

tvitec

 **ISOLAR**
SOLARLUX®

*Thermal insulation
and solar control*

**ISOLAR®
GLAS**

MEHR AUS GLAS



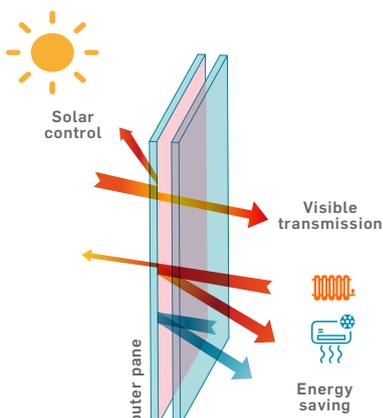
SOLARLUX

THERMAL INSULATION AND SOLAR CONTROL

Solarlux® is a solar control and thermal insulation glass, capable of providing high levels of natural light by blocking solar heat radiation.

It is made up of a substrate to which several layers of metal oxides are applied by cathodic sputtering under vacuum conditions.

Solarlux® plays an important role in blocking the transmission of solar radiation which prevents heat from entering the interior of the building and improves thermal comfort, all while reducing energy loss to the exterior. It is a great economic saving.



► The high technology of the Solarlux® glass results in high values in light transmittance and good solar factor values, i.e. it allows a large part of the energy in the visible spectrum to go through while reflecting another large part of the solar energy (infrared energy) responsible for unwanted heating of the building.

The relationship between light transmission values and the solar factor is known as selectivity because of its high light contribution and optimal solar control. Following this approach, Solarlux® has a wide variety of selective glass.

The incorporation of argon gas in the cavity of an ISOLAR Solarlux® glass provides efficient thermal transmittance values.



➤ SERVICES

Spectrally selective, allowing visible light to penetrate (τ_v) up to 70% and improving the solar factor (g) causing internal unwanted heating.

Excellent thermal comfort both in summer (solar control) and in winter (thermal insulation).

It prevents the overheating of the room thanks to the solar energy transmitted to the interior and therefore avoids unnecessary expenses of the air-conditioning and heating systems.

Its transparency provides an efficient use of natural light, allowing users to dispense with other solar control systems such as Venetian blinds, shutters or curtains.

Low levels of thermal transmittance (U_g).

It is an environment-friendly product, since it generates fewer carbon dioxide emissions into the atmosphere. Reduction of the greenhouse effect.

The Solarlux® HT type is now available for heat-treated coated glass while maintaining performance in both values and appearance. Both glasses can be combined on the same façade.

This glass contributes to the achievement of LEED BREEAM and WELL points.

➤ SCOPE OF APPLICATION

Solarlux® is recommended in double-skin façades, curtain walls, for **unique buildings** of offices, shopping centres, airports and those buildings used to accommodate people such as museums, schools or hospitals.

In addition, they are ideal for **residential use**, for enclosures, roofs and skylights

