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## Products

### Series 531 'SoundOUT' Sliding Windows

A double sash sliding window system with a specially designed frame with double seals on all sides.  
Maximum tested performance 42 dB(A).

### Series 532 'SoundOUT' Casement Windows

A specially designed casement window system designed for maximum performance with adjustable hinges, multi point locking and co-extruded Santoprene seals.  
Maximum tested performance 50 dB(A).

### Series 533 'SoundOUT' Sliding Doors

A double sash sliding door system designed with a specially designed mitred frame with double seals on all sides.  
Maximum tested performance 44 dB(A).

## Limitations

- A reduction of 10 dB(A) equates to halving the perceived sound. So a reduction of 20 dB(A) halves the sound then halves it again.  
Also remember that a reduction of only 3 dB(A) may not be perceptible.
- The sliding window and door has been tested with 'QIon' seals vertically and weatherpile fin seals horizontally.
- Sound will come through the smallest openings so it's critical that all frame and sash joints are sealed correctly. On sliding windows and doors the infill blocks are fitted tight to the frame and sealed to sash to reduce the gaps to a minimum.
- Using the correct seals is critical to overall performance.
- Make sure the existing or front window is fully sealed to the structure and if it's an existing window check the sash to frame seals to make sure there are no gaps.
- There will be projects where 'SoundOUT' is not suitable. For example an elevated Queenslander with timber cladding and say open flooring.  
There is no value trying to fit high performance 'SoundOUT' windows/doors into a wall construction that won't keep noise out.
- It's also worth noting that using thicker laminated glass in a primary window may be suitable for some projects. On the next page we have shown a table of some typical products and their sound reduction properties.

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# Architectural Information

## 'SoundOUT' Secondary Glazing

Typical Product Performance



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### STC Rating    Product dB(A)

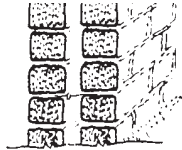
- 20 - 25**      Sliding window with 3mm float glass rates 22 dB(A).  
Double-hung window with 3mm float glass rates 24 dB(A).
- 26 - 30**      Double-hung window with 6.38mm laminated glass rates 27 dB(A).  
Sliding door with 4 or 5mm toughened glass rates 27 dB(A)  
Awning window with 3mm float glass rates 30 dB(A).
- 31 - 35**      Sliding window with 6.38mm laminated glass rates 31 dB(A).  
Hinged door with 6.38mm laminated glass rates 31 dB(A).  
Sliding door with 6.38mm laminated glass rates 32 dB(A).  
Awning window with 6.38mm laminated glass rates 34 dB(A).
- 36 - 40**      Awning window with 10.38mm laminated glass rates 37 dB(A).  
'SoundOUT' sliding door with 4mm toughened glass behind 4mm toughened prime door 40 dB(A).
- 41 - 45**      'SoundOUT' sliding window with 6.38mm laminated glass behind 3mm float prime window 42 dB(A).  
'SoundOUT' sliding door with 6.38mm laminated glass behind 4mm toughened prime door 44 dB(A).  
'SoundOUT' casement with 6.38mm laminated glass behind 3mm float prime window 45 dB(A).
- 46 - 50**      'SoundOUT' casement with 10.38mm laminated glass behind 3mm float prime window 50 dB(A).

### Typical STC Ratings

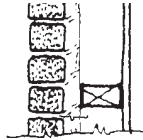
### Walls

Many elements impact on the noise infiltration into a room and all of these have to be considered when you plan to improve the rating. The following sheets are a guide to what can be done and what can go wrong if you only look at the windows. There will also be some projects that are just not suitable.

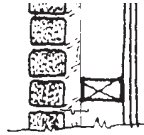
Remember that the software and these notes are only a guide. On many projects a sound engineer/consultant may need to be involved and will nominate the numbers and product make-up to suit the project.



