



# BERECO AMBIENT NOISE REDUCING TIMBER SLIDING SASH WINDOWS

ACOUSTIC DATA REPORT

42  
dB



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# Bereco Ambient Noise Reducing Sliding Sash Windows

## Introduction

Introducing a timber sliding sash window which at various frequencies exceeds the acoustic performance of the acoustic glazing alone. Unique to the market, the Bereco Ambient Range includes timber sash windows with overall acoustic ratings of 33, 38, 41 and 42dB. Accomodating double glazed units of up to 35mm results in higher sound reduction and each timber sliding sash has a proven weather performance to BS6375 Part 1, with an air permeability of only 0.8m<sup>3</sup>/h.

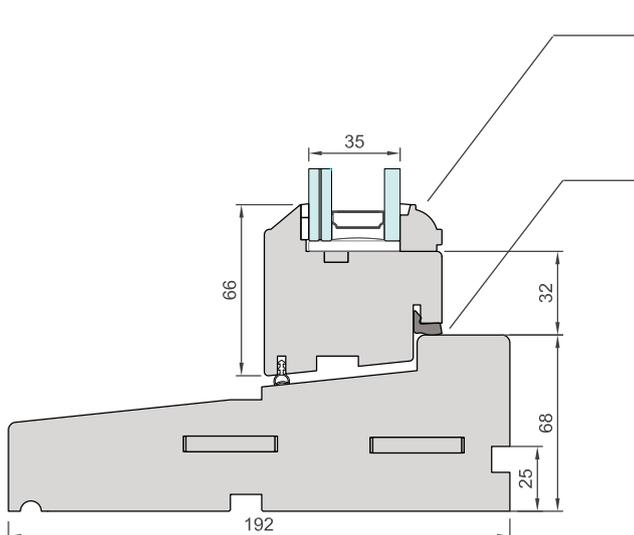
## Report Summary

The information shown in this report reflect the results derived from the BS EN ISO 10140-2:2010 Laboratory testing of both the Acoustic Glazing used in our Ambient Sliding Sash Windows and the measurements for the overall window itself (frame + glazing inclusive).

The below summary table shows the dB rating achieved by the Bereco Ambient Range according to the Exova test report (BMT/MTP/F15327). Each window within the range has been certified by Bluesky Certification. All certificates are available for download at [www.bereco.co.uk/about/certification](http://www.bereco.co.uk/about/certification).

Unit Configuration	Window R <sub>w</sub> dB (C: Ctr)	Frequency Hz					
		125	250	500	1000	2000	4000
4/16Ar/4ESGT	33 (-1; -5)	25	19	28	36	42	40
8.8/12Ar/4ESGT	38 (-1; -4)	30	26	35	41	46	45
8.8/20Ar/6ESGT	41 (-1; -6)	30	32	40	42	43	47
8.8/16Ar/9.5T	42 (1; -5)	28	37	41	42	45	51

## Technical Summary



Laminated timber (Laminated Redwood >450kg/m<sup>3</sup>) offers excellent noise cancelling properties compared to other construction materials.

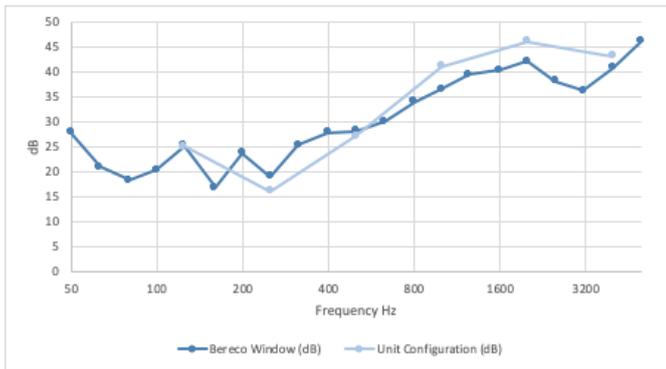
Dual-insulating Schlegel foam weather-strips offer advanced performance compared to other materials such as brush seals which offer poor protection against air leakage.

