



SANCO[®]
GROUP

SANCO[®]
Multifunctional
insulating glass

www.sanco.de



THE RANGE OF SERVICES AND PRODUCTS FOR **GLAS**





S, WINDOWS, FACADES

New accents for glass structures

The SANCO Group today produces an extensive product range. That includes glasses not only for high thermal insulation, but also for sound insulation, solar control and safety. Brand quality, the very latest treatment processes and vast experience have made the SANCO companies into effective and dependable partners for window/facade manufacturers and architects alike, all over Europe. Impressive proof of creative glass architecture using SANCO insulating glass can be found in many cities in Europe: both in the integration of historic buildings into modern-day cityscapes and in elegant and light-flooded industrial and office buildings or in private ones.



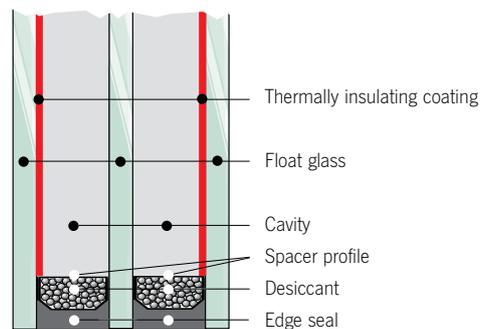
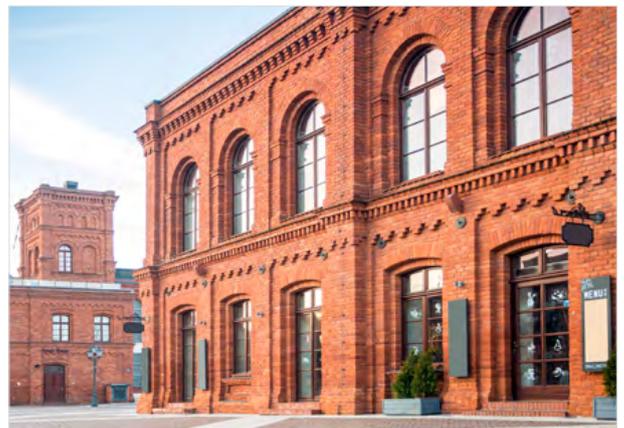
THERMAL INSULATION WITH **SANCO PLUS**

Modern means economical

Energy saving is more important than ever today. Apart from the need to save on heating costs, environmental concerns too make this a must. SANCO Plus thermal insulation glass caters to both requirements. Thanks to a highly effective coating in combination with a special gas filling, the heat loss to the outside is reduced considerably: SANCO Plus insulates up to 70 % more effectively than conventional 2-layer insulating glass.

SANCO Plus can, if required by the owners, be combined very easily with other SANCO functional glasses. That makes SANCO Plus ideal above all for modernizing older buildings.

It ensures not only a good Ug-value, but also high colour neutrality and lots of natural daylight in the room. The first choice when it comes to thermal insulation using glass.





The sun as an additional heat source

Energy-saving with SANCO Plus not only means “locking in the room heat” thanks to the thermal insulation glass, but also heat gains from the incident sunlight. Thanks to the positive heat gain, we also talk about a “heat trap”, since practically all the room’s heat is retained. What that boils down to is additional free heating. The result, particularly in winter and in the colder periods, is a positive energy balance around the windows. A real gain for the owners of conservatories too.

Glass type 	Glass structure	U _g -value to DIN EN 673	Light transmission to DIN EN 410	Total energy transmittance to DIN EN 410	Light reflection outside to DIN EN 410	Weight	Element thickness (Thickness tolerance acc. to glass structures)
	mm	W/m ² K	LT % (±2)	g-value % (±2)	LR % (±2)	kg/m ² (appr.)	mm (appr.)

SANCO Thermal insulation glass, double

SANCO Plus EN2	4 - 12AR - 4	1.3	82	64	12	20	20
SANCO Plus EN2	4 - 14AR - 4	1.1	82	64	12	20	22
SANCO Plus EN2	4 - 16AR - 4	1.1	82	64	12	20	24
SANCO Plus ZERO NG	4 - 16AR - 4	1.0	76	54	15	20	24
SANCO Plus FREE VISION T*	4 - 16AR - 4	1.0	78	54	13	20	24

