



arcon®

Solar control glass



**SOLAR CONTROL
GLASS FOR
GREATER COMFORT
& ENVIRONMENTAL
PROTECTION**

 **arcon**
perfection in glass

ENVIRONMENTAL PROTECTION, LIVING COMFORT AND ENERGY EFFICIENCY – ALL IN ONE. WITH SOLAR CONTROL GLASS YOU HAVE ALL THESE ASPECTS IN PLACE FOR A BALANCED INDOOR CLIMATE IN EVERY SEASON.

■ THE MULTITALENT FOR EVERY CLIMATE

The purpose of modern solar control glass should be to ensure that heat in summer and winter stays where it belongs – and that's exactly what our solar control glass does with a selective multifunctional coating. Depending on the multi-pane glazing, this coating is applied to at least one of the glass surfaces. The coating has been designed to allow maximum visible light into the interior of the room, while reflecting long-wave thermal radiation, which contributes to overheating in summer, outside the building. In addition, the coating has a very low emissivity, which reduces heat loss in cold seasons.

This keeps the heat out in summer and keeps it in during winter. Solar control glazing not only ensures a pleasant indoor climate and optimal use of natural daylight, but also reduces the load on air conditioning systems in the building.

These special product features of solar control glasses by arcon® make them a 'multi-talent' in aspects of environmental protection, living comfort and energy efficiency, and are available to you in more than 60 different designs.



sunbelt® A60 in the corporate office building of Fischer Kälte-Klima near Stuttgart, Germany.

■ CLARITY ON TYPE AND DESIGN

In order to be able to select a suitable solar control glass, it is important to know the local conditions at the place where it be used and to determine the desired functions. The decisive factors in this selection process include the orientation of the glass surface (cardinal direction), the use of the building and the space layout, the type of façade system, the desired light and energy transmission - and ultimately the desired overall visual impact. All our solar control glasses have excellent thermal insulation properties, which reduce heating costs in the cold season. Moreover, the glasses can be easily combined with other functional glasses from arcon® - such as sound insulation glass or alarm glass. In addition to our most popular solar control glasses, we offer other project-specific product variants. So we can guarantee that we will find the right variant of our products for each of your requirements.



sunbelt® arctis at the Fachhochschule (University of Applied Sciences) Potsdam, Germany.

■ CLASSIC SOLAR CONTROL GLAZING

With our **sunbelt® A series**, you no longer have to choose between need-based solar protection and visual harmony within a building. The requirements for total solar energy transmittance (g-Value) and light transmittance (Lt) are defined by the architect based on the building physics measurements. The three solar control layers A51, A61 and A71 can then be used as required on the different orientations of a building. The uniformity of the colours of the different coatings preserves the visual harmony of the building and reduces the energy requirements of the building.

In addition, the increased light transmission on the sides facing away from the sun further contributes to the increased comfort of the building users and occupants.

These solar control glasses also stand out for their neutral transmission colour in low external and internal reflection. Further, they are available in the variants of float glass, tempered safety glass and heat strengthened glass and can also be curved or bent. Make the A-Series a part of your architectural and environmental success story.



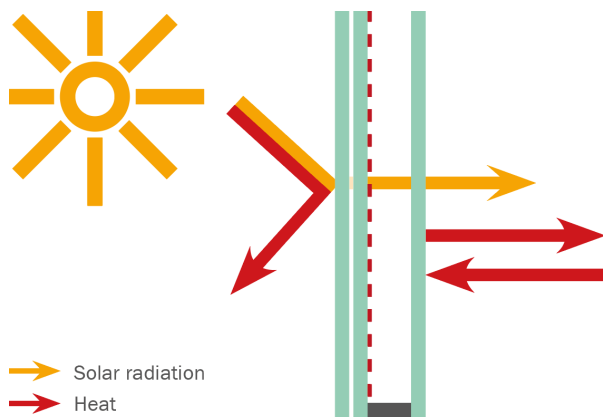
sunbelt® A70 at the Glonnal Realschule (Secondary School) Odelzhausen, Germany.

■ A VARIETY OF TREATMENT OPTIONS FOR YOUR FACADES

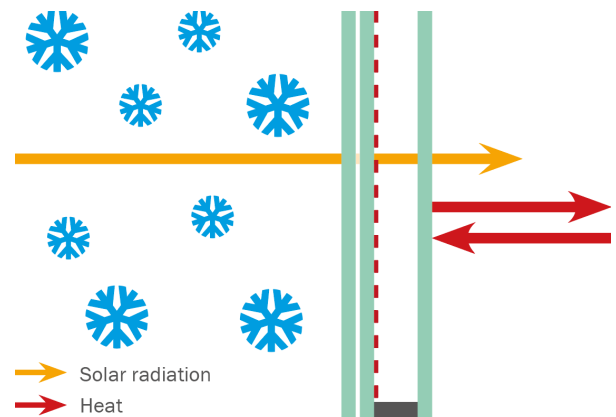
The innovative coating design of the **sunbelt® D series** allows you to use a combination of non-tempered float glass and tempered safety glass/heat strengthened glass without any noticeable change in colour due to the thermal treatment. sunbelt® D40, D50, D60 and D70 have outstanding optics due to their brilliant, neutral blue-grey external reflection and low angle-dependence. The glass impresses with its excellent thermal insulation properties, which reduce heating costs in winter. In return, the high energy reflection prevents the building from heating up in summer, which saves costs of air conditioning devices.

