



5. IZOLACJA AKUSTYCZNA



System profili S 8000 IQ okno 1-skrzydłowe
4- lub 5-komorowy ze wzmocnieniem 1,5 mm lub 2,0 mm

Raport z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 32485/Z24	IFT	SGG Climaplust Ultra N 4/16/4 $U_g = 1,1 \text{ W/m}^2\text{K}$ argon / $g = 63 \%$ / $R_w = 32 \text{ dB}$	34 (-1; -4) dB	2
161 32485/Z25	IFT	SGG Climaplust Ultra N Acoustic 6/16/4, WS 26/36 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 61 \%$ / $R_w = 36 \text{ dB}$	38 (-1; -4) dB	3
161 32485/Z26	IFT	SGG Climaplust Ultra N Acoustic 8/16/4, WS 28/37 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 59 \%$ / $R_w = 37 \text{ dB}$	39 (-1; -4) dB	3
161 32485/Z73	IFT	SGG Climaplust Ultra N Acoustic VSG 8/16/4, WS 28/38 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 56 \%$ / $R_w = 38 \text{ dB}$	40 (-2; -5) dB	3
161 32485/Z31	IFT	SGG Tristar Ultra N VSG 10/16/4 (P4A) $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 55 \%$ / $R_w = 39 \text{ dB}$	40 (-1; -4) dB	3
161 32485/Z75	IFT	SGG Climaplust Ultra N Silence VSG SI 6/16/6, WS 28/40 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 58 \%$ / $R_w = 40 \text{ dB}$	43 (-2; -6) dB	4
161 32485/Z29	IFT	SGG Climaplust Ultra N Silence VSG SI 8/24/8, WS 40/45 $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon / $g = 56 \%$ / $R_w = 45 \text{ dB}$	46 (-1; -4) dB	4
161 32485/Z81	IFT	SGG Climaplust Ultra N Silence VSG SI 10/16/VSG SI 8, WS 34/46 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 54 \%$ / $R_w = 46 \text{ dB}$	47 (-1; -4) dB	5
P 02 03 06.6	A.B.O.	SGG Climaplust N Silence VSG SI 8/16/VSG SI 8, WS 32/44 $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon / $g = 54 \%$ / $R_w = 44 \text{ dB}$	47 (-3; -7) dB	5

Raport opiniujący		Raport nr 175 44139/1		
Na podstawie raportu z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 43757/12	IFT	SGG Climatop Ultra N Silence 8 VSG SI /14/4/14/6, WS 46/42, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 42\%$, $R_w = 42 \text{ dB}$	43 (-1; -4) dB	4
161 43757/16	IFT	SGG Climatop Ultra N Acoustic 6/14/4/14/4, WS 42/36, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 49\%$, $R_w = 36 \text{ dB}$	40 (-2; -6) dB	3
161 43757/18	IFT	SGG Climatop Ultra N Silence 8 VSG SI /12/4/12/8 VSG SI, WS 44/47, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 45\%$, $R_w = 47 \text{ dB}$	47 (-2; -5) dB	5
161 43757/19	IFT	Sanco Phon III, 10 VSG P4A/12/4/12/6, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 45\%$	43 (-1; -4) dB	4
161 43757/20	IFT	Sanco Phon III 41/44, 10/12/4/12/6, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 46\%$, $R_w = 41 \text{ dB}$	42 (-1; -4) dB	4
161 43757/22	IFT	SGG Climatop Ultra N Silence, VSG SI 8/12/4/12/8 WS 44/45, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 41\%$, $R_w = 45 \text{ dB}$	45 (-1; -3) dB	4

Raport z badania	Instytut	Próbka	Wynik R_w (C; C_{tr})	SSK
14-000358-PR01 PB Z7-A01-04-de-01	IFT	Okno skrzynkowe z GECCO 3	59 (-2; -8) dB	2

