

**MORE EFFICIENCY  
AND ENVIRONMENTAL  
PROTECTION.**

© Arnold Glas



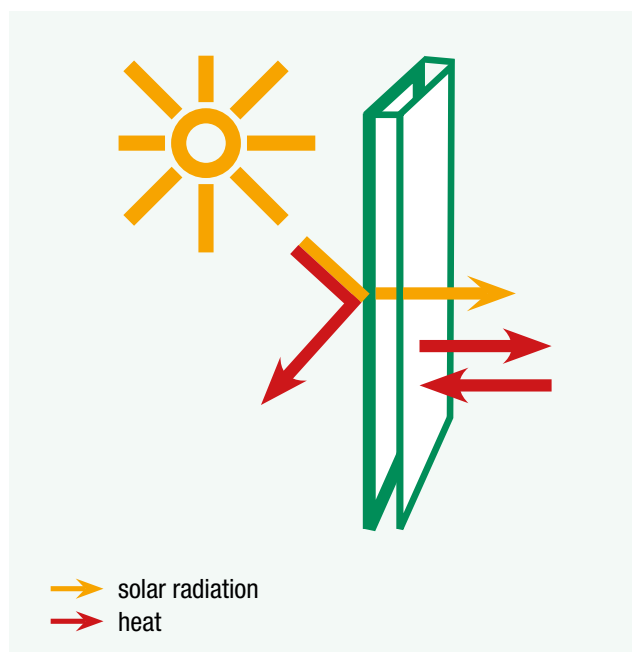
# PREMIUM GLASS FOR PREMIUM SOLAR CONTROL.

ISOLAR SOLARLUX® ensures balanced room conditions both in summer and winter. Thanks to three very special product features, the requirements for environmental protection, comfort and energy efficiency are all clearly met:

- Reduction in usable solar radiation which heats up a building (“summer function”)
- High heat insulation in colder weather (“winter function”)
- High light transmission for good use of daylight and room lighting

## A CLIMATE ALL-ROUNDER – IN YOUR ROOMS AND IN THE ENVIRONMENT.

The challenge is enormous: Modern solar control glass should ensure that the heat stays where it is, in summer and in winter. The design of multi-function coatings, which are applied to at least one of the glass surfaces, is the secret to this success. They can differentiate between visible light which provides brightness in the room, and the infra-red part of the solar radiation, which is responsible for heating up rooms behind glass surfaces. The multi-function coatings allow a high proportion of the visible light to pass through, while the longer wavelength infra-red radiation of the sun with its heat radiation is mainly reflected. This is why these coatings are known as “selective”. So the heat stays out in summer and stays in during winter. This takes pressure off the conditions in the room, or the air conditioning, and makes best use of the daylight.



ISOLAR SOLARLUX® in summer-time function.

## SOLAR CONTROL GLASS RE-INVENTED.

Glass of the ISOLAR SOLARLUX® A series can do even more: The four multi-function coatings for ISOLAR SOLARLUX® A70, A60, A50 and A40 are perfectly aligned with each other in terms of optics. Despite different values for light transmission and solar factor, they can be combined with each other perfectly. All four versions can be used flexibly within one building, as per client requirements. This allows us to combine functionality and design in an unprecedented way.

## CLARITY BY TYPE AND DESIGN.

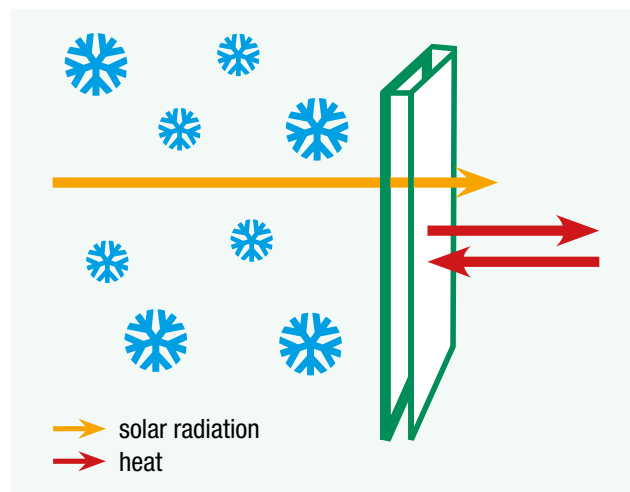
When choosing suitable solar control glass, it is important to be aware of the conditions in the location and determine the desired functionality.

Decisive factors include:

- Direction of the glass surface (compass direction)
- Use of the building and division of space
- Type of façades system (design)
- Desired level of light and energy transmission (technical values)
- Desired overall appearance (optics)

The option of adding particular accents to the outside of a building using modern glass technology is great for appearances and the planner. For the non-transparent parts of the façades, the ISOLAR® product range offers solutions attractively aligned with ISOLAR SOLARLUX® solar control glass, right up to high performance panels with vacuum technology.

All ISOLAR SOLARLUX® solar control glass comes in double or triple glass assembly. The latter includes a second coating in the inward-facing cavity between the panes.



ISOLAR SOLARLUX® in winter-time function.