sunbelt® E71 provides you with an extremely neutral, low-reflection solar control glass. By optimizing the technical parameters, sunbelt® E71 achieves an Ug-value of 1.0 W/(m²K) and a g-value of 39%. Thus, it provides effective sun protection in summer and thermal insulation in winter. The low light reflection also ensures perfect transparency.

How sunbelt® works in summer



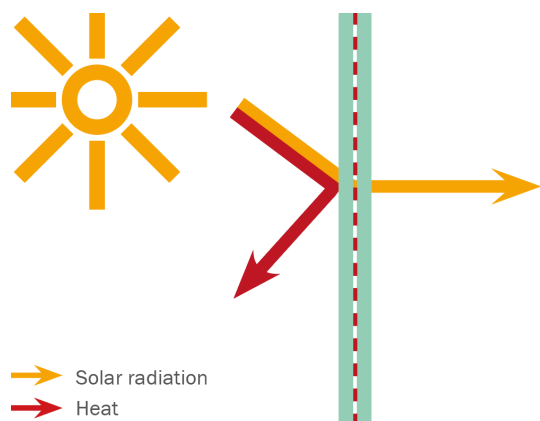
How sunbelt® works in winter



MONOLITHIC SOLAR CONTROL

The **sunbelt® sunlite** family consists of monolithic solar control glass that can be installed directly in the façade without any additional processing. These glazings are suitable for use in curtain walls, glass louvres, terrace roofing, spandrel glass, winter garden glazing or windbreak glazing.

How sunlite works



sunbelt® sunlite A is a highly transparent, low-reflection laminated solar control safety glass that is frequently installed as a curtain wall with thermal insulation glazing behind it, thus achieving previously unattainable selectivity values. Since no de-lamination of the edges is required, sunbelt® sunlite A shines out with a uniform appearance and can also be designed without restriction using printing or enamelling.

sunbelt® sunlite bright stands out for its silvery reflection and high light transmission. The neutral transmission colour perfectly enhances the excellent photometric properties. This glass opens up new possibilities for applications that could previously only be achieved with pyrolitic coatings (so-called hard coatings). Visually, the glass lends a special charm to any building thanks to its high colour rendering index in transparency and reflection. It can be laminated and bent into laminated safety glass and can be customized by combining with printing or enamelling.

With similar properties as sunbelt® sunlite bright, **sunbelt® sunlite grey** has a neutral gray reflection as well as transmission and has impressive optical properties.

