

SRL



INVESTOR IN PEOPLE

Technical Report

Report Number C/05/5L/3397/1

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Project

**The Laboratory Determination of
The Airborne Sound Transmission
of various Double Glazed Windows**

Prepared for

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By

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1.0 Summary

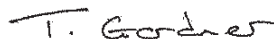
Tests have been done in SRL's Laboratory at Holbrook House, Sudbury, Suffolk, to determine the airborne sound transmission of various types of double glazed windows in accordance with BS EN ISO 140-3:1995.

From these measurements the required results have been derived and are presented in both tabular and graphic form in data sheets 1 to 8.

The results are given in 1/3rd octave bands over the frequency range 50Hz to 10kHz, which is beyond that required by the test standard. Measurements outside the standard frequency range are not UKAS accredited.



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George Thomson
Laboratory Engineer



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Tom Gardner
Head of Testing

4.0 Results

The results of the measurements and subsequent analysis are given in data sheets 1 to 8 and summarised below.

Results relate only to the items tested.

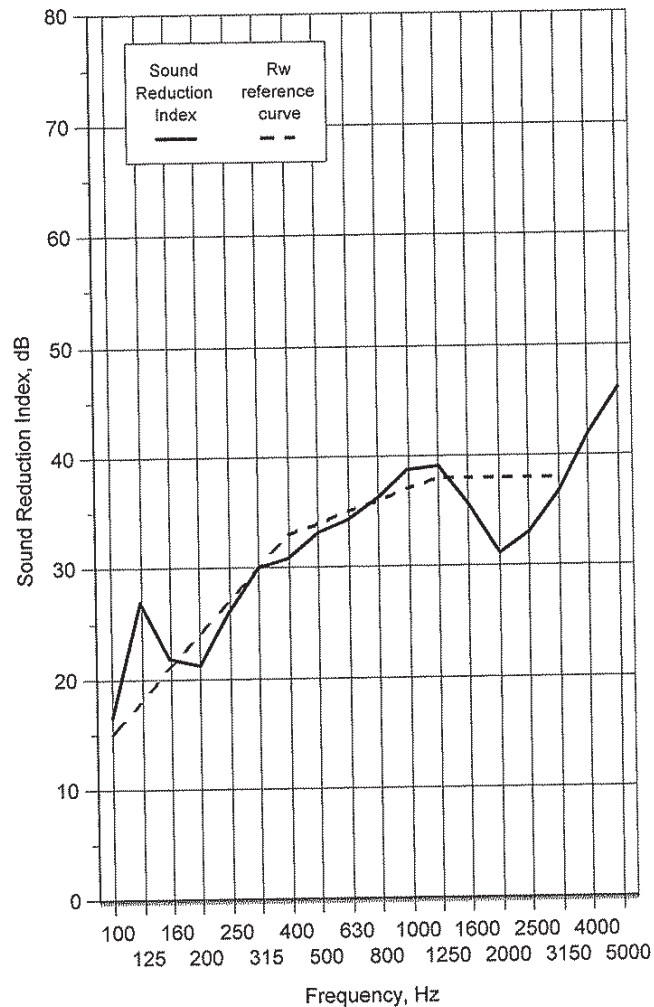
SRL Test Nos.	Description in Brief	R _w (C;C _{tr})
2	Dual framed 55mm tilt & turn window with 10/12/6.4 glass	38 (-1;-4)
3	As test 2 with 6/16/6 glass	34 (-1;-4)
4	As test 2 with 4/20/4 glass	35 (-2;-6)
5	Dual framed 75mm casement window with 6/16/6 glass	34 (-1;-4)
6	As test 5 with 10/12/6.4 glass	37 (-1;-4)
7	Dual framed 55mm fix light window with 4/20/4 glass	33 (-2;-6)
8	As test 7 with 6/16/6 glass	34 (-2;-5)
9	As test 7 with 10/12/6.4 glass	37 (-1;-4)

————— *End of Text* —————

Data Sheet 4

Test Number :	5	Air temperature:	14.1 °C
Client:	Sapa Building Systems Ltd	Air humidity:	37 %
Test Date:	18/11/2005	Receiving room volume	300 m ³
Sample height:	1.195 m	Source room volume:	115 m ³
Sample width:	1.21 m		
Product			
Identification:	Dual framed 75mm casement double glazed window with 6/16/6 glass		

Freq f Hz	Sound Reduction Index, dB	
	1/3 Oct	1/1 Oct
50+	26.2	23.1
63+	21.2	
80+	23.2	
100	16.6	19.9
125	27.0	
160	21.8	
200	21.2	24.3
250	26.0	
315	30.0	
400	30.8	32.5
500	33.1	
630	34.3	
800	36.2	37.8
1000	38.7	
1250	39.0	
1600	35.6	32.9
2000	31.2	
2500	33.0	
3150	36.7	40.0
4000	41.9	
5000	46.1	
6300+	46.6	46.6
8000+	46.4	
10000+	46.7 *	
Average 100-3150	30.7	



Rating according to BS EN ISO 717-1:1997

Rw(C;Ctr)= 34 (-1;-4) dB

Notes * designates measurement corrected for background

designates limit of measurement due to background

+ designates frequency beyond standard and not UKAS accredited

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