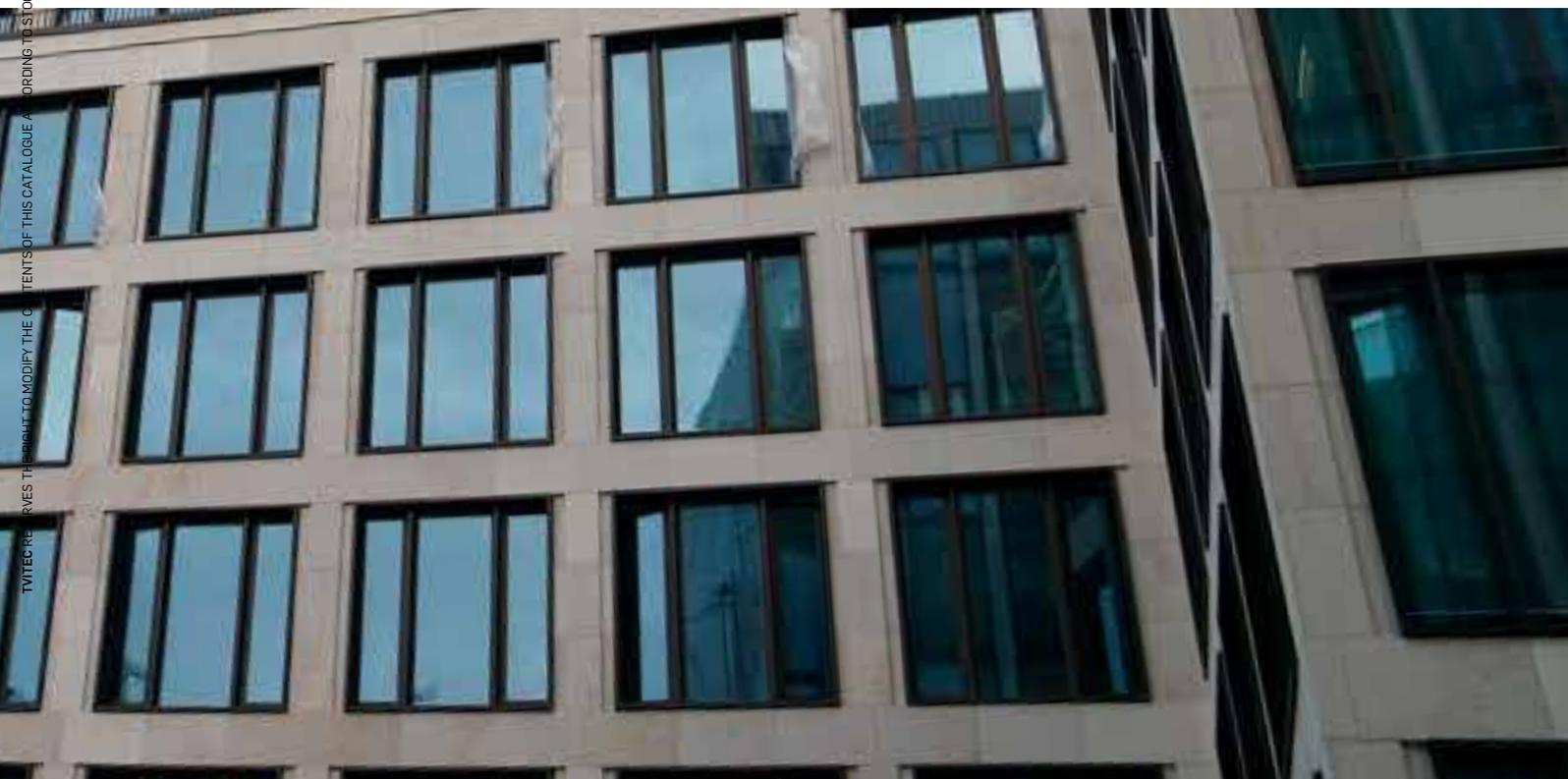


➤ PRODUCT RANGE

Standard dimension 3.210 x 6.000 mm. Greater dimensions, check availability.

Standard thickness 6, 8, 10 mm. Thickness 4, 5 and 12 mm check availability.

Available processing: laminated, heat-strengthened or tempered (HT).





➤ PROCESSING

Solarlux® can be heat-strengthened (Duritec®HS) or tempered (Duritec® safety glass) so that it increases its mechanical and thermal resistance. An optional second process after tempering, Heat Soak Test (HST) is used to reduce the risk of spontaneous breakage.

Solarlux® is used in insulated glass units (ISOLAR®) with the coating on the cavity face of the outside pane. It is available on both monolithic and laminated glass.

TVITEC recommends to request product samples before the project implementation.

For any design request, please contact the technical department.

➤ SPECIFICATIONS

In triple glazing, the thermal insulation properties of Neutralux® glasses can be reinforced by placing the layer inside the second pane cavity, which allows to obtain thermal transmittance values (Ug) of up to 0.6 [W/m²·K].

These are layers categorised as class C, according to the requirements of the EN 1096 standard. In addition to being compliant with the European CE marking.



Performance values

Product name	Layer position	Visible light %		Solar energy %		Thermal transmittance (U-value)	
		Transmittance (τv)	Reflectance (ρve)	Transmittance (τe)	Solar factor g	Argon	Air

Values for the Double Glazing: 6 mm | gap 16 mm | 4 mm

Solarlux® 70	Face #2	69	11	37	40	1.1	1.4
Solarlux® 60	Face #2	62	21	40	44	1.1	1.3
Solarlux® 50	Face #2	50	30	31	34	1.1	1.3

Triple Glazing: 6 mm | gap 16 mm | 6 mm | gap 16 mm | 6 mm (+ Low-e coating Neutralux® #5)

Solarlux® 70	#2 (+#5)	60	13	30	36	0.6	0.7
Solarlux® 60	#2 (+#5)	53	23	29	37	0.6	0.7
Solarlux® 50	#2 (+#5)	44	31	23	29	0.6	0.7

The performance values shown have been obtained by means of calculation programmes and may differ from those provided by the end product. These are based on the calculation systems described in the current standards (EN 410:11 and EN 673:11). The tolerances are defined according to EN 1096-4.

For further information, do not hesitate to contact your sales representative or our technical team.