SANCO Thermal insulation glass, triple

SANCO Plus EN2	4 - 12AR - 4 - 12AR - 4	0.7	74	53	14	30	36
SANCO Plus EN2	4 - 14AR - 4 - 14AR - 4	0.6	74	53	14	30	40
SANCO Plus EN2	4 - 18AR - 4 - 18AR - 4	0.5	74	53	14	30	48
SANCO Plus ZERO NG	4 - 16AR - 4 - 16AR - 4	0.5	65	41	22	30	44
SANCO Plus ZERO NG	4 - 12KR - 4 - 12KR - 4	0.4	65	41	22	30	36
SANCO Plus TRIII E	4 - 12AR - 4 - 12AR - 4	0.8	73	62	18	30	36
SANCO Plus TRIII E	4 - 16AR - 4 - 16AR - 4	0.7	73	62	18	30	44
SANCO Plus TRIII E	4 - 12KR - 4 - 12KR - 4	0.6	73	62	18	30	36
SANCO Plus FREE VISION T*	4 - 14AR - 4 - 14AR - 4	0.6	75	55	12	30	40

SANCO Plus coating on item 3 with 2-layer insulating glass, on items 2 and 5 with 3-layer insulating glass.

*SANCO Plus FREE VISION T coating on item 1, SANCO Plus EN2 coating on item 3 with 2-layer insulating glass, on items 3 and 5 with 3-layer insulating glass.

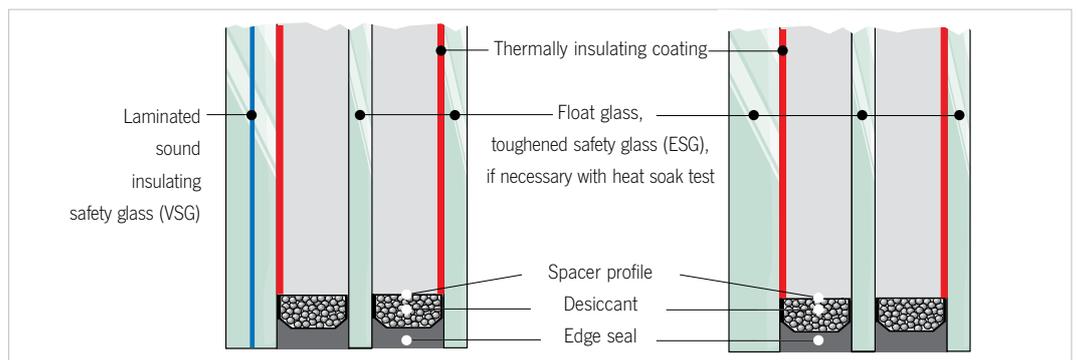
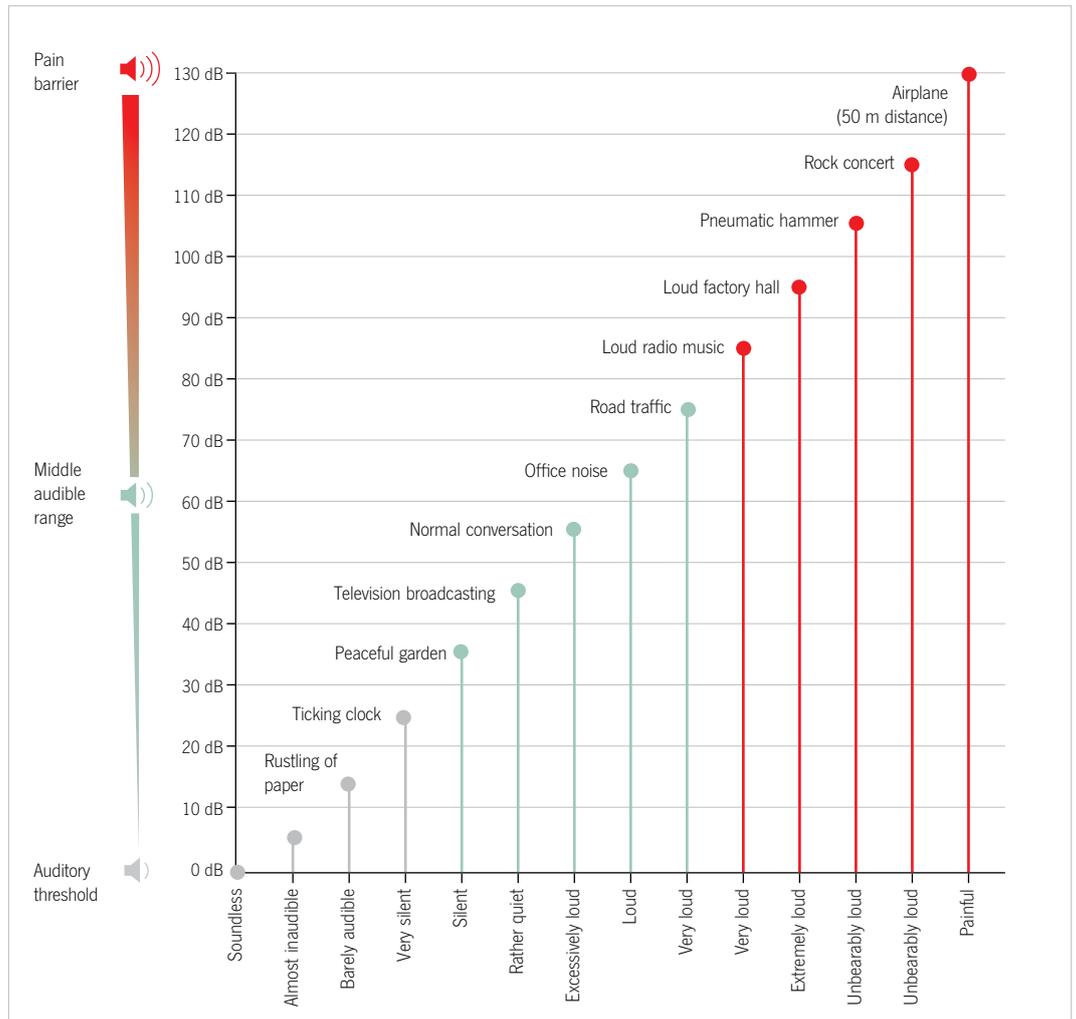
AR = Argon, KR = Krypton