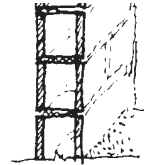
270mm thick Double-skin (cavity) brick wall  
STC: 42 \*



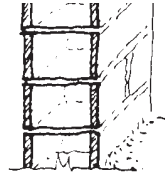
Conventional brick veneer  
STC: 39 \*



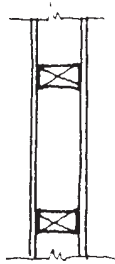
Conventional brick veneer with two layers of 13mm Gyprock plasterboard  
STC: 42



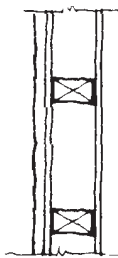
150mm Hollow, dense concrete block  
STC: 45 \*



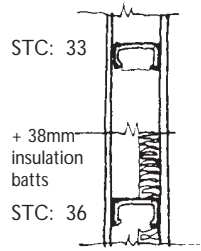
200mm Hollow, dense concrete block  
STC: 48



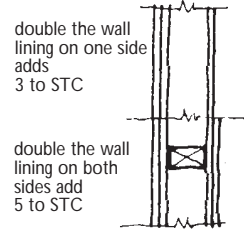
Timber frame with flat cellulose-cement sheets and 10mm Gyprock  
STC: 33 \*



Timber frame with flat cellulose-cement sheets and two layers of 10mm Gyprock internally  
STC: 36



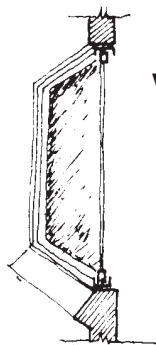
STC: 33  
+ 38mm insulation batts  
STC: 36  
Steel frame + 5mm Fibrous cement and 13mm plasterboard on other side



double the wall lining on one side adds 3 to STC

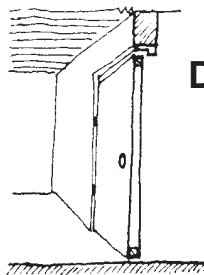
double the wall lining on both sides adds 5 to STC

\* Values as per Australian Standard AS 3671-1989



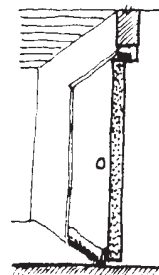
### Window

3mm glass in Vantage sliding window  
STC: 22



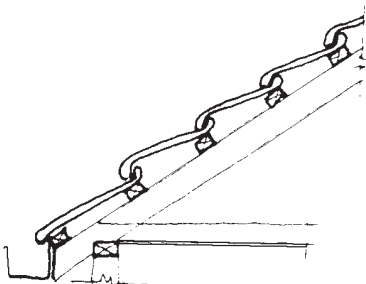
### Doors

Ordinary hollow core door  
STC: 15 \*

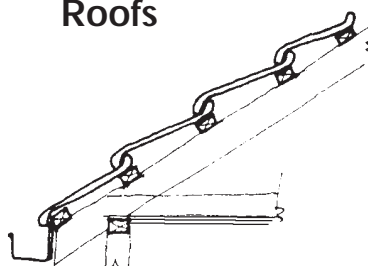


Solid core 42mm thick plywood door, soft plastic gasket on top and sides and drop seal at base  
STC: 30 \*

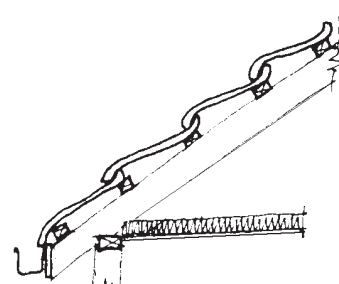
### Roofs



Pitched roof clad with tiles over 10mm Gyprock plasterboard  
STC: 33 \*



Pitched roof clad with tiles, but with two layers of Gyprock plasterboard  
STC: 36 \*



Pitched roof clad with tiles, plus 50mm thick 12kg/m<sup>3</sup> glass fibre blanket between ceiling joists  
STC: 39 \*

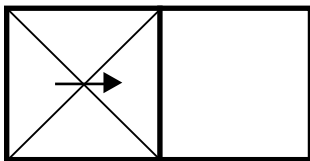


These two pages show some of the test results and other results that have been extrapolated from these numbers. These numbers along with others (some extracted from Australian Window Association data) for different glass thicknesses have been used in 'SoundOUT' software.

The numbers extrapolated for the glass thicknesses not tested are on the conservative side.