*Thermal insulation
glass with greater
luminosity*

**ISOLAR®
GLAS**

MEHR AUS GLAS



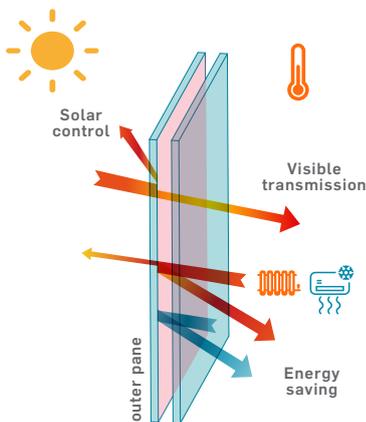
SOLARLUX ONE

THERMAL INSULATION AND SOLAR CONTROL GLASS

Solarlux® ONE is an innovative glass system which combines reinforced thermal insulation and solar control, guaranteeing great luminosity while maintaining an ideal temperature for your home throughout the year.



Comfort and savings with Solarlux® ONE are achieved thanks to the thermal insulation system in cold times, without excessive use of heating, and the solar control which in summertime avoids the use of air conditioning.



► Solarlux® ONE glass technology is based on the application of a metallic layer to the base by means of magnetron projection, which will prevent the solar spectrum from entering through the glazing to optimise the energy efficiency of the premises.

Once assembled in a double glazing, it will allow visible light to penetrate by 73% (τ_v) and it will reflect a large amount of direct solar energy, which is responsible for the increase in temperature inside the building.

The incorporation of argon gas in the chamber of ISOLAR Solarlux ONE® glazing provides efficient thermal transmittance values.

* Solarlux® ONE with the coating on the cavity face of the outside pane .



➤ SERVICES

Significant energy savings throughout the year for both the heating system and the air conditioning system.

Solar protection by preventing energy transmission to the interior of the building while maintaining comfort.

It prevents heating losses through the glass.

With a neutral aspect, it brings plenty of light to the interior.

Thanks to its low transmittance (U_g), it reduces the possibility of surface condensation of the glass.

It is an environment-friendly product, since it generates fewer carbon dioxide emissions into the atmosphere.

This glass contributes to the achievement of LEED, BREEAM and WELL points.

➤ PRODUCT RANGE

Standard dimension 3.210 x 6.000 mm.
Greater dimensions, check availability.

Standard thickness 6, 8, 10 mm.
Thickness 4, 5, y 12 mm, check availability.

Available processings: Laminated.

➤ SCOPE OF APPLICATION

Solarlux® ONE glasses are perfect for restoration and new construction works in **residential** areas, in houses, flats and galleries.

In compliance with the energy savings requirements defined in the Technical Building Code (CTE, for its Spanish initials).

In **services buildings**, where it is important to control solar energy to avoid overheating, such as in schools and hospitals.

A glass solution which is perfect for buildings with large south-facing windows.





➤ SPECIFICATIONS

➤ PROCESSING

It is supplied in insulated glass units (ISOLAR®) with the coating on the cavity face of the outside pane. It is available on both monolithic.

TVITEC recommends to request product samples before the project implementation.

For any special processing request, please contact the technical department.

In triple glazing, its thermal insulation properties can be reinforced when using Neutralux® glasses, by placing the layer inside the second pane cavity, which allows to obtain thermal transmittance values (U_g) of up to 0.6 [$W/m^2 \cdot K$]. It can provide up to three times more thermal insulation than uncoated glass.

These are layers categorised as class C, according to the requirements of the EN 1096 standard. In addition to being compliant with the European **CE** marking.



Performance values

Product name	Layer position	Visible light %		Solar energy %		Thermal transmittance (U-value)	
		Transmittance (τ_v)	Reflectance (ρ_{ve})	Transmittance (τ_e)	Solar factor g	Argon	Air
Values for the Double Glazing: 6 mm gap 16 mm 4 mm							
Solarlux ONE®	Face #2	72	10	41	45	1.1	1.4
Triple Glazing: 6 mm gap 16 mm 6 mm gap 16 mm 6 mm (+ Low-e coating Neutralux® #5)							
Solarlux ONE®	#2 (+#5)	64	13	28	35	0.6	0.7

The performance values shown have been obtained by means of calculation programmes and may differ from those provided by the end product. These are based on the calculation systems described in the current standards (EN 410:11 and EN 673:11). The tolerances are defined according to EN 1096-4.

For further information, do not hesitate to contact your sales representative or our technical team.

*Our leadership
is based on
excellence, innovation
and the most avant-garde
techniques.*

#passionforglass



Tvitec System Glass



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The information is provided to the best of our knowledge, but excludes any guarantee, printing errors and changes

glass from another dimension

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