ORAGUARD® HELIOSHIELD 80 EXTERIOR

Spectrally Selective Solar Protection Film

Short description

ORAGUARD® HelioShield enables the 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 and significantly reduce heat build-up inside buildings during the summer. The result: a more comfortable indoor climate in uncooled rooms and a significant reduction in cooling costs in air-conditioned buildings – without significantly altering the original appearance of the glass. ORAGUARD® HelioShield 80 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	When exposed to vertical outdoor weathering, standard Central European climate	
	8 Year(s)	Outdoor use, subject to correct 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

ORAFOL Europe GmbH
Orafolstrasse 1
D-16515 Oranienburg
Germany

Tel: +49 (0)3301 864-0
functional.films@orafol.de
www.orafol.com

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Proposed application technology	Wet application

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

ORAGUARD® HelioShield 80 EXT	Single glazing 4 mm clear glass		Double glazing 4/12/4 mm clear glass	
	No Film	With HelioShield 80 EXT	No Film	With HelioShield 80 EXT
Visible Light Transmitted [%]	91	78	83	70
Visible Light Reflected interior [%]	8	10	15	17
Visible Light Reflected exterior [%]	8	12	15	17
UV Block (280-380 nm) [%]	28	99.8	42	99.9
Total Solar Energy Reflected[2] [%]	8	30	14	32
Total Solar Energy Transmitted[2] [%]	87	52	77	47
Total Solar Energy Absorbed[2] [%]	5	19	10	21
Glare Reduction [%]	0	15	0	15
Shading Coefficient [-]	1.00	0.64	1.00	0.63
Emissivity[3] [-]	0.84	0.66	0.84	0.66
Infrared energy rejection (IRER)[4] (780-2500 nm) [%]	13	64	22	68
G-Value (SHGC)[5] [-]	0.88	0.56	0.80	0.50
Total Solar Energy Rejection (TSER)[2,8] [%]	12	44	20	50

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Color Rendering Index[7] [-]	99	97	99	97

[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] Korrigierte Emissivität gemäß EN 12898:2019
[4] Basierend auf g(NIR) nach EN 410:2011
[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 adhesive strength of the material. New paintwork must have been left to dry or fully cure for at least three weeks.

IMPORTANT NOTES

All ORAGUARD® products are subject to rigorous quality control throughout the entire manufacturing process. We guarantee that the products are delivered in standard commercial quality and free from manufacturing defects. The traceability of our goods in accordance with ISO 9001 is ensured by the roll number. The information published regarding ORAGUARD® products is based on research findings which 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 purpose. 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.

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