SolarSkin™ Product Spec Sheet

*Product is part of the **Wex**Window™ family of products*

Product Description

SolarSkin is a snap-on window insulation panel that reduces solar heat gain (SHG) and increases thermal insulation at the window. ***SolarSkin*** provides thermal insulation by optimizing the insulation gap between the existing window and ***SolarSkin***. Its solar control properties reduce solar heat gain and glare to reduce A/C loads and improve building occupant comfort. ***SolarSkins*** keep the heat inside during the winter and outside during summer. ***SolarSkins*** are individually manufactured to fit each unique window.

SolarSkins are mounted to the inside windowpane. No tools. No construction. No disruption.

Product Classification

SolarSkin meets CLASS A criteria required for interior wall and ceiling finish materials under the International Building Code® (IBC), NFPA 1-1: Life Safety Code® (NFPA 1010), and NFPA 5000: Building Construction and Safety Code® (NFPA 5000). This determination is based on ASTM E84 test results performed by Intertek on ***PolarSkin***.[1]

SolarSkin Product Specs

	Visible Light Transmittance[2]	R-Value[3,4]	% SHG Reduction (Single Pane/Double Pane)[5]	Emissivity[6]
SK20 ***SolarSkin***	0.22	1.31	60% / 38%	0.84
SK50 ***SolarSkin***	0.45	1.35	48% / 35%	0.69
SK70 ***SolarSkin***	0.66	1.31	47% / 34%	0.77

SolarSkin + Existing Window Performance

	U-Factor[6] (Wood/Vinyl Frame)	U-Factor[6] (Aluminum Frame/Thermally Broken)	SHGC[7]
SK20 *SolarSkin*			
High-Profile ***SolarSkins*** + Existing Single-Pane[8] Window	0.45	0.62	0.32
High-Profile ***SolarSkins*** + Existing Double-Pane[9] Window	0.33	0.40	0.25
Low-Profile ***SolarSkins*** + Existing Double-Pane[9] Window	0.34	0.40	0.25
SK50 *SolarSkin*			
High-Profile ***SolarSkins*** + Existing Single-Pane[8] Window	0.45	0.62	0.42
High-Profile ***SolarSkins*** + Existing Double-Pane[9] Window	0.33	0.39	0.26
Low-Profile ***SolarSkins*** + Existing Double-Pane[9] Window	0.33	0.40	0.26
SK70 *SolarSkin*			
High-Profile ***SolarSkins*** + Existing Single-Pane[8] Window	0.45	0.62	0.42
High-Profile ***SolarSkins*** + Existing Double-Pane[9] Window	0.33	0.40	0.26
Low-Profile ***SolarSkins*** + Existing Double-Pane[9] Window	0.34	0.40	0.26
NYC Energy Code for Windows[10]	≤0.40		≤0.36

NYC Energy Code

Contact WexEnergy to learn if a ***SolarSkin*** retrofit can bring your building's existing, double-pane windows up to current NYC energy code.

Window Operability

SolarSkin maintains emergency egress through the window. Windows and window treatments will open and close, just as they did before ***SolarSkins*** were installed.

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Custom Fit - Easy to Measure and Install

SolarSkins are manufactured to fit each window size. ***SolarSkins*** are dimensioned and mounted to the glass pane. Available in 1/16" increments. Fits rectangular windows: double-hung, sliders, casement, awning and fixed.

Minimum window-pane dimension (height or width): 15"
Maximum window-pane dimensions: 48" x 60". Larger dimensions coming in 2023. Contact WexEnergy for more information.

Materials

SolarSkins are made with polyester-based, GREENGUARD® Certified and Cradle-to-Cradle™ Certified materials. One of our key suppliers announced plans for advance recycling technology that will allow polyester-based materials to be recycled into virgin material at end-of-cycle.

Effective Useful Life

SolarSkins will last 30+ years in IECC Climate Zones 1-9.

Footnotes

[1] Test Report No. M1880.01-121-24, issued April 7, 2021, ASTM E84 Test Report for PolarSkin issued by Intertek.
[2] Visible Light Transmittance (VLT) measures the amount of visible light which comes through the product. A higher value, from 0 to 100%, means the product allows more daylight through. SolarSkin SK50 results per Intertek testing (ASTM E972 E1084). SK50 VLT result was indistinguishable from the window film manufacturer's specification. SK20 and SK70 VLT values are based on the respective window film manufacturer product specification.
[3] R-Value measures the resistance to heat loss through the product in ft^2-°F-hr/BTU.
[4] The High-Profile SolarSkin provides a 5/8" air gap providing an R-Value of 1.35 as measured by NFRC 102-2020 test by Intertek. SK20 and SK70 are inferred based on window film specification Winter U-Factors relative to SK50 material. The Low-Profile SolarSkin provides a 3/8" air gap with 0.1 lower R-Value than the High-Profile SolarSkin R-Values shown in this table.
[5] % Solar Heat Gain Reduction is the percentage of solar radiation reduction at center of glass, including radiation directly transmitted and radiation absorbed and subsequently released into the building interior. Values in this table are for the SolarSkin product alone. NFRC 201-2020 test results for SK50 on a double pane clear window had "% Solar Heat Gain Reduction" that was indistinguishable from manufacturer product specification for the window film used in SK50. SK20 and SK70 "% Solar Heat Gain Reduction" values are based on the respective window film manufacturer product specification.
[6] U-Factor measures the heat loss through SolarSkin in BTU/ft^2-°F-hr. NFRC 102-2020 measurements for SolarSkin SK50 were performed by Intertek, a global certification laboratory. SK20 and SK70 values are based on the SK50 measurements, adjusted for differences in window film manufacturer Winter U-Factor specifications. Emissivity values are based on the respective window film manufacturer's product specification data.
[7] Solar Heat Gain Coefficient (SHGC) is calculated using respective % Solar Heat Gain Reduction for the SolarSkin and respective existing window SHGC.
[8] Existing single-pane window with 78% glazing area, 22% frame area used in the illustrations has a U-factor of 1.1 and SHGC of 0.8
[9] Existing double-pane window with 78% glazing area, 22% frame area used in the illustrations has a U-factor of 0.5 and SHGC of 0.4.
[10] New York City Energy Code, https://www.nyc.gov/assets/buildings/apps/pdf_viewer/viewer.html?file=2020ECC_CHC4.pdf&section=energy_code_2020, Table C402.4, for metal framing operable window.