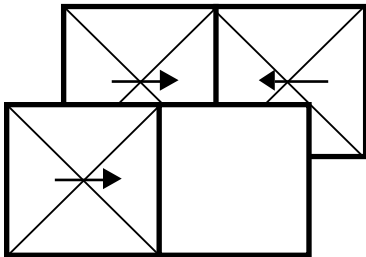
\* Tested by AWS at the National Acoustic Laboratories, Chatswood, N.S.W. and the report number.

#### Sliding Window Series 501-506



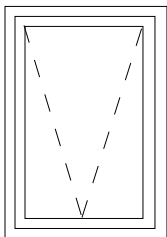
Primary window glass	STC Rating	Results from
3mm	22	* 283
4mm	23	
5mm	24	
6mm	25	
6.38mm Laminated	31	* 813
7.52mm Laminated	32	* 814
10.38mm Laminated	33	
19mm IGU (3-13-3)	30	* 815

#### Sliding Window Series 501-506 with Secondary Glazed 'SoundOUT'



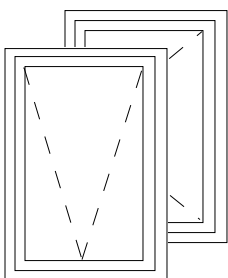
Primary window glass	'SoundOUT' window glass	STC Rating	Results from
3mm	3mm	34	
3mm	4mm	35	
3mm	5mm	36	
3mm	6mm	38	
3mm	6.38mm Laminated	42	* 817
3mm	7.52mm Laminated	42	* 816
3mm	10.38mm Laminated	43	

#### Awning Window Series 516-517



Primary window glass	STC Rating	Results from
3mm	30	* 262
4mm	30	
5mm	31	
6mm	32	
6.38mm Laminated	34	* 1195
7.52mm Laminated	36	
10.38mm Laminated	37	* 265
19mm IGU (3-13-3)	33	

#### Awning Window Series 516 with Secondary Glazed 'SoundOUT'

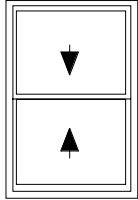


Primary window glass	'SoundOUT' window glass	STC Rating	Results from
3mm	3mm	38	
3mm	4mm	39	
3mm	5mm	41	
3mm	6mm	42	
3mm	6.38mm Laminated	45	* 263
3mm	7.52mm Laminated	47	
3mm	10.38mm Laminated	50	* 264



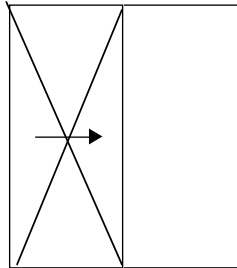
## 'SoundOUT' Secondary Glazing

Window/Door Glass Performance Table



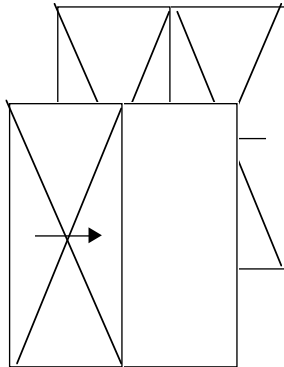
### Double-hung Window Series 514

Primary window glass	STC Rating	Results from
3mm	24	AWA
4mm	24	
5mm	25	* 783
6mm	25	
6.38mm Laminated	27	* 784
7.52mm Laminated	28	* 785



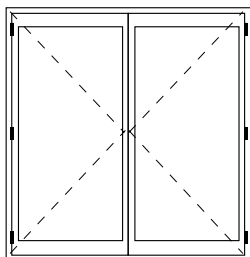
### Sliding Door Series 541-543

Primary door glass	STC Rating	Results from
4mm	27	* 797
5mm	27	
6mm	28	
6.38mm Laminated	32	* 793
7.52mm Laminated	32	* 795
10.38mm Laminated	34	* 794
19mm IGU (5-9-5)	33	* 796



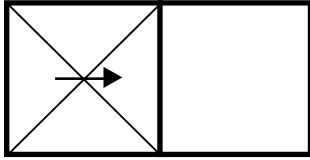
### Sliding Door Series 541 with Secondary Glazed 'SoundOUT'

Primary door glass	'SoundOUT' door glass	STC Rating	Results from
4mm	4mm	40	* 800
4mm	5mm	40	
4mm	6mm	41	
4mm	6.38mm Laminated	44	* 799
4mm	7.52mm Laminated	45	
4mm	10.38mm Laminated	46	



