





Product	Run. No.	Glass type	Glass assembly	U _g (DIN EN 673) in W/m ² K	Light transmission*) (DIN EN 410) in % (±2)	Solar factor*) g value (DIN EN 410) in % (±2)	Light reflexion*) (DIN EN 410) in % (±2)	Sound insulation (DIN EN ISO 140-3/717-1) R _w in dB	Resistance class*)	Thickness**) in mm	Weight**) in kg/m ²	Notes and other product options. Please observe static calculations as per relevant requirements!						
 ISOLAR NEUTRALUX[®] Heat insulating glass	1.01	advance 34 // 1,1	uno // 1,0	4 / 15-16 / :4	advance 34 // Ar Kr 1,1 1,0	uno // Ar Kr 1,0 1,0	advance 34 // 82	uno // 70	advance 34 // 64 ¹⁾	uno // 50	advance 34 // 12	uno // 22	32	-	23-24	20	<p>Type key Numeral 1 = U_g value (DIN EN 673, ΔT = 15K, in W/m²K) Tolerances of ± 1,5 mm in the thickness range depend on type.</p> <p>Max. dimensions as per respective, valid price list.</p> <p>ISOLAR glass with Georgian bars:</p> <ul style="list-style-type: none"> Installation of different Georgian bars is possible for almost all function glasses inside space between panes. Ask about the great variety of bar layouts at your ISOLAR specialist. Lead glazing in classic and modern styles. <p>¹⁾ When outer pane float extra: solar factor = 65 % ²⁾ When outer and inner pane float extra: light transmission = 75 % ³⁾ For the Production of ISOLAR NEUTRALUX leicht /// thermally toughened glasses are required.</p>	
	1.02	1,3	1,2	4 / 12 / :4	1,3 1,0	1,2 0,9	82	70	64 ¹⁾	50	12	22	30	-	20	20		
	1.03	1,0 (duo)	-	4: / 15-16 / :4	1,0 -	- -	81	-	57	-	8	-	32	-	23-24	20		
	1.04		uno /// 0,4	4: / 12 / 4 / 12 / :4		uno /// 0,7 0,4		uno /// 55		uno /// 35		uno /// 32		32	-	36		30
	1.05	0,5	0,6	4: / 18 / 4 / 18 / :4	0,5 0,5	0,6 0,6	74 ²⁾	73	53	62 62	14	16	32	-	48	30		
	1.06	0,6	0,7	4: / 16 / 4 / 16 / :4	0,6 0,5	0,7 0,6	74 ²⁾	73	53	62 62	14	16	32	-	44	30		
	1.07	0,6	0,7	4: / 14 / 4 / 14 / :4	0,6 0,5	0,7 0,6	74 ²⁾	73	53	62 62	14	16	32	-	40	30		
	1.08	0,7	0,8	4: / 12 / 4 / 12 / :4	0,7 0,5	0,8 0,6	74 ²⁾	73	52	62 62	14	16	32	-	36	30		
	1.09	0,8	0,9	4: / 10 / 4 / 10 / :4	0,8 0,5	0,9 0,6	74 ²⁾	73	52	62 62	14	16	32	-	32	30		
	1.10	1,0	1,1	4: / 8 / 4 / 8 / :4	1,0 0,6	1,1 0,7	74 ²⁾	73	52	62 62	14	16	31	-	28	30		
	1.11	0,5	-	3: / 18 / 2 / 18 / :3 ³⁾	0,5 -	0,6 -	75	73	54	62 -	15	17	-	-	44	20		
	1.12	0,5	0,6	3 / 18 / :3 / 18 / :3 ³⁾	0,5 -	0,6 -	75	73	56	65 -	15	17	-	-	45	23		
 ISOLAR AKUSTEX[®] Sound insulating glass	2.01	25.36	6 / 15 / :4	1,1	81	62	12	36	-2 -5	-	25	25	<p>Type key Numeral 1 = pane thickness (mm) Numeral 2 = sound insulation R_w (dB)</p> <p>In the case of ISOLAR AKUSTEX units with an edge length below 500 mm, the thinner pane should be of toughened safety glass.</p> <p>The abbreviation AF before the type key codes indicates sound insulating laminated glass.</p> <p>Sound insulation values of ISOLAR AKUSTEX types with space between the panes of 15 or 16 mm are the same.</p> <p>Max. dimensions 2400 x 1410 mm with 4 mm inner pane; 3000 x 2000 mm with 6 mm inner pane and laminated glass.</p> <p>The „spectrum adaptation values“ are used to adjust the weighted sound insulation values to other noise sources, e.g.: traffic noise.</p>					