TECHNICAL DETAILS AT A GLANCE

Product name	Glass construction	EN 673	EN 410					EN ISO 717-1	Thick- ness	Weight	heat treatable/ bendable
	Outer/Cavity/Mid/Cavity/Inner	U ₀ -Value	Light Transmission	g-Value	Light Reflection external	Light Reflection internal	Colour Rendering Index R _a	Sound insulation R _w /C _{tr}			
		W/(m²K)	%	%	%	%		dB			
sunlite A /	6:6.2	5,4	76	50	7	7	89	37	13	30	no
sunlite A /	8:8.2	5,3	75	50	7	7	88	40	17	41	no
sunlite grey 65 oHT /	6:6.2	5,4	69	67	8	9	99	37	13	30	yes
sunlite grey 65 oHT /	8:8.2	5,3	68	64	8	9	98	40	17	41	yes
sunlite grey 45 oHT /	6:6.2	5,4	46	49	12	12	97	37	13	30	yes
sunlite grey 45 oHT /	8:8.2	5,3	45	48	12	12	96	40	17	41	yes
sunlite bright oHT /	6:6.2	5,4	74	67	21	21	98	37	13	30	yes
sunlite bright oHT /	8:8.2	5,3	72	65	22	22	98	40	17	41	yes
sunbelt A71 //	6: / 16 / 4	1,0	70	37	13	14	96	36	26	25	yes
sunbelt A61 //	6: / 16 / 4	1,0	61	33	13	12	93	36	26	25	yes
sunbelt A51 //	6: / 16 / 4	1,0	52	28	14	11	92	36	26	25	yes
sunbelt D70 oHT //	6: / 16 / 4	1,1	68	46	21	19	97	36	26	25	yes
sunbelt D60 oHT //	6: / 16 / 4	1,1	58	40	28	20	97	36	26	25	yes
sunbelt D50 oHT //	6: / 16 / 4	1,1	50	33	30	21	95	36	26	25	yes
sunbelt D40 oHT //	6: / 16 / 4	1,1	40	28	36	15	94	36	26	25	yes
sunbelt E71 //	6: / 16 / 4	1,0	70	39	12	14	97	36	26	25	yes
sunbelt silber // 40.21	6: / 16 / 4	1,0	40	21	33	18	94	36	26	25	yes
sunbelt gold // 29.28	6: / 16 / 4	1,2	29	28	36	51	92	36	26	25	no
sunlite bright oHT // ¹⁾	6: / 16 / :4	1,1	60	50	33	32	98	36	26	25	yes
sunbelt S65 HT //	6: / 16 / 4	1,0	65	42	26	25	96	36	26	25	yes
sunbelt A71 /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	63	35	15	16	95	38 / -2 / -7	42	35	yes
sunbelt A61 /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	55	31	14	14	92	38 / -2 / -7	42	35	yes
sunbelt A51 /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	47	26	16	14	91	38 / -2 / -7	42	35	yes
sunbelt D70 oHT /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	62	41	23	20	96	38 / -2 / -7	42	35	yes
sunbelt D60 oHT /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	53	36	29	21	96	38 / -2 / -7	42	35	yes
sunbelt D50 oHT /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	45	29	31	22	94	38 / -2 / -7	42	35	yes
sunbelt D40 oHT /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	36	24	36	17	93	38 / -2 / -7	42	35	yes
sunbelt E71 /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	64	36	14	16	96	38 / -2 / -7	42	35	yes
sunbelt silber /// ¹⁾ 36.19	6: / 14 / 4 / 14 / :4	0,6	36	19	33	20	93	38 / -2 / -7	42	35	no
sunbelt gold /// ¹⁾ 26.23	6: / 14 / 4 / 14 / :4	0,7	26	23	37	47	91	38 / -2 / -7	42	35	no
sunlite bright oHT /// ¹⁾ . ²⁾	6: / 14 / :4 / 14 / :4	0,6	55	43	35	31	98	38 / -2 / -7	42	35	yes
sunbelt S65 HT /// ¹⁾	6: / 14 / 4 / 14 / :4	0,6	60	38	28	25	95	38 / -2 / -7	42	35	yes

¹⁾ Additional Low-E coating N34 on level 3 or 5. ²⁾ Additional Low-E coating on level 3, middle pane is thermally toughened. I oHT: optionally heat-treatable. All sunbelt A types and sunbelt E71 are also available as hardenable coating. Matching spandrel elements are available for all arcon® solar control glass units for use as cold or hot panels.

■ NEW: ARCONNECT SUNBELT® A

Our solar control glasses are now also available as **arconnect sunbelt® A** – A71, A61 or A51. This product not only offers optimal sun protection properties, but also convince with its radio-transparent function. The glass is optimised to be permeable to all common mobile frequencies – including the new 5G standard. This saves you a lot of electrosmog and ensures longer battery life and good mobile phone reception inside the building. Increase your well-being with two functions in one glass.



With arconnect sunbelt® A, you can make phone calls inside the building without any problems.

SOLAR CONTROL GLASSES – THE KEY BENEFITS

- Low Ug-value and low g-value
- High level of light transmission for greater comfort inside the building
- Can be easily combined with other properties, such as sound insulation
- Allows adding special accents to the exterior design of buildings

AVAILABILITY AND COMBINATIONS:

- Available as jumbo sheet 6,000 x 3,210 mm
- Oversizes up to 12,000 mm as well as 5,100 mm, 4,500 mm on request
- Fixed size coatings available for printed or otherwise processed glasses
- Available as laminated safety glass or can be processed into laminated safety glass
- All coatings available as heat-treatable (HT) or optionally heat-treatable (oHT) version
- Glass with coating is thermally bendable
- No restrictions on the edge processing of the glasses
- All constructions available as alarm glass
- NEW: Available as arconnect sunbelt® A (not heat-treatable)

■ CLEAR BENEFITS WITH ARCON®

arcon® is one of the leading glass finishers in Europe. The product portfolio includes top products in the field of coated architectural glass such as high-performance thermal insulation coatings, solar control coatings and other special glasses. These include, for example, bird-friendly glass with transparent or metallic markings, radio-transparent thermal insulation glass and decorative glass coatings in metallic designs individually tailored to customer requirements. As a member of the Arnold Glas Group, we are able to exploit synergies for our customers. In addition to the arcon® range of services, this cooperation enables us to offer complete solutions from insulating glass to façade construction.



Heat insulation



Solar control



Bird protection



Design



Radio transparency



Sound insulation

■ WE'RE HERE TO HELP.

As part of the Arnold Glas Group, arcon® is your competent partner when it comes to flat glass finishing. We turn your wishes into clear solutions. Ask us.

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