

Technical data

Heat and sun protection

- Shading Coefficient (SC): 0.45
- Solar Heat Gain Coefficient (SHGC / **G-value**): 0.3915
- Approx. 39% of the sun's heat is transmitted
- Infrared reduction: 95%
- UV reduction: 99%

Insulation

- U-Factor: 0.48 BTU/(h·ft²·°F)
- Insulation value after installation: R4 (comparable to triple glazing)

Light and sight

- Light transmission: 88% (only 12% loss of visible light)
- Optical effect: slight bluish tint with polarized effect
reduces glare and enhances colors (green/blue)

Application & sustainability

- Suitable for single, double and triple glazing
- installation: inside
- Warranty: 10 years
- *ROI: 2–4 years*

ASTM C1363 Thermal Performance Test – U-Value

An independent laboratory test (ASTM C1363-2005 Hot Box Method) confirmed that the Nano Ecoline Glass Shield Foil membrane significantly improves the thermal performance of glass. The measured U-value is 0.48 Btu/hr ft² °F (2.72 W/m² K). This demonstrates that the membrane not only controls solar heat gain but also effectively increases the insulation value with an additional resistance of approximately 0.37 m² K/W.

Nanothermal Window Film Installation – Step by Step

1. Surface preparation

- o Cleaning the glass with a special degreaser and microfiber cloth
Removal of dust, grease, silicone residue and other contaminants
Check for damage or scratches

2. Cutting the foil to size

- o Precisely cut to size for every window type
Edges are neatly finished for a tight fit

3. Applying the foil

- o Glass is sprayed with mild, water-based application fluid
Foil is positioned on the wet surface
The foil is smoothed with a squeegee and air bubbles are removed

4. Fixation and finishing

- o Checking edges and any corrections
Permanent adhesion after drying (within ± 24 hours)
No odor nuisance or harmful fumes

5. Inspection and delivery

- o Visual inspection for clarity, adhesion and aesthetics
Customer receives warranty certificate and maintenance instructions

Advantages of this method

- No window disassembly required • Fast installation (usually within one day) • Suitable for offices, homes, hospitals, schools and more • Durable, safe and aesthetic