

A photograph of a modern building's glass facade. The sun is reflecting brightly off the glass, creating a starburst effect. The reflection shows the interior of the building, including a car and some furniture. The sky is a clear, bright blue.

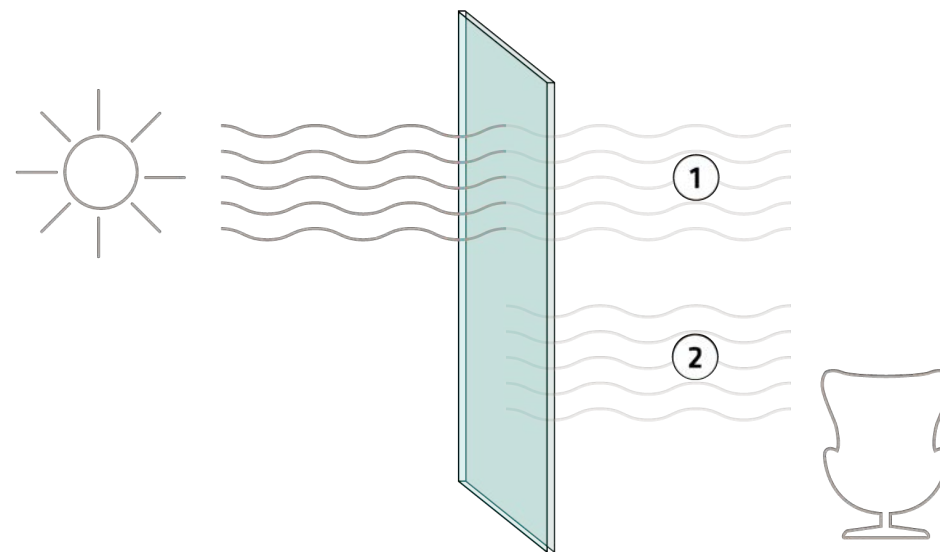
# swissFineLine

## Glass Specifications

# The G-Value: Total Solar Energy Transmittance

The total solar energy transmittance value describes how much energy can penetrate the pane and thus deliver an energy gain for the building's interior.

- It is composed of direct solar radiation that passes through the pane (1) and secondary heat dissipation (2)
- The lower the g-value, the less energy reaches the building's interior
- Benefit of a low g-value in summer: building interiors heat up less
- Benefit of a high g-value in winter: lower heating costs
- The optimal g-value is determined in each case by the architect



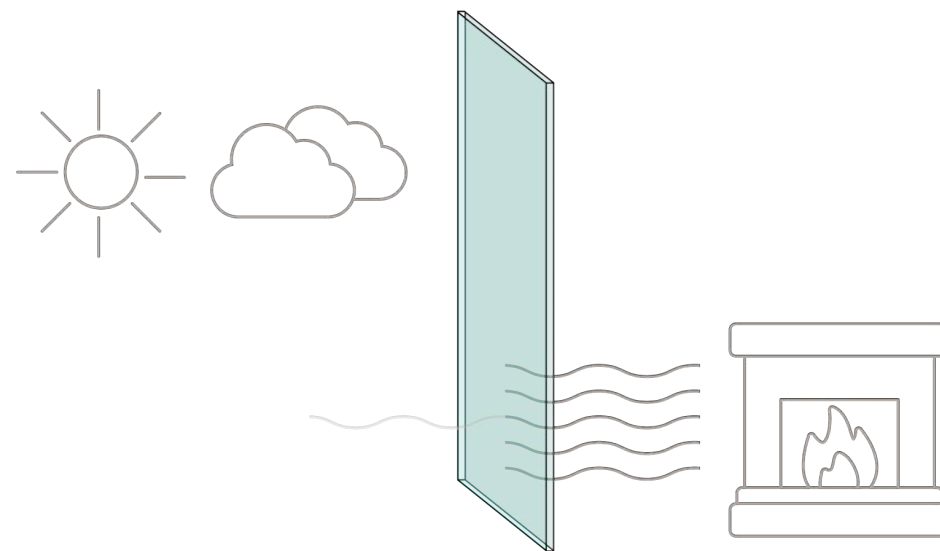
**Solar energy gain:**

if the g-value is 0.5, this means that 50% of solar energy reaches the building's interior

# The Ug-Value: Thermal Transmittance Coefficient

The thermal transmittance coefficient of glass quantifies the amount of energy a building loses through a window element.

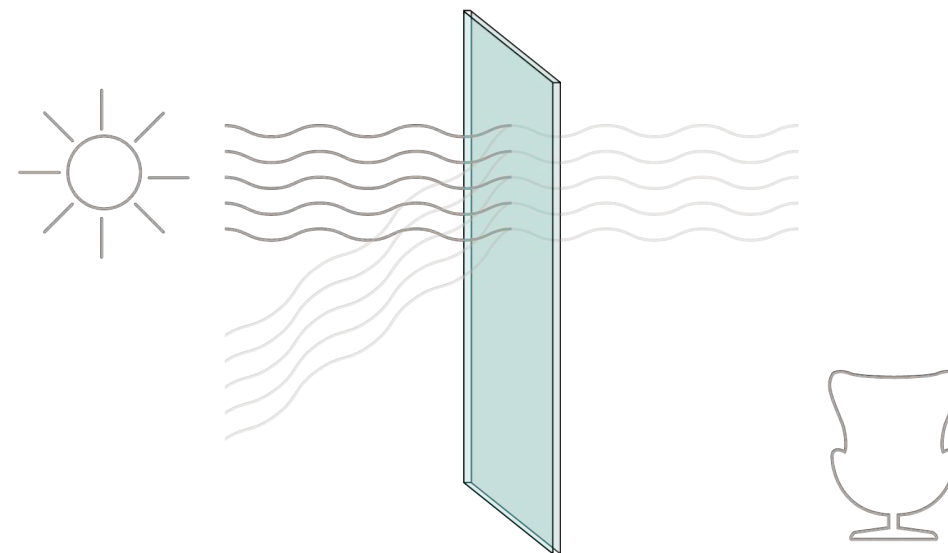
- Ug-value determines heat loss
- The lower the value, the better the glass insulation
- Triple-glazed insulation glass, which is used in swissFineLine elements as standard, achieves values of up to  $0.5 \text{ W}/(\text{m}^2\text{K})$
- Bullet-resistant panes in resistance class FB6-NS use double-glazed insulation glass, which can achieve Ug-values of approx.  $1.0 \text{ W}/(\text{m}^2\text{K})$



# The LT-Value: Light Transmittance Level

The light transmittance level indicates the proportion of visible light that passes through the pane.

- Visible light has a wavelength of 380nm to 780nm (based on the light sensitivity of the human eye)
- The higher the LT-value, the more visible light passes through to the building's interior
- Factors including the glass thickness, reflectivity and coatings affect the LT-value
- LT-values: up to 90% for float glass, up to 70% for insulated glass
- Despite the higher LT-value, it is still possible to achieve up to 99.8% UV protection > for more details, see **UV protection**



**Light transmission:**

An LT-value of 80% means that 80% of visible light passes through a pane and into a building