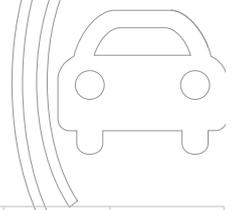


SOUND INSULATION WITH SANCO PHON

Excellent against noise

A problem of our hectic times that you can't fail to hear. Particularly in cities and conurbations or along main roads, relaxation and quiet is impossible to find. Psychic and physical disorders can often result from an intolerable noise level at home and at work. This problem can be effectively countered by using SANCO Phon sound insulation glass. SANCO Phon sound insulation glasses work like a "sound barrier". Laminated safety glass with a special sound-insulating film or with two layers of differing thickness and hence a different inherent frequency reduce the sound transmission considerably. SANCO Phon sound insulating glass can be combined with other functions, turning it into an effective multi-functional glass.





Glass type	Glass structure	U _g -value to DIN EN 673	Light transmission DIN EN 410	Total energy transmittance to DIN EN 410	Light reflection outside to DIN EN 410	Sound insulation value	Spectrum adjustment value
	mm	W/m ² K	LT % (±2)	g-value % (±2)	LR % (±2)	R _w in dB	C;C _{tr}

SANCO Sound insulation glass, double

SANCO Phon 36/24	6 - 14AR - 4	1,1	81	63	12	36	-1; -5
SANCO Phon 37/28	8 - 16AR - 4	1,1	80	61	12	37	-2; -6
SANCO Phon 38/28	10 - 14AR - 4	1,1	80	60	12	38	-2; -5
SANCO Phon 38/30	8 - 16AR - 6	1,1	80	61	12	38	-2; -6
SANCO Phon 40/32	10 - 16AR - 6	1,1	79	60	12	40	-2; -5
SANCO Phon 42/31	VSG 44.1 Phon - 16AR - 6	1,1	80	58	12	42	-3; -7
SANCO Phon 43/34	VSG 55.1 Phon - 16AR - 8	1,1	79	56	12	43	-2; -6
SANCO Phon 44/35	VSG 44.1 Phon - 16AR - 10	1,1	79	58	12	44	-2; -6
SANCO Phon 46/41	VSG 55.1 Phon - 20AR - 10	1,1	78	56	12	46	-1; -6
SANCO Phon 47/34	VSG 44.1 Phon - 12AR - VSG 66.1 Phon	1,3	78	57	12	47	-3; -8
SANCO Phon 49/36	VSG 44.1 Phon - 12AR - VSG 66.1 Phon	1,1	78	57	12	49	-2; -7
SANCO Phon 50/42	VSG 44.1 Phon - 12AR - VSG 66.1 Phon	1,1	78	57	12	50	-2; -7
SANCO Phon 51/46	VSG 88.2 Phon - 16AR - VSG 66.2 Phon	1,1	76	53	11	51	-1; -6