	2.02	27.37	8 / 15 / :4	1,1	80	61	11	37	-1 -5	-	27	30						
	2.03	AF 29.39	4.4 / 16 / :4	1,1	80	58	11	39	-1 -5	-	29	30						
	2.04	30.39	10 / 16 / :4	1,1	80	59	11	39	-2 -6	-	30	35						
	2.05	AF 30.42	4.4 / 16 / :6	1,1	80	58	11	42	-2 -6	-	30	35						
	2.06	AF 35.43	5.5 / 16 / :8	1,1	78	56	11	43	-2 -6	-	35	47						
	2.07	AF 36.44	4.4 / 20 / :8	1,1	79	58	11	44	-3 -8	-	36	40						
	2.08	AF 34.45	4.4 / 16 / :10	1,1	78	58	11	45	-2 -7	-	34	46						
	2.09	AF 38.47	6.6 / 16 / :4.4	1,1	78	55	11	47	-2 -6	-	38	50						
	2.10	AF 42.47	4.4 / 24 / :10	1,2	78	58	11	47	-2 -7	-	42	45						
	2.11	AF 42.49	6.6 / 20 / :4.4	1,1	78	55	11	49	-2 -7	-	42	51						
	2.12	AF 46.50	8.8 / 20 / :4.4	1,1	77	52	11	50	-1 -6	-	46	62						
	2.13	AF 46.51	6.8 / 24 / :4.4	1,1	77	54	11	51	-2 -6	-	46	56						
	2.14	AF 46.51	8.8 / 16 / :6.6	1,1	75	52	11	51	-1 -5	-	46	72						
	2.15	AF 49.52	8.6 / 24 / :4.6	1,1	77	53	11	52	-2 -6	-	49	62						
	2.16	AF 60.54	10.8 / 29 / :6.6	1,2	75	51	11	54	-2 -5	-	60	77						
	2.17	38.36	6: / 12 / 4 / 12 / :4	0,7 0,8	73 73	51 61	14 16	36 -2 -6	-	38	35							
	2.18	40.37	8: / 12 / 4 / 12 / :4	0,7 0,8	73 73	50 60	14 16	37 -1 -6	-	40	40							
	2.19	42.37	6: / 12 / 4 / 16 / :4	0,6 0,7	73 73	51 60	14 16	37 -2 -6	-	42	36							
	2.20	40.38	6: / 10 / 4 / 16 / :4	0,7 0,8	73 73	51 60	14 16	38 -2 -6	-	40	35							
	2.21	42.38	6: / 14 / 4 / 14 / :4	0,6 0,7	73 73	51 61	14 16	38 -2 -7	-	42	35							
	2.22	42.39	8: / 12 / 4 / 12 / :6	0,7 0,8	72 72	50 60	14 16	39 -2 -5	-	42	45							
2.23	46.41	8: / 16 / 4 / 12 / :6	0,6 0,7	72 72	50 60	14 16	41 -2 -6	-	46	46								
2.24	AF 43.42	6: / 12 / 4 / 12 / :4.4	0,7 0,8	72 72	51 60	14 16	42 -2 -7	-	43	45								
2.25	44.42	10: / 12 / 4 / 12 / :6	0,7 0,8	72 72	49 58	14 16	42 -1 -4	-	44	51								
2.26	46.43	10: / 12 / 4 / 12 / :8	0,7 0,8	71 71	49 58	14 16	43 -2 -5	-	46	55								
2.27	AF 45.43	8: / 12 / 4 / 12 / :4.4	0,7 0,8	72 72	50 59	14 16	43 -3 -8	-	45	51								
2.28	AF 47.46	10: / 12 / 4 / 12 / :4.4	0,7 0,8	71 71	49 58	14 16	46 -1 -5	-	47	56								
2.29	AF 49.47	4.4: / 14 / 4 / 14 / :4.4	0,6 0,7	72 72	48 57	14 16	47 -2 -7	-	49	51								
2.30	AF 50.47	10: / 16 / 4 / 12 / :4.4	0,6 0,7	71 71	49 58	14 16	47 -1 -5	-	50	56								
2.31	AF 51.49	6.6: / 12 / 6 / 12 / :4.4	0,7 0,8	70 70	46 55	14 15	49 -2 -6	-	51	66								
2.32	AF 54.50	6.6: / 14 / 4 / 14 / :4.4	0,6 0,7	70 71	46 55	14 15	50 -2 -6	-	54	62								
 ISOLAR SOLARLUX[®] Sun control glass	3.01	A 70	70.37	63.34	1,0	0,7	70	63	37	34	13	15	36	-	<p>Type key Numeral 1 = light transmission (%) Numeral 2 = solar factor (%)</p> <p>For all ISOLAR SOLARLUX solar control glasses, panel elements are available for use as cold or as hot panels.</p> <p>For all structural glazing elements in façades and overhead glasswork almost all ISOLAR functional glazing can be manufactured as ISOLAR UVR (insulating glass with UV-resistant edge seal system).