

WINDOW FILM PERFORMANCE DATA

| Product | VLT | VLR | Solar Energy | | | SIRR | IRER | UV Rejection | Glare Reduction | TSER |
|------------------|-------|------|---------------|-------------|------------|-------|-------|--------------|-----------------|-------|
| | | | Transmittance | Reflectance | Absorbance | | | | | |
| VISION 70S | 71.4% | 9.8% | 37.9% | 40.4% | 21.7% | 85.2% | 78.0% | ≥99% | 20.1% | 56.0% |
| NEX 05 | 7.1% | 5.2% | 7.2% | 4.8% | 88.0% | 93.0% | 66.0% | ≥99% | 92.2% | 64.0% |
| NEX 15 | 15.4% | 5.0% | 12.0% | 4.7% | 83.3% | 90.8% | 64.0% | ≥99% | 83.0% | 61.0% |
| NEX 20 | 20.6% | 5.4% | 13.4% | 5.1% | 81.5% | 92.3% | 65.0% | ≥99% | 78.0% | 60.0% |
| NEX 35 | 33.5% | 6.0% | 19.1% | 5.4% | 75.5% | 92.3% | 63.0% | ≥99% | 62.9% | 56.0% |
| NEX 45 | 45.4% | 6.5% | 25.7% | 5.6% | 68.7% | 90.0% | 63.0% | ≥99% | 49.8% | 52.0% |
| NEX 60 | 56.2% | 6.0% | 27.9% | 5.2% | 66.9% | 93.2% | 65.0% | ≥99% | 38.7% | 50.0% |
| NEX 70 | 65.8% | 7.8% | 33.7% | 6.1% | 60.2% | 90.7% | 62.0% | ≥99% | 27.1% | 46.0% |
| NEX 85 | 85.7% | 8.3% | 63.3% | 6.6% | 30.1% | 56.0% | 36.0% | ≥99% | 5.2% | 28.0% |
| SMART 05 | 7.1% | 5.1% | 13.9% | 4.9% | 81.2% | 78.9% | 60.0% | ≥99% | 92.2% | 59.0% |
| SMART 15 | 15.5% | 5.3% | 22.1% | 5.2% | 72.7% | 70.0% | 55.0% | ≥99% | 83.9% | 54.0% |
| SMART 20 | 20.1% | 5.2% | 23.3% | 5.0% | 71.4% | 75.7% | 58.0% | ≥99% | 78.8% | 53.0% |
| SMART 35 | 33.8% | 6.2% | 30.2% | 5.8% | 64.0% | 73.0% | 57.0% | ≥99% | 62.6% | 49.0% |
| SMART 45 | 42.7% | 5.9% | 34.1% | 5.4% | 60.6% | 73.4% | 56.0% | ≥99% | 52.8% | 46.0% |
| SMART 70 | 69.1% | 7.7% | 37.4% | 6.0% | 56.6% | 86.8% | 63.0% | ≥99% | 23.6% | 44.0% |
| ACTION 05 | 7.1% | 5.2% | 21.7% | 5.2% | 73.1% | 70.3% | 49.0% | ≥99% | 92.1% | 54.0% |
| ACTION 15 | 14.0% | 4.9% | 30.0% | 5.2% | 64.9% | 60.6% | 44.0% | ≥99% | 84.2% | 49.0% |
| ACTION 20 | 19.3% | 4.7% | 38.6% | 4.9% | 56.6% | 48.7% | 40.0% | ≥99% | 78.4% | 46.0% |
| ACTION 35 | 33.9% | 5.7% | 46.8% | 6.1% | 47.1% | 45.0% | 38.0% | ≥99% | 62.4% | 38.0% |
| ACTION 50 | 45.1% | 6.3% | 55.4% | 6.7% | 37.9% | 38.1% | 36.0% | ≥99% | 50.1% | 32.0% |
| ACTION 80 | 78.4% | 8.3% | 58.2% | 6.6% | 35.2% | 46.2% | 38.0% | ≥99% | 13.2% | 32.0% |
| ACTION SAFETY 05 | 7.1% | 5.2% | 21.7% | 5.2% | 73.1% | 70.3% | 48.0% | ≥99% | 92.9% | 54.0% |
| ACTION SAFETY 20 | 20.2% | 5.0% | 36.2% | 4.7% | 59.1% | 54.1% | 42.0% | ≥99% | 79.8% | 44.0% |
| ACTION SAFETY 35 | 33.9% | 5.7% | 46.8% | 6.1% | 47.1% | 45.0% | 38.0% | ≥99% | 66.1% | 38.0% |
| ACTION SAFETY 50 | 45.1% | 6.3% | 55.4% | 6.7% | 37.9% | 38.1% | 35.0% | ≥99% | 54.9% | 32.0% |
| ACTION SAFETY 05 | 7.1% | 5.2% | 22.0% | 5.2% | 72.8% | 69.5% | 49.0% | ≥99% | 92.1% | 54.0% |
| ACTION SAFETY 20 | 18.7% | 4.9% | 34.6% | 5.2% | 60.3% | 55.6% | 42.0% | ≥99% | 79.3% | 46.0% |
| ACTION SAFETY 35 | 32.6% | 5.7% | 45.6% | 6.1% | 48.3% | 45.4% | 37.0% | ≥99% | 63.9% | 38.0% |
| ICY 05 | 6.5% | 5.1% | 17.8% | 5.1% | 77.1% | 75.3% | 58.0% | ≥99% | 92.8% | 57.0% |
| ICY 15 | 12.5% | 5.5% | 24.5% | 5.7% | 69.8% | 67.7% | 55.0% | ≥99% | 86.1% | 53.0% |
| ICY 20 | 19.9% | 5.7% | 31.0% | 5.9% | 63.1% | 61.1% | 51.0% | ≥99% | 78.0% | 48.0% |
| ICY 35 | 35.9% | 6.8% | 42.6% | 6.8% | 50.6% | 51.5% | 38.0% | ≥99% | 60.3% | 41.0% |
| ICY 50 | 47.6% | 8.5% | 52.1% | 8.2% | 39.8% | 43.7% | 32.0% | ≥99% | 47.3% | 35.0% |