SANCO Sound insulation glass, triple

SANCO Phon 33/36	4 - 12AR - 4 - 12AR - 4	0,7	74	53	14	33	-2; -6
SANCO Phon 36/38	6 - 12AR - 4 - 12AR - 4	0,7	73	51	14	36	-2; -6
SANCO Phon 37/40	8 - 12AR - 4 - 12AR - 4	0,7	73	50	14	37	-1; -6
SANCO Phon 39/42	8 - 12AR - 4 - 12AR - 6	0,7	72	50	14	39	-2; -5
SANCO Phon 40/44	10 - 12AR - 4 - 12AR - 6	0,7	72	49	14	40	-1; -5
SANCO Phon 43/47	VSG 44.2 Phon - 14AR - 4 - 14AR - 6	0,6	72	48	14	43	-2; -7
SANCO Phon 45/53	8 - 16AR - 4 - 16AR - VSG 44.1 Phon	0,6	72	50	14	45	-3; -8
SANCO Phon 46/46	VSG 44.2 Phon - 12AR - 4 - 12AR - VSG 44.2 Phon	0,7	72	48	14	46	-1; -7
SANCO Phon 46/51	VSG 55.1 Phon - 12AR - 6 - 12AR - 10	0,7	70	47	14	46	-1; -5
SANCO Phon 47/50	VSG 44.2 Phon - 12AR - 6 - 12AR - VSG 55.2 Phon	0,7	71	48	14	47	-2; -7
SANCO Phon 50/54	VSG 66.2 Phon - 14AR - 4 - 14AR - VSG 44.2 Phon	0,6	71	46	14	50	-2; -6
SANCO Phon 51/55	VSG 66.2 Phon - 12AR - 6 - 12AR - VSG 66.2 Phon	0,7	69	46	14	51	-2; -6

SANCO Plus EN2 coating on item 3 with 2-layer insulating glass, on items 2 and 5 with 3-layer insulating glass.

To determine the element thickness, film thicknesses from 0.5 mm were rounded up to full millimeters.

Note: These films do not automatically have P2A approval.

AR = Argon





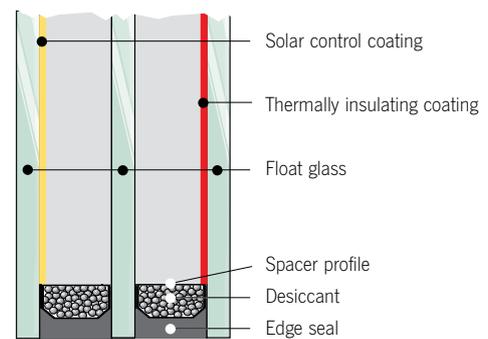
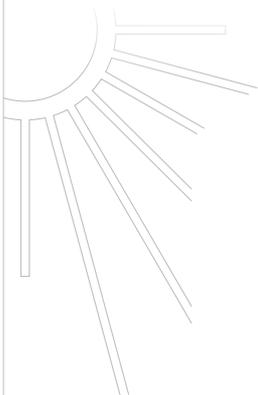
SOLAR CONTROL WITH **SANCO SUN**

Spacious openings

No to grey concrete monotony – yes to attractive glass facades. A trend that in recent years has helped to give both private and commercial properties new and individualized appearances. SANCO Sun gives architects and planners a new design latitude thanks to different colour nuances. Attractive effects are achieved by reflection.

In addition to splendid views, SANCO Sun also ensures – for large glazed surfaces in particular – that the amount of sunlight getting through to the room is considerably reduced. The result is less heat build-up. As a result, airconditioning systems can have smaller dimensions and the airconditioning costs can be reduced.

The SANCO range also includes neutral solar control glasses. An irresistible trend in facade design: spatial depth and design elements become visible.





Glass type	Glass structure	U _g -value to DIN EN 673	Light transmission to DIN EN 410	Total energy transmittance to DIN EN 410	Light reflection outside to DIN EN 410	Element thickness (Thickness tolerance acc. to glass structures)
	mm	W/m ² K	LT % (±2)	g-value % (±2)	LR % (±2)	mm (appr.)