</p> <p>Since in the case of ISOLAR SOLARLUX variolar the solar control can be varied, its performance capability results from the comparison of its light transmission in transparent condition with the energy transmission when tinted. ISOLAR SOLARLUX variolar only needs an electricity supply to vary the transmittance.</p> <p>Other ISOLAR SOLARLUX types are available on request.</p> <p>Luminous and solar performances of ISOLAR SOLARLUX micro solar depend on position of the sun. ISOLAR SOLARLUX micro solar is produced using MicroShade™, a product of the supplier PhotoSolar A/S.</p> <p>Max. dimensions as per respective, valid price list.</p> <p>¹⁾ Additional Low-E coating on Level 3. ²⁾ Additional Low-E coating on Level 3, middle pane is thermally toughened. ³⁾ Other designs available on request. ⁴⁾ Value changes dependent on position of the sun during the day and the year. ⁵⁾ Outer pane thermally toughened safety glass.</p> <p>ISOLAR SOLARLUX variodirect (Venetianblinds inside cavity): Type E+ME: raising/lowering/turning; Type W: turning (overhead); Type F: rigid blind system. Glass thickness and max. dimensions on request for individual cases.</p>			
	3.02	A 60	61.33	56.31	1,0	0,7	61	56	33	31	14	16	36	-				
	3.03	A 50	53.28	48.26	1,0	0,7	53	48	28	26	18	19	36	-				
	3.04	A 40	43.23	39.21	1,0	0,7	43	39	23	21	22	23	36	-				
	3.05	platin	71.42	64.38	1,1	0,7	71	64	42	38	11	13	36	-				
	3.06	neutral	61.34	56.31	1,0	0,7	61	56	34	31	14	16	36	-				
	3.07	silver-light	57.47 ¹⁾	53.40 ²⁾	1,1	0,7	57	53	47	40	35	37	36	-				
	3.08	D 50	50.33	45.29	1,1	0,7	50	45	33	29	30	31	36	-				
	3.09	silver	40.21	36.19	1,0	0,7	40	36	21	19	33	33	36	-				
	3.10	silver-blue	37.27 ¹⁾	34.23 ²⁾	1,1	0,7	37	34	27	23	18	18	36	-				
3.11	variolar //			9VG / 16 / :4	1,1	-	55-10	-	41-10	-	11-7	-	35	-	29	32		
3.12	variolar ///			9VG / 12 / :4 / 12 / :4 ²⁾	-	0,7	-	51-9	-	36-8	-	12-7	-	41	42			
3.13	micro solar //	Design:		4 / 16 / :4 ⁴⁾	1,1	-	50	-	41-4 ⁴⁾	-	-	-	-	-	24	20		
3.14	micro solar ///	MS-A ³⁾		4 / 12 / :4 / 12 / :4 ²⁾ 4 ⁵⁾	-	0,7	-	45	-	36-2 ⁴⁾	-	-	-	36	30			
3.15	variorect //	E, ME		6 / 27-29 / :6	1,2	-	80	-	62	-	-	-	-	-	39/41	30		
3.16	variorect //	F		6 / 27-29 / :6	1,2	-	80	-	62	-	-	-	-	-	39/41	30		
3.17	variorect //	W		6 / 27 / :6	1,2	-	80	-	62	-	-	-	-	-	39	30		
 ISOLAR VISOREX[®] Light use/privacy with glass	4.01	white //	58.44	4 / v / 4 / 16 / :4	1,1	-	58	-	44	-	36	-	32	-	27-28	20		
	4.02	white //	47.37	4 / w / 4 / 16 / :4	1,1	-	47	-	37	-	48	-	32	-	27-28	20		

Product	Run. No.	Glass type (Mono-types without coating)	Glass assembly	U _g (DIN EN 673) in W/m²K	Resistance class*) (DIN EN 356/1063)	Resistance class*) Windows (DIN EN 1627/DIN EN 1522)	Light transmission*) (DIN EN 410) in % (±2)	Solar factor*) g value (DIN EN 410) in % (±2)	Light reflexion (DIN EN 410) in % (±2)	Thickness**) in mm	Weight**) in kg/m²	Notes and other product options. Please observe static calculations as per relevant requirements!	