System profili S 8000 IQ okno 1-skrzydłowe

6-komorowe ze wzmocnieniem 2,0 mm

Raport z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 32485/Z43	IFT	SGG Climaplust Ultra N 4/16/4 $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 63 \% / R_w = 32 \text{ dB}$	34 (-1; -4) dB	2
161 32485/Z44	IFT	SGG Climatop Ultra N 4/14/4/14/4 $U_g = 0,6 \text{ W/m}^2\text{K argon} / g = 50 \% / R_w = 34 \text{ dB}$	35 (-1; -5) dB	2
161 32485/Z45	IFT	SGG Climaplust Ultra N Acoustic 6/16/4, WS 26/36 $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 61 \% / R_w = 36 \text{ dB}$	38 (-2; -5) dB	3
161 32485/Z46	IFT	SGG Climaplust Ultra N Acoustic 8/16/4, WS 28/37 $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 59 \% / R_w = 37 \text{ dB}$	39 (-1; -4) dB	3
161 32485/Z88	IFT	SGG Climaplust Ultra N Acoustic VSG 8/16/4, WS 28/38 $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 56 \% / R_w = 38 \text{ dB}$	40 (-2; -6) dB	3
161 32485/Z49	IFT	SGG Tristar Ultra N VSG 10/16/4 (P4A) $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 55 \% / R_w = 39 \text{ dB}$	40 (-1; -5) dB	3
161 32485/Z87	IFT	SGG Climaplust Ultra N Silence VSG SI 6/16/6, WS 28/40 $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 58 \% / R_w = 40 \text{ dB}$	43 (-2; -6) dB	4
P 03 06 11.10	A.B.O.	SGG Climaplust N Silence ,VSG SI 8/16/VSG SI 8, WS 32/44, $U_g = 1,2 \text{ W/m}^2\text{K Argon}, g = 54 \%, R_w = 44 \text{ dB}$	45 (-3; -8) dB	4
161 32485/Z48	IFT	SGG Climaplust Ultra N Silence VSG SI 8/24/8, WS 40/45 $U_g = 1,2 \text{ W/m}^2\text{K Argon} / g = 56 \% / R_w = 45 \text{ dB}$	46 (-1; -4) dB	4
161 32485/Z83	IFT	SGG Climaplust Ultra N Silence, VSG SI 10/16/VSG SI 8, WS 34/46, $U_g = 1,1 \text{ W/m}^2\text{K Argon} / g = 54 \% / R_w = 46 \text{ dB}$	47 (-1; -4) dB	5
P 03 06 11.19	A.B.O.	SGG Climaplust N Silence VSG SI 8/16/6, WS 30/42 $U_g = 1,2 \text{ W/m}^2\text{K Argon} / g = 55 \% / R_w = 42 \text{ dB}$	42 (-2; -7) dB	4

Raport opiniujący		Raport nr 175 44139/1		
Na podstawie raportu z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 43757/12	IFT	SGG Climatop Ultra N Silence 8 VSG SI /14/4/14/6, WS46/42, $U_g = 0,6 \text{ W/m}^2\text{K Argon}, g = 42\%, R_w = 42 \text{ dB}$	43 (-1; -4) dB	4
161 43757/16	IFT	SGG Climatop Ultra N Acoustic 6/14/4/14/4, WS 42/36, $U_g = 0,6 \text{ W/m}^2\text{K Argon}, g = 49\%, R_w = 36 \text{ dB}$	40 (-2; -6) dB	3
161 43757/18	IFT	SGG Climatop Ultra N Silence 8 VSG SI /12/4/12/8, WS 44/47, $U_g = 0,7 \text{ W/m}^2\text{K Argon}, g = 45\%, R_w = 47 \text{ dB}$	47 (-2; -5) dB	5
161 43757/19	IFT	Sanco Phon III, 10 VSG P4A/12/4/12/6, $U_g = 0,7 \text{ W/m}^2\text{K Argon}, g = 45\%$	43 (-1; -4) dB	4
161 43757/20	IFT	Sanco Phon III 41/44, 10/12/4/12/6, $U_g = 0,6 \text{ W/m}^2\text{K Argon}, g = 46\%, R_w = 41 \text{ dB}$	42 (-1; -4) dB	4
161 43757/22	IFT	SGG Climatop Ultra N Silence, VSG SI 8/12/4/12/8 WS 44/45, $U_g = 0,7 \text{ W/m}^2\text{K Argon}, g = 41\%, R_w = 45 \text{ dB}$	45 (-1; -3) dB	4

System profili S 8000 IQ okno 2-skrzydłowe ze słupkiem ruchomym

4- lub 5-komorowy ze wzmocnieniem 1,5 mm lub 2,0 mm

Raport z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 32485/Z32	IFT	SGG Climaplust Ultra N 4/16/4 $U_g = 1,1 \text{ W/m}^2\text{K}$ argon / $g = 63 \%$ / $R_w = 32 \text{ dB}$	35 (-1; -5) dB	2
161 32485/Z33	IFT	SGG Climaplust Ultra N Acoustic 6/16/4, WS 26/36 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 61 \%$ / $R_w = 36 \text{ dB}$	40 (-1; -4) dB	3
161 32485/Z35	IFT	SGG Climaplust Ultra N Silence VSG SI 8/16/6, WS 30/42 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 56 \%$ / $R_w = 42 \text{ dB}$	43 (-1; -4) dB	4