Glossary

Total Solar Energy Rejected (TSER)

The percentage of total solar energy rejected by filmed glass.
The higher this value, the less solar heat is transmitted.

Visible Light Transmittance (VLT)

The percentage of visible light that passes directly through filmed glass.
The higher the number, the lighter the film.

UV Rejection

The percentage of harmful ultraviolet light (UV) that is rejected by the film.
UV light contributes to sunburn and other harmful skin conditions and to the fading and deterioration of fabrics and leather.

Glare Reduction

Glare, which is produced by haze, can hinder vision, especially during nighttime.
Window films with low haze dramatically reduce this glare.

All data collected by STEK using internal testing methods. Data values are representative figures only. For more information, refer to our official technical data sheets (TDS).

- IRER measures the complete rejection of heat experienced from solar infrared radiation (780-2500nm), encompassing both absorbed and re-radiated energy.
- SIRR specifically measures solar infrared radiation (900-1000nm) that is not directly transmitted through the glass.



Types of Window Films

High-Performance Window Film

High-performance window films are a hybrid of dyed material and usually aluminum. These films are fairly reflective and provide a moderate level of heat rejection.

Carbon Window Film

Carbon window films are resistant to fading and do not contain any dyes. Nano-carbon films use the smallest carbon particles available for the best clarity and haze reduction.

Ceramic Window Film

Ceramic window films typically contain carbon, tungsten, and ATO (antimony tin oxide), as well as ITO (indium tin oxide) on occasion. These high-end films use these nanoparticles to achieve superior heat rejection and optical clarity.

Ceramic Window Film with Graphene

Along with the nanoparticles used in ceramic window films, graphene—an extremely efficient thermal conductor—may be added to a film to increase the rate of heat dissipation.

Multi-Layer Window Film

In multi-layer window films, metal sputtering technology is used to create very fine layers. The resulting films are extremely effective in blocking radiation bands from direct sources of sunlight.