ISOLAR MULTIPACT® P1A - P5A Resistance against manual attack (DIN EN 356)	5.01	advance 34 //	mono									Typical protection use: Family and apartment houses in residential areas, remote individual houses, exclusive residential properties, holiday and weekend cottages. The following applies to the entire ISOLAR MULTIPACT product range: The thicker the glass assembly, the more noticeable the glass's inherent colour becomes, so it is recommended to use glass products with a particularly low inherent colour. All ISOLAR MULTIPACT types can also be supplied as triple safety glass. Max. dimension 4000 X 2600 mm, or 500 kp/unit.	
	5.02	—	8 P1A	8	5,5	P1A	—	89	78	8	8		20
	5.03	—	8 P2A	8	5,5	P2A	—	89	78	8	8		20
	5.04	—	9 P3A	9	5,4	P3A	—	89	77	8	9		21
	5.05	—	9 P4A	9	5,4	P4A	RC 2	89	77	8	9		21
	5.06	—	10 P5A	10	5,3	P5A	RC 3	89	76	8	10		22
	5.07	27 P1A	—	4: / 15-16 / 8	1,1	P1A	—	80	60	12	27		31
	5.08	27 P2A	—	4: / 15-16 / 8	1,1	P2A	—	80	60	12	27		31
	5.09	28 P3A	—	4: / 15-16 / 9	1,1	P3A	—	80	60	12	28		32
	5.10	28 P4A	—	4: / 15-16 / 9	1,1	P4A	RC 2	80	60	12	28		33
	29 P5A	—	4: / 15-16 / 10	1,1	P5A	RC 3	80	60	12	29	33		
ISOLAR MULTIPACT® P6B - P8B Resistance against manual attack (DIN EN 356)	6.01	advance 34 //	mono									Typical protection use: Exclusive residential properties containing valuables, photo, electronic and video shops, IT installations, certain areas of department stores, antique shops, museums, art galleries, psychiatric facilities, furriers, jewellers, power plants, prisons, pharmacies etc.	
	6.02	—	15 P6B	15	5,1	P6B	RC 4	87	72	8	15		34
	6.03	—	20 P7B	20	4,9	P7B	RC 5	86	69	8	20		45
	6.04	—	29 P8B	29	4,5	P8B	RC 6	83	63	8	29		67
	6.05	31 P6B	—	6: / 10 / 15	1,4	P6B	RC 4	78	58	11	31		49
	6.06	36 P7B	—	6: / 10 / 20	1,4	P7B	RC 5	77	57	11	36		60
	45 P8B	—	6: / 10 / 29	1,4	P8B	RC 6	75	57	11	45	82		
ISOLAR MULTIPACT® BR1 - BR7 Bullet resistant (DIN EN 1063)	7.01	advance 34 //	mono									ISOLAR MULTIPACT BR1-BR7 Bullet-resistant, tested as per DIN EN 1063 S = no penetration, splinters NS = no penetration, no splinters Typical protection use: Buildings and facilities for police forces, the Army; politicians, members of the judiciary and business people at risk of attacks; banks and cash rooms etc. For many ISOLAR MULTIPACT types, a combination of heat insulating and solar control glass as well as toughened or patterned glass is possible. Alarm triggering by toughened safety glass available as per corresponding VdS approval in models: ISOLAR MULTIPACT alarm covered or ISOLAR MULTIPACT alarm visible . Available in addition, ISOLAR MULTIPACT SG1 + SG2 (bullet resistant acc. to DIN EN 1063), ISOLAR MULTIPACT ER (explosion-resistant glazing acc. to DIN EN 13 541), as well as ISOLAR MULTIPACT S (post offices, bank tellers, protection against climbing over).	
