Coated glass

We cover every aspect of architecture
Glass connects and separates at the same time. It allows us to look inside without letting us in. We can admire or be astounded by what we see on the other side of the pane of glass. It arouses our curiosity, encourages us to dream and is perhaps the start of a new realisation.

The world is constantly changing. That of glass too. New technologies and products are constantly opening up new application possibilities.

EUROGLAS, as a member of the Glas Trösch Group, continually searches and researches, finds and invents with a great passion – not least in order to overcome challenges in engineering and to realise large, fantastic projects together with competent partners worldwide.

**Glass coating: Cosiness the whole year over**
Silver coatings that we barely notice have been providing for excellent thermal insulation values in insulating glass for over 20 years, thus allowing transparent, light-flooded architecture. However, generously sized glazing not only brings light and sight into the interior; in the cold season it also allows us to use the abundance of energy that the sun provides us with free of charge. Daylight is important for the well-being and psyche of people and thus for their quality of life. SILVERSTAR insulating glass consists of two or three panes of glass, the triple insulating glazing having developed into the standard. It provides for maximum living comfort and outstanding cosiness even right next to the window.
The realisation of contemporary glass projects necessitates an environmentally-friendly energy-saving concept. Glass coatings make an important contribution to environmental protection here. In 1987 Glas Trösch installed its own Magnetron coating line and offered heat insulation glass for the first time under the name of SILVERSTAR. Today the company has 5 Magnetron coating plants with which it can provide a large bandwidth of innovative coatings for the most diverse requirements.

It is no longer just about saving energy, but equally about energy production. Glass panes with SILVERSTAR heat insulation coatings are designed to allow the highest possible amount of solar energy through while keeping the heat in the room.

Rooms with generously sized glazing meet today’s idea of comfort. In this era of the conscious handling of nature and the environment, purely aesthetic requirements are no longer enough. A whole lot more is demanded of modern insulating glazing nowadays. Windows and thus glazing used to be regarded as „energy holes“. In the meantime efforts to improve the heat insulation values of insulating glasses have made impressive progress. Ug values of 1.0 W/m²K for double insulating glass and 0.6 W/m²K for triple insulating glass are standard nowadays. Glazing has thus become a highly heat insulating structural element.

In order to be able to offer effective heat insulation, a glass must have the lowest possible Ug value. The lower the Ug value, the lower the heat loss through the glass and thus the lower the consumption of energy. Heating costs and environmental pollution are reduced accordingly. A good Ug value also means higher temperatures on the surfaces of the glass panes on the room side. In turn, that means outstanding cosiness inside the room, even when outside temperatures are very low.

Function of a heat insulation insulating glass.

- Extremely high transmission of daylight
- Gain in solar energy
- LOW-E heat insulation coating
- Heat reflection
Solar control glass – intelligent sun protection

Generously sized glazing is now standard in modern buildings, but the undesired heating of rooms in summer can become a problem. Solar control insulating glasses help here. It lets the daylight through while reducing the amount of solar energy that enters. Wafer-thin solar control coatings applied to the glass using the SILVERSTAR Magnetron process reduce solar radiation into the room through reflection and absorption, thus preventing excessive heating of the rooms. Nevertheless, optimum utilisation of the natural daylight is still ensured thanks to the high light transmission.

Coating solutions such as SILVERSTAR COMBI combine heat and sun protection, while their high transparency lets lots of natural daylight into the interior of the room at the same time. The values of SILVERSTAR SUNSTOP T coatings contribute to a deliberately low consumption of energy by air conditioning systems and thus to a significant lowering of costs. The overheating of rooms is thus effectively prevented, while at the same time providing for a high transmission of light and a captivating exterior view. To give glass facades a particular characteristic, accentuation through colour reflections is employed as an individual means of design. The colour aesthetics of a glass building envelope self-confidently convey its own identity.

Effective against the sun
Natural daylight is a major factor for life on earth. It influences people in a positive way and fortifies health and psyche.

Sun protection variants
The g-value, the light transmission and the visual appearance can be influenced by factors such as the coating material, the layer thickness and the colouring of the glass. Each solar control coating is optimised in such a way that a high light transmission remains despite a low energy transmittance.

SILVERSTAR SUPERSELEKT
The SILVERSTAR SUPERSELEKT insulating glasses are optimised to achieve the highest possible degree of light transmission and a low total energy transmittance. This ratio is expressed by the selectivity classification figure.

SILVERSTAR SELEKT
This neutral coloured insulating glass combines sun protection with heat insulation in an optimum ratio for a pleasant room climate throughout the year. SILVERSTAR SELEKT is thus also called „four seasons glass“.

SILVERSTAR COMBI
The SILVERSTAR COMBI insulating glass panes offer a balanced range of neutral-coloured or shaded coatings with graduated light transmission and total energy transmittance values.

SILVERSTAR SUNSTOP
These insulating glass panes, which are optimised for sun protection, offer maximum protection against solar radiation. Due to the coloured appearance of the strongly reflecting glass panes, SILVERSTAR SUNSTOP also opens up special design possibilities.
HY-TECH-GLASS from Glas Trösch provides glass panes with optical interference coatings to reduce disturbing mirroring and reflections to a minimum. In this way reflection-free insights are allowed where a clear view is necessary, or undesired looks are kept out by means of mirrored surfaces. HY-TECHGLASS offers products with different anti-reflective and reflective coatings. For instance, the LUXAR® NG anti-reflection glass guarantees invisible protection for works of art or high-quality products. The glass offers outstanding transparency without being visually perceptible. Spy-mirror and beamsplitter glasses are partially mirrored coated on one side and are used for classic observation situations. The creative integration of monitor screens and displays is equally conceivable, as are a multitude of interior and exterior design possibilities.

LUXAR® NG

Anti-reflective glass

LUXAR® NG is an innovative product from Glas Trösch – a glass with reflection-free surfaces. With a reflection of less than 0.5% per surface, you can put an end to interfering reflections with the Magnetron-coated LUXAR® NG. Visually, therefore, LUXAR® NG is barely perceptible.

LUXAR® NG is used wherever a partition is necessary but should remain invisible:
- Architecture
- Shop windows
- Picture frames
- Video walls
- Switchgear
- Display cabinets, etc.

SPYMIRROR

Protected from sight, SPYMIRROR allows you to take on the role of observer without being seen yourself. This is made possible by a multi-layer optical interference coating on the glass. If the SPYMIRROR is used as a partition between two rooms with different lighting levels, the desired observation or mirror effect results. The coated and uncoated sides of the glass exhibit differing reflection values, so that the effects are purposefully intensified.

The SPYMIRROR is available with different light transmission values, which allows fine graduations with regard to mirroring and transparency. There must be a difference in the lighting levels in order to ensure the desired effect. Depending on the type, the light intensity ratio between the two rooms must be at least between 1:5 and 1:15 Lux.
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