SANCO Sun insulation glass, double

SANCO Sun COMBI 74/42	6 - 16AR - 4	1.0	74	42	13	26
SANCO Sun COMBI 70/35	6 - 16AR - 4	1.0	70	35	14	26
SANCO Sun COMBI 61/32	6 - 16AR - 4	1.0	61	34	14	26
SANCO Sun COMBI 60/27	6 - 16AR - 4	1.0	60	27	14	26
SANCO Sun COMBI 51/26	6 - 16AR - 4	1.0	51	27	16	26
SANCO Sun COMBI 41/21 T	6 - 16AR - 4	1.0	41	22	18	26
SANCO Sun COMBI Silver 32/21 T	6 - 16AR - 4	1.1	32	21	22	26
SANCO Sun WHITESHINE T	6 - 16AR - 4	1.1	59	49	35	26
SANCO Sun Neutral 50 T	6 - 16AR - 4	1.1	46	38	13	26
SANCO Sun Blue 50 T	6 - 16AR - 4	1.1	44	36	21	26
SANCO Sun Blue 30 T	6 - 16AR - 4	1.1	27	23	28	26
SANCO Sun Silver 20 T	6 - 16AR - 4	1.1	18	17	28	26

SANCO Sun insulation glass, triple

SANCO Sun COMBI 74/42	6 - 14AR - 4 - 14AR - 4	0,7	67	38	15	38
SANCO Sun COMBI 70/35	6 - 14AR - 4 - 14AR - 4	0,6	64	34	17	42
SANCO Sun COMBI 61/32	6 - 14AR - 4 - 14AR - 4	0,6	56	31	16	42
SANCO Sun COMBI 60/27	6 - 14AR - 4 - 14AR - 4	0,6	54	25	15	42
SANCO Sun COMBI 51/26	6 - 14AR - 4 - 14AR - 4	0,6	47	25	17	42
SANCO Sun COMBI 41/21 T	6 - 14AR - 4 - 14AR - 4	0,6	36	19	11	42
SANCO Sun WHITESHINE T	6 - 14AR - 4 - 14AR - 4	0,6	54	42	36	42
SANCO Sun Neutral 50 T	6 - 14AR - 4 - 14AR - 4	0,9	42	34	15	46
SANCO Sun Blue 50 T	6 - 14AR - 4 - 14AR - 4	0,9	41	32	22	46
SANCO Sun Blue 30 T	6 - 14AR - 4 - 14AR - 4	0,8	25	20	29	46
SANCO Sun Silver 20 T	6 - 14AR - 4 - 14AR - 4	0,8	17	15	28	46

SANCO Sun coating on item 2 and SANCO Plus EN2 coating on item 3.

SANCO Sun COMBI coating on item 2 and SANCO Plus EN2 coating on item 5 with 3-layer insulating glass.

SANCO Sun WHITESHINE coating on item 2 and SANCO Plus EN2 coating on item 3 with 2-layer insulating glass, on items 3 and 5 with 3-layer insulating glass. Cannot be thermally tempered.

AR = Argon

T = thermally toughened due to high absorption





SAFETY WITH SANCO SAFE

Self-confident protection

Even with masses of glass, there is no need to compromise on safety. Effective protection from break-ins and injury risks at home and in the workplace: SANCO Safe safety glass. When shop windows are glazed using SANCO Safe laminated safety glass, the pane remains in the frame even after an attempted break-in. No opening is created to climb through. Further damage from casual criminals is prevented. Not only the classic break-in is important here, but also vandalism, which has been greatly on the increase recently.

SANCO Safe provides protection not only from break-ins. All requirements placed by building authorities on overhead glazing and fall-secured glazing in homes, conservatories and public buildings

can be met with SANCO Safe safety glasses. This makes it ideal for use in new buildings and in renovation work. The combination with additional functions results in multi-functional insulating glass.



Glass type		Glass structure	U _g -value to DIN EN 673	Light transmission to DIN EN 410	Total energy transmittance to DIN EN 410	Light reflection outside to DIN EN 410	Element thickness (Thickness tolerance acc. to glass structures)
		mm	W/m ² K	LT % (±2)	g-value % (±2)	LR % (±2)	mm (appr.)

SANCO Safe insulation glass with throw-through resistance and breakthrough resistance to DIN EN 356

SANCO Safe P1A	9 - 16AR - 4						29
SANCO Safe P2A	9 - 16AR - 4						29
SANCO Safe P3A	9 - 16AR - 4						29
SANCO Safe P4A	10 - 16AR - 4						30
SANCO Safe P5A	13 - 16AR - 4						33
SANCO Safe P6B	23 - 16AR - 6						45
SANCO Safe P7B	24 - 16AR - 6						47
SANCO Safe P8B	29 - 16AR - 6						51

U_g-value, g-values, LT- and LR-values depending on the coating used.

