EXT
Visible Light Transmitted [%]	91	26	83	24
Visible Light Reflected interior [%]	8	45	15	–
Visible Light Reflected exterior [%]	8	48	15	48
UV Block (280-380 nm) [%]	28	99	42	99
Total Solar Energy Reflected[2] [%]	8	50	14	50
Total Solar Energy Transmitted[2] [%]	87	19	77	17
Total Solar Energy Absorbed[2] [%]	5	31	10	33
Glare Reduction [%]	0	0.71	0	0.71
Shading Coefficient [-]	1.00	0.3	1.00	0.22
Infrared energy rejection (IRER)[4] (780-2500 nm) [%]	13	–	22	–
G-Value (SHGC)[5] [-]	0.88	0.26	0.80	0.19
Total Solar Energy Rejection (TSER)[2,8] [%]	12	74	20	81
Color Rendering Index[7] [-]	99	88	99	87

[1] Performance values were determined based on measurements conducted at Fraunhofer ISE, accredited ccording to ISO 17025:2015. Optical properties were calculated according to EN 410:2011 using the Optics 6.0 software from LBNL. All values are based on application to 1 mm clear glass and may be subject to

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minor variations due to standard manufacturing tolerances.
[2] Calculated from transmission, reflection and absorption
[3] Korrigierte Emissivität gemäß EN 12898:2019
[4] Nach ISO 9050:2003
[5] Solar Heat Gain Coefficient
[7] In Transmission gemäß EN 410:2011
[8] TSER (Total Solar Energy Rejection), basierend auf dem g-Wert gemäß EN 410:2011

PRODUCT NOTE

The surface to be covered must be free of dust, grease, or other contaminants that could impair the material's adhesive strength. Freshly painted surfaces must have been allowed to dry or fully cure for at least three weeks.

IMPORTANT NOTES

All ORAGUARD® products undergo rigorous quality control throughout the entire manufacturing process. We ensure that the products are delivered in standard commercial quality and free from manufacturing defects. The traceability of our products in accordance with ISO 9001 is ensured by the roll number. The information published regarding ORAGUARD® products is based on research results that the company considers reliable but does not constitute a guarantee. Due to the wide range of possible applications for ORAGUARD® products and the ongoing development of new applications, it is the buyer's responsibility to thoroughly verify the suitability and performance of the product for the intended use. Furthermore, the application instructions issued by ORAFOL must be followed. The buyer assumes all risks arising from the use of these products. All information is subject to change without notice.

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