Katharinenturm Magdeburg, built with: ISOLAR SOLARLUX® // Photo: © ISOLAR GLAS

## ISOLAR SOLARLUX® SOLAR CONTROL GLASS, DOUBLE GLASS ASSEMBLIES

Glass type		Appearance	Light transmission (DIN EN 410) in % (±2)	Light reflexion (DIN EN 410) in % (±2)	Solar factor g value (DIN EN 410) in % (±2)	Shade coefficient (b-factor)	Selectivity characteristic	Glass assembly	U <sub>g</sub> (DIN EN 673) in W/m <sup>2</sup> K	
									Cavity in mm	
									15/16 Ar	12 Ar
A 70	// 70.37	neutral blue	70	13	37	0,47	1,9	6/4	1,0	1,2
A 60	// 61.33	neutral blue	61	14	33	0,42	1,8	6/4	1,0	1,2
A 50	// 53.28	neutral blue	53	18	28	0,35	1,9	6/4	1,0	1,2
A 40	// 43.23	neutral blue	43	22	23	0,29	1,8	6/4	1,0	1,2
platin	// 71.42	green grey	71	11	42	0,53	1,7	6/4	1,1	1,3
neutral	// 61.34	neutral	61	14	34	0,39	1,8	6/4	1,0	1,2
silber-light	// 57.47 <sup>1)</sup>	silver	57	35	47	0,58	1,2	6/4	1,1	1,3
D 50	// 50.33	neutral blue	50	30	33	0,41	1,5	6/4	1,1	1,3
silber	// 40.21	silver	40	33	21	0,21	1,9	6/4	1,0	1,2
silber-blau	// 37.27 <sup>1)</sup>	silver blue	37	18	27	0,31	1,4	6/4	1,1	1,3

## ISOLAR SOLARLUX® SOLAR CONTROL GLASS, TRIPLE GLASS ASSEMBLIES

Glass type		Appearance	Light transmission (DIN EN 410) in % (±2)	Light reflexion (DIN EN 410) in % (±2)	Solar factor g value (DIN EN 410) in % (±2)	Shade coefficient (b-factor)	Selectivity characteristic	Glass assembly	2 x 12 Ar	2 x 14 Ar
A 70	/// 63.34	neutral blue	63	15	34	0,43	1,8	6/4/4	0,7	0,6
A 60	/// 56.31	neutral blue	56	16	31	0,38	1,8	6/4/4	0,7	0,6
A 50	/// 48.26	neutral blue	48	19	26	0,32	1,9	6/4/4	0,7	0,6
A 40	/// 39.21	neutral blue	39	23	21	0,26	1,8	6/4/4	0,7	0,6
platin	/// 64.38	green grey	64	13	38	0,48	1,7	6/4/4	0,7	0,6
neutral	/// 56.31	neutral	56	16	31	0,36	1,8	6/4/4	0,7	0,6
silber-light	/// 56.31 <sup>2)</sup>	silver	53	37	40	0,50	1,3	6/4/4	0,7	0,6
D 50	/// 45.29	neutral blue	45	31	29	0,36	1,6	6/4/4	0,7	0,6
silber	/// 36.19	silver	36	33	19	0,24	1,9	6/4/4	0,7	0,6
silber-blau	/// 34.23 <sup>3)</sup>	silver blue	34	18	23	0,29	1,7	6/4/4	0,7	0,6

Other types on request. Dimensions in accordance with the current valid price list. Gas fill level = 90%

Type code:

1st Number = light transmission (%)

2nd Number = solar factor (%)

The types and values above are based on information in the ISOLAR® programme as at 01/2017. Please consult the latest version in each case! All ISOLAR SOLARLUX® solar protection glass can be fitted with thermally enhanced edge seal system (Warm Edge) on request. The performances indicated correspond to the relevant, applicable test norms and legal directives, and the test measurements and conditions required or described there. Any formats and combinations deviating from these, as well as, for example, design-related adaptations to glass thickness may lead to a difference with regard to individual performances. The values indicated refer exclusively to the glass elements. The values for other components depend essentially on the frame construction. U<sub>g</sub> values are calculated in accordance with DIN EN 673 based on vertical installation. Due to the tolerance of entry parameters, a deviation from the calculated values of up to 0.1 W/m<sup>2</sup>K is possible.

1st Additional Low-E coating at level 3.

2nd Additional Low-E coating at level 3, middle pane is thermally toughened.

# CLEAR BENEFITS WITH ISOLAR® GLAS.

ISOLAR® GLAS is the insulating glass brand of the ISOLAR® GLAS group. It stands for continually high quality and a high level of safety in product application. This is guaranteed by a comprehensive, three-stage quality system: It includes our own factory production control of manufacturing companies as well as external monitoring by the ISOLAR® GLAS group and independent bodies.

As one of the biggest associations of independent manufacturers of insulating glass in Europe, the ISOLAR® GLAS group is made up of companies in ten different countries. Thanks to close cooperation within the group, customers always have an ISOLAR® GLAS partner nearby, who can offer their support as a highly-competent service provider with a comprehensive range of consulting services.

Every member of the ISOLAR® GLAS group specialises in the manufacture and processing of flat glass. This means they can demonstrate an extraordinarily wide range of products for the sector. In addition, they can produce bespoke solutions for individual projects in ISOLAR® GLAS quality. The portfolio contains ten product groups, covering the various functional areas, whose properties can be combined with each other.

Everything at a clear glance:

- High-quality products, complete range
- Quality control via internal and external monitoring
- Advisory expertise in all aspects of glass
- Flexibility of a medium-sized organisation
- Decentralised structure, short lead times



-  Heat insulation
-  Sound reduction
-  Solar control
-  Burglary protection
-  Safety glass
-  Fire protection
-  Bird protection
-  Vacuum heat technology
-  Light optimisation
-  Aesthetic design

## We'll be happy to advise you.

The ISOLAR® GLAS group is your competent partner when it comes to glass. We turn your requests into clear solutions. Just ask us.



Glaswerke Arnold GmbH & Co. KG  
Alfred-Klinge-Str. 15 | 73630 Remshalden  
Germany | Phone + 49 7151 7096-0  
info@arnold-glas.de | [www.arnold-glas.de](http://www.arnold-glas.de)

