

Acoustic Analysis of Existing Tested Reynaers Frame & Glass Reports
John Sisk and Sons Ltd
Maiden Lane Estate
24/10/2013

Existing Reynaers Testing (As per attached reports)

CP 155 - Sliders				
Glass Make Up	Glass Sound Insulation (Rw)	Combined Frame and Glass Result Rw (C;Ctr)	Sound Loss Through Frame (Rw)	Report Reference
Strataphone 13mm Acoustic float/20mm argon/ 9mm acoustic float (13/20/9)	50dB	42dB	(-8dB)	162 34130/4e (Separate attachment in email)
Phonibel S 3441 (11/15/8)	41dB	38dB	(+3dB)	163 34130/4e (Separate attachment in email)
Phonibel S 2534 Double Glazed (6/15/4)	34dB	35dB	(+1dB)	164 34130/4e (Separate attachment in email)
14.8mm sgg stadip silence/24mm argon/10.8mm sgg stadip silence	51dB	43dB (Anticipate)	(-8dB) (Anticipate)	
CS 77 - Casements				
Glass Make Up		Combined Frame and Glass Result Rw (C;Ctr)	Sound Loss Through Frame (Rw)	Report Reference
Strataphone 13mm Acoustic float/20mm argon/ 9mm acoustic float (13/20/9)	50dB	42dB	(-8dB)	AC-3726 (Separate attachment in email)
Phonibel S 2534 Double Glazed (6/15/4)	34dB	36dB	(+2dB)	AC-3724 (Separate attachment in email)
14.8mm sgg stadip silence/24mm argon/10.8mm sgg stadip silence	51dB	44dB (Anticipate)	(-8dB) (Anticipate)	

* To achieve acoustics at 63 Hz we anticipate the above glass make up highlighted in yellow, to eliminate secondary glazing - however this is subject to laboratory testing for actual data.

Everglades Proposed Glass Based on Pattern Above to achieve Red and Yellow façade acoustic requirements

Table 11: Façade Glazing Specification - As per Spectrum Acoustic Consultants Report July 2013

	Required Frequency (Hz) as acoustic report reference PJB6893/12368 July 2013									
	Rw	Rtra	63	125	250	500	1000	2000	4000	8000
Red	48	44	33	35	46	46	46	56	65	62
Yellow	47	41	29	35	46	46	46	56	65	62
Pink	40	34	24	27	29	36	41	42	52	52
Orange	38	32	29	26	27	34	40	38	46	44
Green	34	27	16	21	20	31	39	37	47	45
Blue	31	25	18	24	20	25	35	38	35	35

Everglades Proposed Glass Only

Glass Make Up	Description		Proposed Frequency (Hz)										Weight kg/m2	Report Reference (Separate attachment in email)
			Rw	Rw(Ctr)	63	125	250	500	1000	2000	4000	8000		
10.8/24/14.8	10.8mm sgg stadip silence/24 argon/14.8 mm stadip silence	Red	51	47	No data	38.3	44.2	48	53	53.6	61.3	No data	60kg	0225/DEU/CPD/06 - 27/10/0
10.8/24/14.8	10.8mm sgg stadip/24 argon/14.8 mm sgg stadip silence	Yellow	51	47	No data	38.3	44.2	48	53	53.6	61.3	No data	60kg	0225/DEU/CPD/06 - 27/10/0
10/16/6	10mm Toughened Optifloat Clear / 16 argon / 6mm Toughened Optitherm	Pink	40	35	No data	24	31	37	41	41	50	No data	40kg	P-BA 13/2001
10/16/6	10mm Toughened Optifloat Clear / 16 argon / 6mm Toughened Optitherm	Orange	40	35	No data	24	31	37	41	41	50	No data	40kg	P-BA 13/2001
8/16/6	8mm Toughened Optifloat Clear / 16 argon / 6mm Toughened Optitherm	Green	36	30	No data	20	23	36	42	39	49	No data	35kg	163 35383124 IFT
6/16/6.4	6mm Toughened clear/16mm argon/6.4mm Laminated	Blue	35	31	No data	21	22	31	39	38	47	No data	30kg	Guardian LamiGlass

* 3 or more decibel short as per proposed frequency table

Programme for Acoustic Testing

John Sisk and Sons Ltd

Maiden Lane Estate

24/10/2013

Anticipated Programme for Testing - Red and Yellow Areas Only

To supply & install fully glazed for testing 1nr CS77 composite window and 1nr CP155 Sliding Door

	Duration
Design	1wk
Procurement of Frames and Glass	3wk
Fabrication	1wk
Delivery to Reynaers Belgium Test Centre	1wk
Setup/Testing (Testing slot to be confirmed approx. 4-5 weeks lead in time)	4days
Full Test Report depending on technical spec (Provisional results available at the end of test day)	4-8wks