ORAGUARD® HELIOSHIELD 75 EXTERIOR

Spectrally Selective Solar Protection Film

Short description

ORAGUARD® HelioShield enables efficient retrofitting of glass surfaces with state-of-the-art solar control technology. These innovative premium films combine high light transmission with excellent infrared reflection, significantly reducing summer heat buildup in buildings. The result: a more pleasant indoor climate in non-air-conditioned rooms and a significant reduction in cooling costs in air-conditioned buildings – without substantially altering the original appearance of the glass. ORAGUARD® HelioShield 75 Ext. is intended for outdoor use.

Front material

PET film, 0.075 mm

Liner

PET film, single-side silicone coated

Adhesive

Solvent-polyacrylate, permanent, Transparent, 0.007 mm

Technical properties

RESISTANCE

Durability	with vertical outdoor exposure, normal Central European climate	
	10 Year(s)	(exterior), with proper installation, maintenance, and use;
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® HelioShield 75 EXT	Single glazing 4 mm clear glass		Double glazing 4/12/4 mm clear glass	
	No Film	With HelioShield 75 EXT	No Film	With HelioShield 75 EXT
Visible Light Transmitted [%]	91	72	83	65
Visible Light Reflected interior [%]	8	8	–	–
Visible Light Reflected exterior [%]	8	8	–	–
UV Block (280-380 nm) [%]	28	99.9	42	99.9
Total Solar Energy Reflected[2] [%]	8	33	14	35
Total Solar Energy Transmitted[2] [%]	87	42	77	37
Total Solar Energy Absorbed[2] [%]	5	25	10	27
Glare Reduction [%]	–	21	–	21
Shading Coefficient [-]	1.00	0.54	1.00	0.52
Emissivity[3] [-]	0.84	0.67	0.84	0.67
Infrared energy rejection (IRER)[4] (780-2500 nm) [%]	13	80	22	84
G-Value (SHGC)[5] [-]	0.88	0.48	0.80	0.41
Total Solar Energy Rejection (TSER)[2,8] [%]	12	53	20	59
Color Rendering Index[7] [-]	99	98	99	97

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[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 minor variations due to standard manufacturing tolerances.
[2] Calculated from transmission, reflection and absorption
[3] Measured with an emissometer
[4] Infrared energy rejection (780–2500 nm)
[5] g-value according to EN 410 / SHGC according to NFRC 200
[7] Ra according to EN 410
[8] TSER = 1 – g-value

PRODUCT NOTE

Surfaces to which the material will be applied must be thoroughly cleaned and free from dust, grease or any other contamination that could affect the adhesion of the material. Freshly lacquered or painted surfaces should be allowed to dry for at least three weeks and to completely cure. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. We recommend wet application of the film.

IMPORTANT NOTES

All ORAGUARD® products are subject to careful quality control during the entire manufacturing process. It is guaranteed that the products are delivered in merchantable quality and free of manufacturing defects. The traceability of our goods in accordance with ISO 9001 is ensured by means of the roll number. The information published on ORAGUARD® products is based on research results which the company believes to be reliable, but which do not constitute a guarantee. Due to the wide variety of uses of ORAGUARD® products and the continuing development of new applications, it is the responsibility of the purchaser to carefully evaluate the suitability and performance of the product for its intended use. Furthermore, the processing instructions issued by ORAFOL must be observed. The purchaser bears all risks arising from the use of these products. All information is subject to change without notice.

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