



PREMIUM GLASS FOR PREMIUM SOUND REDUCTION.



Raunheim Town Hall, design: ISOLAR AKUSTEX® advance //, 45 dB, photo: © Arnold Glas

ISOLAR AKUSTEX® combines the unique properties of the transparent material glass with the option of effective sound reduction. The principles of sound reduction using glass are very simple. It is achieved using different assembly types, depending on the requirements:

- Thicker panes (high mass)
- Different thicknesses of glass (asymmetrical assembly)
- Increased distance between the panes
- Acoustic laminated safety glass with acoustic film

PLANNING IS HALF THE WAY TO EASE.

Optimal passive sound reduction is a planning task for the whole building. Not only do the sound reduction performances of individual building materials need to be considered, but also how they interact with each other. In addition, the type of sound plays a major role. Every sound spectrum consists of many frequencies with a different noise level.

It's important to have good sound reduction where the levels are particularly high, depending on the source of the noise. To achieve a considerably better result than heat-insulating glass, normally sound reduction glass with an asymmetric assembly is sufficient. Further improved results, particularly in the low frequency ranges, can be achieved with glass assemblies using acoustic laminated

safety glass. The extensive range of products for windows and façades means there is the right glass for every situation, for example with regard to sound reduction and overall thickness of the glass.

HOW TO ACHIEVE MAXIMUM EASE.

The key to sound reduction is the glass assembly, with the optimum combinations of measures listed above. ISOLAR AKUSTEX® with acoustic laminated safety glass is suitable for a high level of sound reduction. This is fitted with “acoustic films” which are technically optimised for sound reduction. The highest level of sound reduction is achieved with glass assemblies which feature two panes of acoustic laminated safety glass. ISOLAR AKUSTEX® triple sound reduction glass combines the principles of sound reduction using glass with those of triple heat-insulating glass. The rule of thumb is: While the outer and inner panes determine the level of sound insulation, the middle pane is less important when it comes to sound reduction.

QUALITY YOU CAN HEAR.

ISOLAR AKUSTEX® sound reduction glass achieves sound reduction indices of 26 dB to around 54 dB. High-performance heat insulation coatings make it a full heat-insulating glass too. The special gas filling between the panes serves to sound reduction and heat insulation.

ISOLAR AKUSTEX® // SOUND REDUCTION GLASS

AKUSTEX advance 34 //	Glass assembly	Thickness *) in mm	Weight *) in kg/m ²	U _g (DIN EN 673) in W/m ² K	Sound reduction (DIN EN ISO 140-3 / 717-1) R _w in dB	Spectrum adaptation value ²⁾ C, C _r	Light transmission (DIN EN 410) in % (±2)	Solar factor ¹⁾ g value (DIN EN 410) in % (±2)
25.36	6 / 15 / :4	25	25	1,1	36	(-2, -5)	81	62
27.37	8 / 15 / :4	27	30	1,1	37	(-1, -5)	80	61
30.39	10 / 16 / :4	30	35	1,1	39	(-2, -6)	80	59

ISOLAR AKUSTEX® // AF SOUND REDUCTION GLASS

AKUSTEX advance 34 //	Glass assembly	Thick-ness *) in mm	Weight *) in kg/m ²	U _g (DIN EN 673) in W/m ² K	Sound reduction (DIN EN ISO 140-3 / 717-1) R _w in dB	Spectrum adaptation value ²⁾ C, C _v	Light transmission (DIN EN 410) in % (±2)	Solar factor ¹⁾ g value (DIN EN 410) in % (±2)
AF 29.39	44.2 / 16 / :4	29	30	1,1	39	(-1, -5)	80	58
AF 30.42	44.1 / 16 / :6	30	35	1,1	42	(-2, -6)	80	58
AF 35.43	55.2 / 16 / :8	35	47	1,1	43	(-2, -6)	78	56
AF 36.44	44.1 / 20 / :8	36	40	1,1	44	(-3, -8)	79	58
AF 34.45	44.1 / 16 / :10	34	46	1,1	45	(-2, -7)	78	58
AF 38.47	66.2 / 16 / :44.2	38	50	1,1	47	(-2, -6)	78	55
AF 42.47	44.1 / 24 / :10	42	45	1,2	47	(-2, -7)	78	58
AF 42.49	66.2 / 20 / :44.2	42	51	1,1	49	(-2, -7)	78	55
AF 46.50	88.2 / 20 / :44.2	46	62	1,1	50	(-1, -6)	77	52
AF 46.51	68.1 / 24 / :44.1	46	56	1,1	51	(-2, -6)	77	54
AF 46.51	88.2 / 16 / :66.2	46	72	1,1	51	(-1, -5)	75	52
AF 49.52	86.2 / 24 / :46.2	49	62	1,1	52	(-2, -6)	77	53
AF 60.54	108.2 / 29 / :66.2	60	77	1,2	54	(-2, -5)	75	51