4- lub 5-komorowy ze wzmocnieniem 2,0 mm

Raport z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
P 02 03 06.19	A.B.O.	SGG Climaplust N Silence VSG SI 8/16/VSG SI 8, WS 32/44 $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon / $g = 54 \%$ / $R_w = 44 \text{ dB}$	47 (-2; -7) dB	5
P 02 03 06.20	A.B.O.	SGG Climaplust N Silence VSG SI 8/16/VSG SI 8, WS 32/44 $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon / $g = 54 \%$ / $R_w = 44 \text{ dB}$	47 (-2; -7) dB	5

6-komorowy

Raport z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 32485/Z50	IFT	SGG Climaplust N 4/16/4 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 80 \%$ / $R_w = 32 \text{ dB}$	35 (-2; -5) dB	2
161 32485/Z51	IFT	SGG Climaplust Acoustic 6/16/4, WS 26/36 $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 79 \%$ / $R_w = 36 \text{ dB}$	40 (-2; -4) dB	3
161 32485/Z53	IFT	SGG Climaplust Silence 8 VSG SI/16/6, WS 30/42, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon / $g = 77 \%$ / $R_w = 42 \text{ dB}$	43 (-2; -5) dB	4

System profili S8000 IQ z STV okno 1-skrzydłowe

4- lub 5-komorowy bez wzmocnienia w skrzydle

Raport opiniujący		Raport nr 175 44139/4		
Na podstawie raportu z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 32485/Z24	IFT	SGG Climaplust Ultra N 4/16/4, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 63 \%$, $R_w = 32 \text{ dB}$	34 (-1; -4) dB	2
161 32485/Z44	IFT	SGG Climatop Ultra N 4/14/4/14/4, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 50 \%$, $R_w = 34 \text{ dB}$	35 (-1; -5) dB	2
161 32485/Z25	IFT	SGG Climaplust Ultra N Acoustic 6/16/4, WS 26/36, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 61 \%$, $R_w = 36 \text{ dB}$	38 (-1; -4) dB	3
161 32485/Z26	IFT	SGG Climaplust Ultra N Acoustic 8/16/4, WS 28/37, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 59 \%$, $R_w = 37 \text{ dB}$	39 (-1; -4) dB	3
161 32485/Z29	IFT	SGG Climaplust Ultra N Silence VSG SI 8/24/8, WS 40/45, $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 45 \text{ dB}$	46 (-1; -4) dB	4
161 32485/Z12	IFT	SGG Climaplust Ultra N Silence VSG SI 8/24/10, WS 42/47, $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 47 \text{ dB}$	46 (-1; -3) dB	4
161 32485/Z31	IFT	SGG Tristar Ultra N VSG 10/16/4 (P4A) $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 55 \%$, $R_w = 39 \text{ dB}$	40 (-1; -4) dB	3
161 32485/Z75	IFT	SGG Climaplust Ultra N Silence VSG SI 6/16/6, WS 28/40, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 58 \%$, $R_w = 40 \text{ dB}$	43 (-2; -6) dB	4
161 32485/Z60	IFT	SGG Climaplust Ultra N Silence VSG SI 8/16/6, WS 30/42, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 42 \text{ dB}$	43 (-2; -5) dB	4
161 32485/Z65	IFT	SGG Climaplust Ultra N Silence, VSG SI 6/16/10, WS 32/44, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 58 \%$, $R_w = 44 \text{ dB}$	45 (-2; -5) dB	4
161 32485/Z81	IFT	SGG Climaplust Ultra N Silence, VSG SI 10/16/VSG SI 8, WS 34/46, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 54 \%$, $R_w = 46 \text{ dB}$	47 (-1; -4) dB	5
161 32485/Z71	IFT	SGG Climaplust Ultra N Acoustic VSG 8/16/4, WS 28/38, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 38 \text{ dB}$	40 (-2; -6) dB	3
161 43757/12	IFT	SGG Climatop Ultra N Silence 8 VSG SI /14/4/14/6, WS 46/42, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 42\%$, $R_w = 42 \text{ dB}$	43 (-1; -4) dB	4
161 43757/16	IFT	SGG Climatop Ultra N Acoustic 6/14/4/14/4, WS 42/36, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 49\%$, $R_w = 36 \text{ dB}$	40 (-2; -6) dB	3
161 43757/18	IFT	SGG Climatop Ultra N Silence 8 VSG SI /12/4/12/8 VSG SI, WS 44/47, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 45\%$, $R_w = 47 \text{ dB}$	47 (-2; -5) dB	5
161 43757/19	IFT	Sanco Phon III, 10 VSG P4A/12/4/12/6, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 45\%$	43 (-1; -4) dB	4
161 43757/20	IFT	Sanco Phon III 41/44, 10/12/4/12/6, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 46\%$, $R_w = 41 \text{ dB}$	42 (-1; -4) dB	4
161 43757/22	IFT	SGG Climatop Ultra N Silence, VSG SI 8/12/4/12/8 WS 44/45, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 41\%$, $R_w = 45 \text{ dB}$	45 (-1; -3) dB	4