SANCO Safe insulation glass with bullet resistance to DIN EN 1063

SANCO Safe BR 1-S							26
SANCO Safe BR 1-NS							30
SANCO Safe BR 2-S							33
SANCO Safe BR 2-NS							40
SANCO Safe BR 3-S							33
SANCO Safe BR 3-NS							46
SANCO Safe BR 4-S							39
SANCO Safe BR 4-NS							56
SANCO Safe BR 5-S							47
SANCO Safe BR 5-NS							62
SANCO Safe BR 6-S							54
SANCO Safe BR 6-NS							76
SANCO Safe BR 7-S							79
SANCO Safe BR 7-NS							92

U_g-value, g-values, LT- and LR-values depending on the coating used.

Element thicknesses are manufacturer-specific approximate values, AR = argon, S = Split, NS = Non Split.

SHADE WITH SANCO CONTROL

Optimum light conditions

Light is a part of nature. Man needs optimum light conditions for his many different activities. Above all in rooms. This is where he needs to concentrate, whether he is learning, working or at play. So he needs for his well-being different brightness settings. These can be obtained with SANCO CONTROL, adjusted to individual needs.

The blinds system allows at all times, thanks to infinitely variable regulation, the right balance between light incidence and required light conditions. SANCO CONTROL is accommodated in the cavity of the insulating glass. Dust and dirt particles cannot diminish the smart impression made by the blinds.

Overview of functions SANCO CONTROL	Cavity	Louvre	Pleated blinds	Turn	Raising/ lowering	Motor	Dimensions width	Dimensions height
SL 20 22C Louvre	20/22	12.5		■	■	Outside	300/2000	300/2500
SL 27 32C Pleated blinds	27/32		20		■	Outside	300/2200	300/2500
SL 27 32C Pleated blinds Blackout	27/32		20		■	Outside	300/2500	300/2600
SL 27C Blinds	27				■	Outside	250/1200	300/*
SL 20 22MB Louvre	20/22	12.5		■	■	Inside	300/2000	300/2500
SL 20 22MB Pleated blinds	20/22		14		■	Inside	300/1500	300/2500
SL 27MB Louvre	27	16		■	■	Inside	480/3000	300/3000
SL 27 32MB Pleated blinds	27/32		20		■	Inside	420/2200	300/2500
SL 27 32MB Pleated blinds Blackout	27/32		20		■	Inside	420/2500	300/2600

C = System pullcord, M = System Motor, all information is given in mm. *depending on material. Excerpt from the SANCO insulating glass range.

STRUCTURAL USE OF GLASS

Contemporary architecture is continually creating ever more impressive working and living concepts where glass is frequently used as the load-bearing component. It is the high functionality and incomparable aesthetic appearance of glass that favours its use for facades and interiors. Whether it's in glass roof systems, glass stairways, all-glass showers, balustrades, or sliding or revolving doors - the bright, light and transparent atmosphere is striking. SANCO offers here customized solutions that are not just persuasive in their design potential, but also conform to all safety-relevant aspects and building authorities' requirements.

- SANCO Point holder** For roofs and walls
- SANCO ROOF** Roof system
- SANCO POINT** For balustrades, landings and panels
- SWISSSTEP** Stairway system
- SWISSWALL** For glass facades
- SANCO** All-glass showers
- SANCO** Door and partition wall structures



GLASS CAN BE MORE!



The technical data listed conforms to the current values at the time of going to print and can alter without prior notice. The technical values are based on the suppliers' information or were ascertained in the course of tests by an independent testing institution in accordance with the respectively valid standards. The function values are based only on test specimens in the dimensions provided for testing. No further guarantee for technical values shall be accepted, in particular if tests are performed in other installation situations or if subsequent measurements are obtained in the building. During installation, the current version of the SANCO glazing guidelines must be followed without fail.

Technical values were computed using glACE. U_g -value according to DIN EN 673 for vertical installation determined. For dimensional tolerances and production possibilities see SANCO Tolerance Manual and in consultation with the respective manufacturer. Attention! By changing the glass thicknesses and interpane spaces, the technical values change. Excerpt from the SANCO Insulating glass range.

The current data status is available at www.sanco.de.
SANCO is a trademark. Date: 08/2021

You can get detailed information from your local SANCO partner.