ISOLAR AKUSTEX® /// SOUND REDUCTION GLASS

				advance 34 ///	ensolar ///			advance 34 ///	ensolar ///	advance 34 ///	ensolar ///
38.36	6: / 12 / 4 / 12 / :4	38	35	0,7	0,8	36	(-2, -6)	73	73	51	61
40.37	8: / 12 / 4 / 12 / :4	40	40	0,7	0,8	37	(-1, -6)	73	73	50	60
42.37	6: / 12 / 4 / 16 / :4	42	36	0,6	0,7	37	(-2, -6)	73	73	51	60
40.38	6: / 10 / 4 / 16 / :4	40	35	0,7	0,8	38	(-2, -6)	73	73	51	60
42.38	6: / 14 / 4 / 14 / :4	42	35	0,6	0,7	38	(-2, -7)	73	73	51	61
42.39	8: / 12 / 4 / 12 / :6	42	45	0,7	0,8	39	(-2, -5)	72	72	50	60
46.41	8: / 16 / 4 / 12 / :6	46	46	0,6	0,7	41	(-2, -6)	72	72	50	60
44.42	10: / 12 / 4 / 12 / :6	44	51	0,7	0,8	42	(-1, -4)	72	72	49	58
46.43	10: / 12 / 4 / 12 / :8	46	55	0,7	0,8	43	(-2, -5)	71	71	49	58

ISOLAR AKUSTEX® /// AF SOUND REDUCTION GLASS

				advance 34 ///	ensolar ///			advance 34 ///	ensolar ///	advance 34 ///	ensolar ///
AF 43.42	6: / 12 / 4 / 12 / :44.1	43	45	0,7	0,8	42	(-2, -7)	72	72	51	60
AF 45.43	8: / 12 / 4 / 12 / :44.1	45	51	0,7	0,8	43	(-3, -8)	72	72	50	59
AF 47.46	10: / 12 / 4 / 12 / :44.1	47	56	0,7	0,8	46	(-1, -5)	71	71	49	58
AF 49.47	44.2: / 14 / 4 / 14 / :44.2	49	51	0,6	0,7	47	(-2, -7)	72	72	48	57
AF 50.47	10: / 16 / 4 / 12 / :44.1	50	56	0,6	0,7	47	(-1, -5)	71	71	49	58
AF 51.49	66.2: / 12 / 6 / 12 / :44.2	51	66	0,7	0,8	49	(-2, -6)	70	70	46	55
AF 54.50	66.2: / 14 / 4 / 14 / :44.2	54	62	0,6	0,7	50	(-2, -6)	70	71	46	55

Other types on request. Dimensions in accordance with the current valid price list. The addition "advance 34" or "ensolar" refers to the coating. Combination with other coatings on request. Type code: 1st Number = overall thickness in mm, 2nd number = sound reduction R_w in dB, 1) The value depends on the position of the coating(s) 2) "Spectrum adaptation values" are used for adaptation of the sound reduction index to other sources of noise e.g. traffic noise. All ISOLAR SOLARLUX® sound protection glass can be fitted with thermally enhanced edge seal system (Warm Edge) on request. 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! In case of ISOLAR AKUSTEX® // with an edge length less than 500 mm, the thinner pane should be thermally toughened safety glass; in case of ISOLAR AKUSTEX® /// with an edge length less than 700 mm, the thinner of the outer panes should be thermally toughened safety glass. 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_g 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/m²K is possible.
*) tolerance dependent on type

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.



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