



Laboratory measurement of airborne sound insulation of small building elements
Element-normalized level difference according to BS EN 20140-10:1992
BRE horizontal transmission suite (B9)

Client: Rytons Building Products Ltd

Test date: 12/02/2013

Test number: L112-078

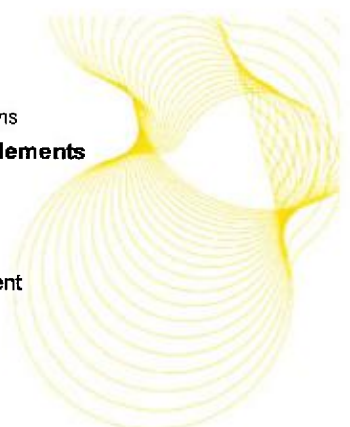
Test element: vent

0578

Filler wall area: 9.8 m²

Description:

AAH125LP-High Rise Super Acoustic LookRyt® AirCore®



Source room volume: 130 m³

Air temperature: 9 °C

Receive room volume: 115 m³

Air relative humidity: 55 %

Frequency (Hz)	Reverberation time (s)	Background level (dB)	Source level (dB)	Receive level (dB)	$D_{n,e}$ (dB)
50	1.68	23.1	92.7	69.3	24.3
63	1.51	20.1	97.8	73.1	25.1
80	1.28	17.7	96.7	64.7	31.7
100	1.56	19.4	97.9	59.0	39.5
125	1.72	16.6	98.6	56.0	43.7
160	1.72	16.8	96.6	52.4	45.2
200	1.80	12.1	98.4	57.2	41.6
250	1.58	14.6	96.2	59.3	36.2
315	1.66	11.0	93.9	56.0	37.4
400	1.60	11.8	92.6	53.1	38.9
500	1.57	15.7	93.6	55.6	37.4
630	1.61	14.7	95.2	54.7	39.9
800	1.59	12.1	95.5	53.9	41.0
1,000	1.56	9.3	95.0	49.0	45.3
1,250	1.62	11.3	95.4	41.5	53.4
1,600	1.59	12.8	95.7	36.9	58.2
2,000	1.57	10.3	93.3	39.2	53.4
2,500	1.51	8.7	93.7	37.6	55.2
3,150	1.38	7.5	94.6	31.0	62.3
4,000	1.25	7.9	99.6	28.6	69.3
5,000	1.13	7.4	99.9	26.8	70.9

x Adjusted for flanking transmission

o Correction = 13 dB

Rating according to BS EN ISO 717-1:1997					
$D_{n,e,w}(C;C_{tr}) = 44 (0;-2) \text{ dB}$	$C_{50-3150} = 0 \text{ dB}$	$C_{50-5000} = 1 \text{ dB}$	$C_{100-5000} = 1 \text{ dB}$	$C_{tr,50-3150} = -$	$C_{tr,100-5000} = -2 \text{ dB}$
Evaluation based on laboratory measurement results obtained by an engineering method					
Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed $\pm 1 \text{ dB}$ for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e,w}$)					