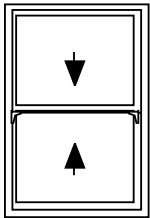
### Hinged Door Series 548-549

Primary door glass	STC Rating	Results from
4mm	25	
5mm	25	
6mm	26	
6.38mm Laminated	31	* 804
7.52mm Laminated	32	
10.38mm Laminated	33	
19mm IGU (5-9-5)	32	* 803



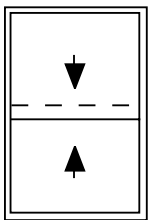
#### Magnum™ Sliding Window Series 601-602

Primary window glass	STC Rating	Results from
4mm	31	* 1198
5mm	31	
6mm	32	
6.38mm Laminated	33	* 1200
10.38mm Laminated	35	* 1199
16mm IGU (4-8-4)	32	* 1201



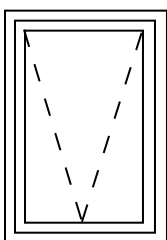
#### Magnum™ Double-hung Window Series 613

Primary window glass	STC Rating	Results from
6.38mm Laminated	30	* 1320
19mm IGU (3-11-5)	29	



#### ClearVENT™ Sashless Double-hung Window Series 614

Primary window glass	STC Rating	Results from
6mm	26	* 1202



#### Magnum™ Awning Window Series 616

Primary window glass	STC Rating	Results from
4mm	31	* 1203
5mm	31	
6mm	32	
6.38mm Laminated	34	* 1211
10.38mm Laminated	36	* 1212
24mm IGU (6-12-6)	35	* 1213