System profili S8000 IQ z STV okno 1-skrzydłowe
6-komorowe bez wzmocnienia w skrzydle



Raport opiniujący		Raport nr 175 44139/4		
Na podstawie raportu z badania	Instytut	Dane szyby	Wynik R_w (C; C_{tr})	SSK
161 32485/Z43	IFT	SGG Climaplust Ultra N 4/16/4, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 63 \%$, $R_w = 32 \text{ dB}$	34 (-1; -4) dB	2
161 32485/Z44	IFT	SGG Climatop Ultra N 4/14/4/14/4, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 50 \%$, $R_w = 34 \text{ dB}$	35 (-1; -5) dB	2
161 32485/Z45	IFT	SGG Climaplust Ultra N Acoustic 6/16/4, WS 26/36, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 61 \%$, $R_w = 36 \text{ dB}$	38 (-2; -5) dB	3
161 32485/Z46	IFT	SGG Climaplust Ultra N Acoustic 8/16/4, WS 28/37, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 59 \%$, $R_w = 37 \text{ dB}$	39 (-1; -4) dB	3
161 32485/Z48	IFT	SGG Climaplust Ultra N Silence VSG SI 8/24/8, WS 40/45, $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 45 \text{ dB}$	46 (-1; -4) dB	4
161 32485/Z12	IFT	SGG Climaplust Ultra N Silence, VSG SI 8/24/10, WS 42/47, $U_g = 1,2 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 47 \text{ dB}$	46 (-1; -3) dB	4
161 32485/Z49	IFT	SGG Tristar Ultra N VSG 10/16/4 (P4A), $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 55 \%$, $R_w = 39 \text{ dB}$	40 (-1; -5) dB	3
161 32485/Z87	IFT	SGG Climaplust Ultra N Silence VSG SI 6/16/6, WS 28/40, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 58 \%$, $R_w = 40 \text{ dB}$	43 (-2; -6) dB	4
161 32485/Z60	IFT	SGG Climaplust Ultra N Silence VSG SI 8/16/6, WS 30/42, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 42 \text{ dB}$	43 (-2; -5) dB	4
161 32485/Z65	IFT	SGG Climaplust Ultra N Silence, VSG SI 6/16/10, WS 32/44, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 58 \%$, $R_w = 44 \text{ dB}$	45 (-2; -5) dB	4
161 32485/Z83	IFT	SGG Climaplust Ultra N Silence, VSG SI 10/16/VSG SI 8, WS 34/46, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 54 \%$, $R_w = 46 \text{ dB}$	47 (-1; -4) dB	5
161 32485/Z88	IFT	SGG Climaplust Ultra N Acoustic VSG 8/16/4, WS 28/38, $U_g = 1,1 \text{ W/m}^2\text{K}$ Argon, $g = 56 \%$, $R_w = 38 \text{ dB}$	40 (-2; -6) dB	3
161 43757/12	IFT	SGG Climatop Ultra N Silence 8 VSG SI /14/4/14/6, WS 46/42, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 42\%$, $R_w = 42 \text{ dB}$	43 (-1; -4) dB	4
161 43757/16	IFT	SGG Climatop Ultra N Acoustic 6/14/4/14/4, WS 42/36, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 49\%$, $R_w = 36 \text{ dB}$	40 (-2; -6) dB	3
161 43757/18	IFT	SGG Climatop Ultra N Silence 8 VSG SI /12/4/12/8 VSG SI, WS 44/47, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 45\%$, $R_w = 47 \text{ dB}$	47 (-2; -5) dB	5
161 43757/19	IFT	Sanco Phon III, 10 VSG P4A/12/4/12/6, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 45\%$	43 (-1; -4) dB	4
161 43757/20	IFT	Sanco Phon III 41/44, 10/12/4/12/6, $U_g = 0,6 \text{ W/m}^2\text{K}$ Argon, $g = 46\%$, $R_w = 41 \text{ dB}$	42 (-1; -4) dB	4
161 43757/22	IFT	SGG Climatop Ultra N Silence, VSG SI 8/12/4/12/8 WS 44/45, $U_g = 0,7 \text{ W/m}^2\text{K}$ Argon, $g = 41\%$, $R_w = 45 \text{ dB}$	45 (-1; -3) dB	4