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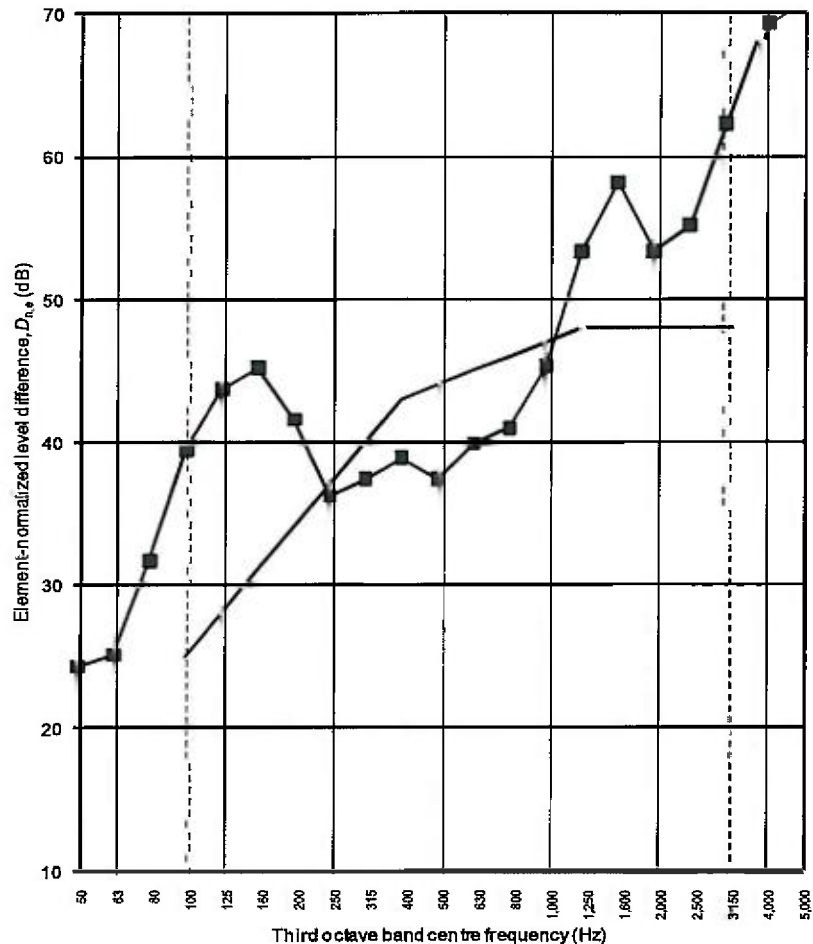
Description:

AAH125LP-High Rise Super Acoustic LookRyt® AirCore®

Source room volume: 130 m³
 Receive room volume: 115 m³

Air temperature: 9 °C
 Air relative humidity: 55 %

Frequency (Hz)	$D_{n,e}$ One-third octave (dB)
50	24.3
63	25.1
80	31.7
100	39.5
125	43.7
160	45.2
200	41.6
250	36.2
315	37.4
400	38.9
500	37.4
630	39.9
800	41.0
1,000	45.3
1,250	53.4
1,600	58.2
2,000	53.4
2,500	55.2
3,150	62.3
4,000	69.3
5,000	70.9



x Adjusted for flanking transmission

o Correction = 1.3 dB

Rating according to BS EN ISO 717-1:1997

$D_{n,e,w}(C;C_{tr}) = 44 (0;-2) \text{ dB}$ $C_{50-3150} = 0 \text{ dB}$ $C_{50-5000} = 1 \text{ dB}$ $C_{100-5000} = 1 \text{ dB}$
 $C_{tr,50-3150} = -$ $C_{tr,50-5000} = -$ $C_{tr,100-5000} = -2 \text{ dB}$

Evaluation based on laboratory measurement results obtained by an engineering method

Based on the data provided in BS EN 20140-2:1993 it is estimated that the measurement uncertainty should not exceed $\pm 1 \text{ dB}$ for the single quantity ($D_{n,e,w}$) and should not exceed the values in Table A1 of BS EN 20140-2:1993 for the data in the individual third octaves ($D_{n,e,w}$)

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The BRE logo is displayed in a bold, lowercase, yellow sans-serif font. It is positioned on the left side of the page, set against a dark teal background that features a complex pattern of thin, overlapping yellow lines that create a sense of depth and movement, resembling a stylized architectural or scientific structure.

bre

**Rytons Building
Products Ltd.
Laboratory Sound
Insulation Test of Core
Ventilators in the BRE
Horizontal Transmission
Suite**

Prepared for:
Design House
Orion Way
Kettering Business Park
Kettering Northants
NN15 6NL

3rd April 2013

Test report number **284908**



0578