# Architectural Information

## 'SoundOUT' Secondary Glazing

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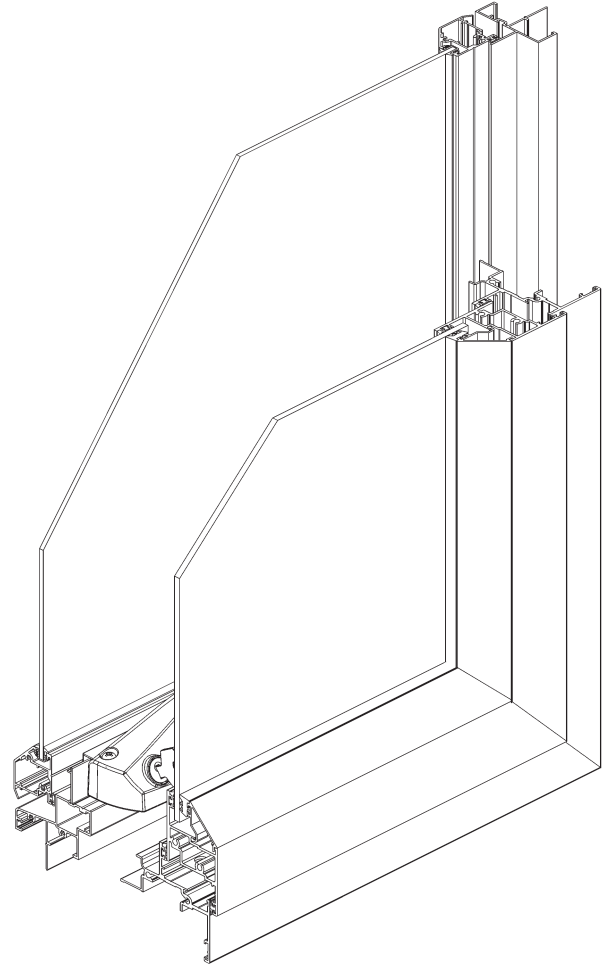
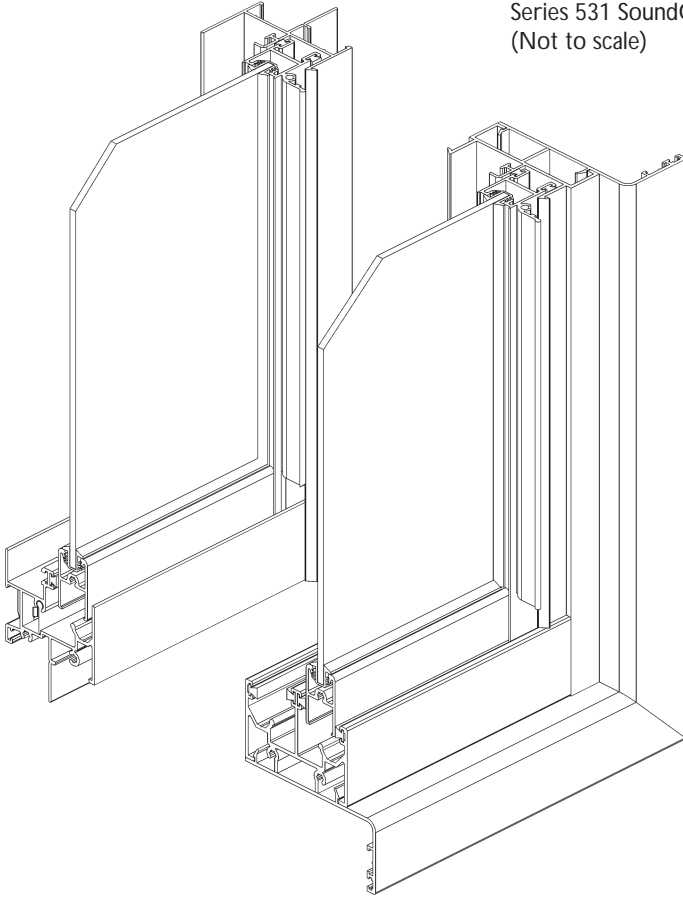
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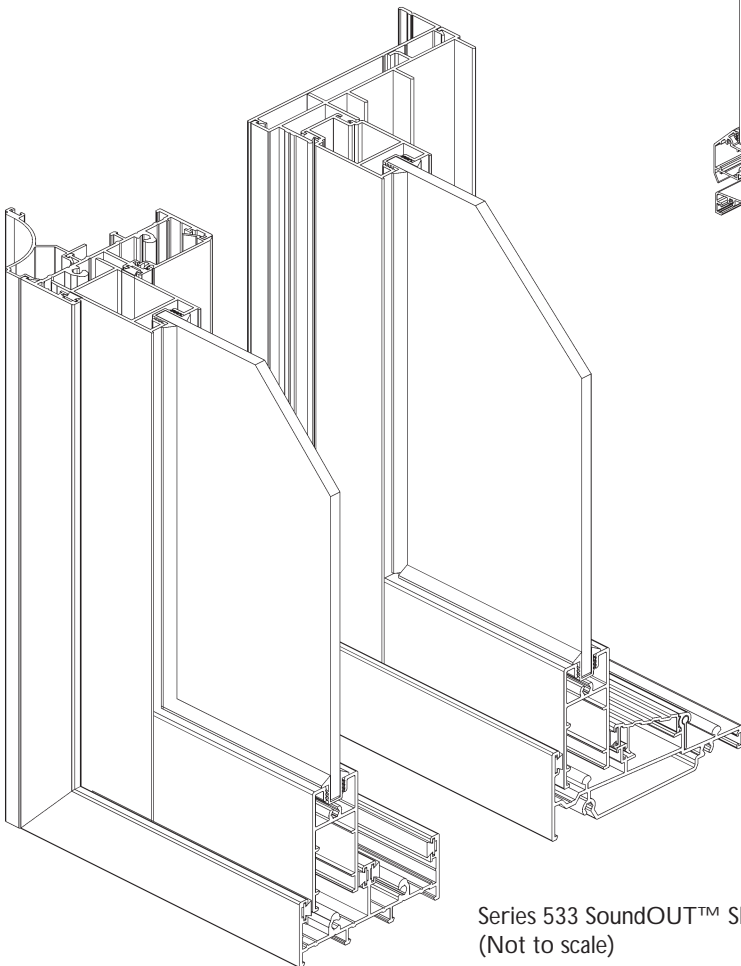
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Series 531 SoundOUT™ Sliding window  
(Not to scale)



Series 532 SoundOUT™ Casement window  
(Not to scale)



Series 533 SoundOUT™ Sliding door  
(Not to scale)