- Tested to BS6375 (Part 1): Exposure rating: 2000Pa
- Air permeability: 600Pa (Class 3)
- Watertightness: 250Pa (Class 6A)
- Wind resistance of 2000Pa (Class 5C)

Drawing shows Traditional Sliding Sash (42dB)

## 33dB Window

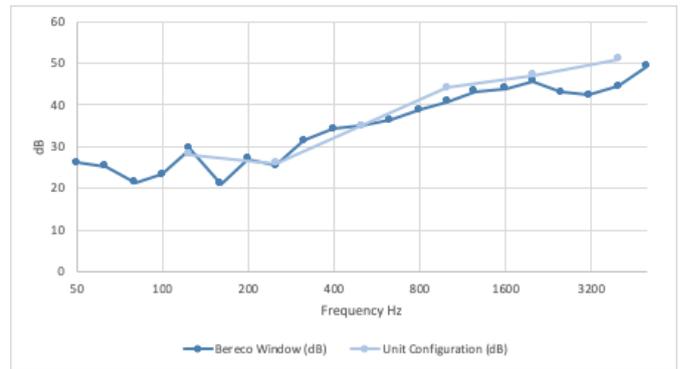
Unit Configuration: 4/16Ar/4ESGT



Frequency (Hz)	125	250	500	1000	2000	4000
<b>Window (dB)</b>	25	19	28	36	42	40
<b>Glazing Unit (dB)</b>	25	16	27	41	46	43

## 38dB Window

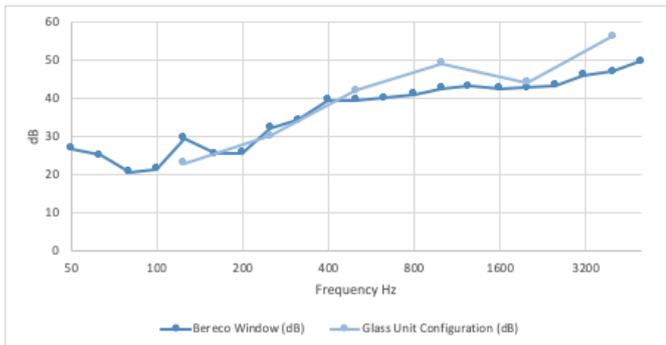
Unit Configuration: 8.8/12Ar/4ESGT



Frequency (Hz)	125	250	500	1000	2000	4000
<b>Window (dB)</b>	25	19	28	36	42	40
<b>Glazing Unit (dB)</b>	25	16	27	41	46	43

## 41dB Window

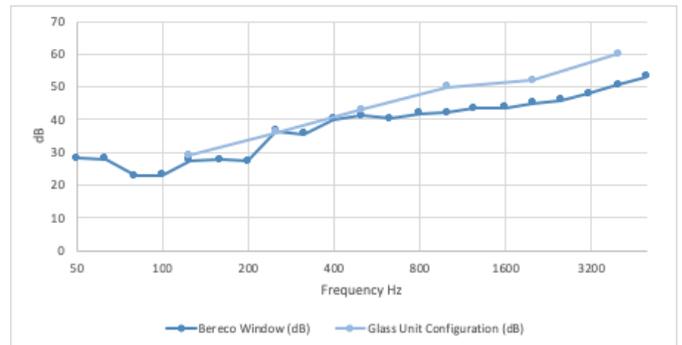
Unit Configuration: 8.8/20Ar/6ESGT



Frequency (Hz)	125	250	500	1000	2000	4000
<b>Window (dB)</b>	30	32	40	42	43	47
<b>Glazing Unit (dB)</b>	23	30	42	49	44	56

## 42dB Window

Unit Configuration: 8.8/16AR/9.5T



Frequency (Hz)	125	250	500	1000	2000	4000
<b>Window (dB)</b>	28	37	41	42	45	51
<b>Glazing Unit (dB)</b>	29	36	43	50	52	60

## Report Conclusion

As shown in the results, the Bereco Sliding Sash Window performs exceptionally well throughout the frequency range. At the lower frequencies of 250Hz and 500Hz, the 33dB sliding sash window in fact outperforms the glazing alone and at the upper frequencies the results remain positive with the difference not exceeding 4dB.

At Bereco we aim to offer a solution to architects and specifiers which makes it possible to specify not simply a glazing dB rating but an overall window dB rating and with dB ratings from 33dB up to 42dB we offer a market leading solution for each individual noise reducing requirement.

*Test Report Available Upon Request*



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