	7.02	—	30 BR2-S	mono	4,8	BR2-S + P6B + P7B	FB2	82	63	8	30		73
	7.03	—	33 BR2-NS	mono	4,7	BR2-NS	FB2	82	62	8	33		80
	7.04	—	31 BR3-S	mono	4,7	BR3-S + P7B	FB3	82	62	8	31		74
	7.05	—	35 BR4-S	mono	4,6	BR4-S	FB4	81	60	8	35		85
	7.06	—	46 BR4-NS	mono	4,4	BR4-NS	FB4	78	56	7	46		110
	7.07	—	74 BR6-S	mono	4,2	BR6-S	FB6	69	49	7	74		178
	7.08	24 BR1-S	—	ISO	1,4	BR1-S	FB1	80	56	11	24		35
	7.09	27 BR1-NS	—	ISO	1,4	BR1-NS	FB1	79	54	11	27		42
	7.10	34 BR2-S	—	ISO	1,4	BR2-S	FB2	77	50	11	34		56
	7.11	39 BR2-NS	—	ISO	1,4	BR2-NS	FB2	75	49	11	39		72
	7.12	33 BR3-S	—	ISO	1,4	BR3-S	FB3	78	55	11	33		53
	7.13	51 BR3-NS	—	ISO	1,3	BR3-NS	FB3	73	45	11	51		94
	7.14	41 BR4-S	—	ISO	1,4	BR4-S	FB4	75	54	11	41		73
	7.15	55 BR4-NS	—	ISO	1,3	BR4-NS	FB4	71	43	10	55		108
	7.16	44 BR5-S	—	ISO	1,4	BR5-S	FB5	75	48	11	44		81
	7.17	65 BR5-NS	—	ISO	1,3	BR5-NS	FB5	69	42	10	65		132
	7.18	52 BR6-S	—	ISO	1,3	BR6-S	FB6	73	46	11	52		97
	7.19	73 BR6-NS	—	ISO	1,3	BR6-NS	FB6	67	41	10	73		148
	7.20	88 BR7-S	—	ISO	1,3	BR7-S	FB7	64	39	10	88		183
	88 BR7-NS	—	ISO	1,3	BR7-NS	FB7	63	38	10	88	187		
ISOLAR MULTIPACT® EH Classification in accordance with VDS	8.01	mono										Typical protection use: Similar to ISOLAR MULTIPACT PA or PB . Need for application depending on insurance cover as per the security guidelines of insurance companies. All EH types are approved by VdS. Many ISOLAR MULTIPACT ISO types with the appropriate installation modifications can be supplied with higher performance heat insulation up to 1,1 W/m²K.	
	8.02	11 EH 01	mono	5,4	—	—	89	76	8	10	23		
	8.03	12 EH 02	mono	5,3	—	—	89	75	8	11	23		
	8.04	24 EH 1	mono	4,8	—	—	84	66	8	24	55		
	8.05	23 EH 2	mono	4,7	—	—	85	66	8	23	52		
	40 EH 3	mono	4,4	—	—	79	58	7	40	96			
ISOLAR ORNILUX® Bird protection glass	9.01	mikado mono	VG 4: / 4 / :4	5,3	—	—	84	71	11	13	30	ISOLAR ORNILUX is the first bird protection glass worldwide which has shown improved perception by birds in extensive tests carried out by recognised ornithological institutes in Germany and in the USA. It can be used the same as conventional glass. Other combinations on request. 1) Outer pane is thermally toughened.	
	9.02	mikado mono	VG 12: / 12 / :12	4,7	—	—	76	57	10	37	90		
	9.03	mikado uno // 1,0	6: / 16 / :VSG 8	1,0	—	—	66	47	24	30	35		
	9.04	mikado advance 34 // 1,1	4: / 16 / :VSG 8	1,1	—	—	77	61	15	28	30		
	9.05	mikado advance 34 // 0,6	6: / 14 / :4 / 14 / :VSG 8	0,6	—	—	69	51	18	46	45		
	9.06	mikado A70 // 66.36	6: / 16 / :VSG 8	1,0	—	—	66	36	16	30	35		
	9.07	mikado A60 // 58.32	6: / 16 / :VSG 8	1,0	—	—	58	32	16	30	35		
	9.08	mikado A50 // 51.26 1)	VG 10: / 16 / 4	1,0	—	—	51	26	19	30	35		
	9.09	mikado A40 // 41.22 1)	VG 10: / 16 / 4	1,0	—	—	41	22	23	30	35		
	9.10	mikado A50 /// 46.24 1)	VG 12: / 14 / 4 / 14 / :4	0,6	—	—	46	24	20	48	50		
	9.11	mikado A50 /// 45.25	6: / 14 / 4 / 14 / :VSG 8	0,6	—	—	45	25	20	46	45		
Product	Run. No.	Glass type	Glass assembly	U value (calculated) in W/m²K	U value (legal approved) in W/m²K	Sound insulation (DIN EN ISO 140-3/717-1) R _w in dB	Dimensions in mm	Thickness**) in mm	Weight**) in kg/m²	Notes and other product options. Please observe static calculations as per relevant requirements!			
ISOLAR VACUREX® High-performance heat insulating glass panels	10.01	// 0.30	6 / SZR 18 / 6	0,30	0,41	36	max. 2500 x 4000	30	26	ISOLAR VACUREX consists of two thermally toughened panes which can be designed with RAL colours. The inner pane can optionally be replaced by a coated metal sheet. Higher insulation characteristics are possible on request.			
	10.02	// 0.27	6 / SZR 20 / 6	0,27	0,36	—	max. 2500 x 4000	32	26				
	10.03	// 0.34	6 / SZR 27 / 3 sheet steel	0,34	0,46	44	max. 2500 x 4000	37	49				
Product	Run. No.	Glass type	Glass assembly	U _g (DIN EN 673) in W/m²K	Resistance class*)	Light transmission*) (DIN EN 410) in % (±2)	Solar factor*) g value (DIN EN 410) in % (±2)	Light reflexion*) (DIN EN 410) in % (±2)	Sound insulation (DIN EN ISO 140-3/717-1) R _w in dB	Thickness**) in mm	Weight**) in kg/m²	Notes and other product options. Please observe static calculations as per relevant requirements!	
ISOLAR ARDOREX® Fire protection glass	11.01	advance 34 //	mono									ISOLAR ARDOREX fire protection glass is tested and approved for use in metal, wood and plaster systems. In the event of use beyond legal approval, legal permission is required in each individual case. Approval e.g.: Z-19.14-1646; -1833; -1723; -2118; Z-6.20-1920;	
	11.02	—	EI 30.12	mono	4,9	F(EI) 30	86	69	8	43	22		40
	11.03	—	EI 60.18	mono	4,6	F(EI) 60	85	68	8	44	28		46
	11.04	—	EI 90.24	mono	4,4	F(EI) 90	84	66	8	46	34		54
	11.05	—	EI 120.38	mono	3,9	F(EI) 120	82	64	8	46	48		70
	11.06	ARNOLD FIRE EI 30.12	—	ISO	1,1-0,5	F(EI) 30	88	60	11	—	≥ 34		50
	11.07	ARNOLD FIRE EI 60.18	—	ISO	1,1-0,5	F(EI) 60	77	59	11	—	≥ 40		56
	11.08	ARNOLD FIRE EI 90.24	—	ISO	1,1-0,5	F(EI) 90	76	59	11	—	≥ 46		64

*)The indicated performances have been determined according to the relevant test standards and legal rules for the test dimensions and test conditions required or described therein. Deviating dimensions and combinations as well as glass thickness adjustments resulting from static requirements, for example, may lead to changes in individual characteristics. Indicated values only refer to glass elements. The performances of building elements depend to a large extent on the construction of the frame.

**) Tolerance dependant on type.

U_g values are calculated according to DIN EN 673 for vertical installations. Due to tolerances of input parameters, a deviation of up to 0,1 W/m²K from calculated value is possible. Please also note our Technical Data Sheet!

This information is provided to the best of our knowledge but implies no Warranty. Printing errors, errors and modifications reserved. Publication of this list invalidates all previous versions. Updated: 01/2017