

**Airborne sound reduction indices according to ISO 10140-2**  
**Laboratory measurements of airborne sound insulation of building elements**

Client: **Ventüer Limited**

Date of test: 27-May-19

Test rooms: Reverberation Chambers A and C

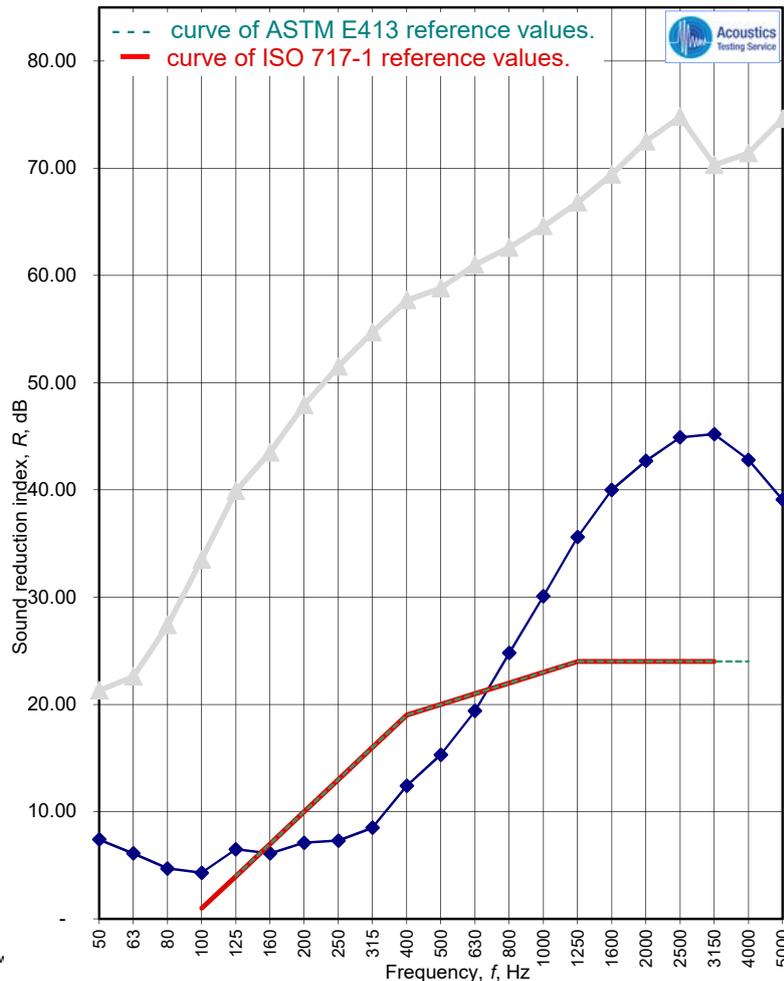
Description and identification of the test specimen and test arrangement:

**Sample brand name:** AL-600W by Ventüer Limited  
**Sample Description:** 600mm double bank acoustic louvre  
**Dimensions:** 1800mm high x 1200mm wide  
**Perimeter sealant:** Closed cell expanding foam

Source chamber was Chamber C and receiving chamber was Chamber A. Test specimen was installed by client. Curing time was: N/A  
 Comp Files: TL:T1922-4 TL, Source Chamber, Receiving Chamber, Bgr:T1922-4 Bgr, Receiving Chamber. RT:T1922-4 RT

Area S of test specimen: 2.16 m<sup>2</sup>  
 Air temp in the test rooms: 18 °C  
 Air humidity in test rooms: 69 %  
 Source room volume: 208 m<sup>3</sup>  
 Receiving room volume: 202 m<sup>3</sup>

Frequency <i>f</i> Hz	<i>R</i> One-third octave dB
50	7.4
63	6.1
80	4.7
100	<b>4.3</b>
125	<b>6.5</b>
160	<b>6.1</b>
200	<b>7.1</b>
250	<b>7.3</b>
315	<b>8.5</b>
400	<b>12.4</b>
500	<b>15.3</b>
630	<b>19.4</b>
800	<b>24.8</b>
1000	<b>30.1</b>
1250	<b>35.6</b>
1600	<b>40.0</b>
2000	<b>42.7</b>
2500	<b>44.9</b>
3150	<b>45.2</b>
4000	<b>42.8</b>
5000	39.1



Notes: #N/A = Value not available. **Bold** values are used to calculate STC and *R<sub>v</sub>*

Rating according to ISO 717-1

$$R_w (C; C_{tr}) = 20 (-1; -5) \text{ dB}$$

$$C_{50-3150} = -1 \text{ dB}$$

$$C_{50-5000} = 0 \text{ dB}$$

$$C_{100-5000} = 0 \text{ dB}$$

$$C_{tr,50-3150} = -6 \text{ dB}$$

$$C_{tr,50-5000} = -6 \text{ dB}$$

$$C_{tr,100-5000} = -5 \text{ dB}$$

Rating according to ASTM E413 -87

**Sound Transmission Class = 20 dB**

Evaluation based on laboratory measurement results obtained by an engineering method.

No. of test report: **T1922-4**

Name of test institute: University of Auckland Acoustics Testing Service.

Date: 24 June 2019

Signature: *Lawrence*

**Sound reduction index, R, in accordance with ISO 10140-2  
Laboratory measurements of airborne sound insulation of building elements**

**Description and identification of the test specimen and test arrangement:**

Date of test: 14-May-19

**Airborne sound insulation of a Double leaf Double frame wall**

Client: Ventüer Limited

**Double timber frame wall comprising:**

Lining source side: 2 layers of 10 mm Gib Aqualine plasterboard  
 Framing source side: 90 mm x 45 mm timber studs set at 600mm centres  
 Frame spacing: 25 mm  
 Framing receiving side: 90 mm x 45 mm timber studs set at 600mm centres  
 Lining receiving side: 2 layers of 10 mm Gib Aqualine plasterboard  
 Batts in receiving side wall frame: Pink Batts R2.2 glass fibre insulation  
 Perimeter sealant: Gib Soundseal

Source chamber: Chamber C, Receiving chamber: Chamber A . Test specimen installed by client. Curing time: 14hrs

Emitted noise: Header Size:: Pulse Version:.42 Received noise: Header Size:: Pulse

Computer files: Version:: Reverberation time: Header Size:: Pulse Version::Pulse Version:

Area S of test specimen: 11.95 m<sup>2</sup>

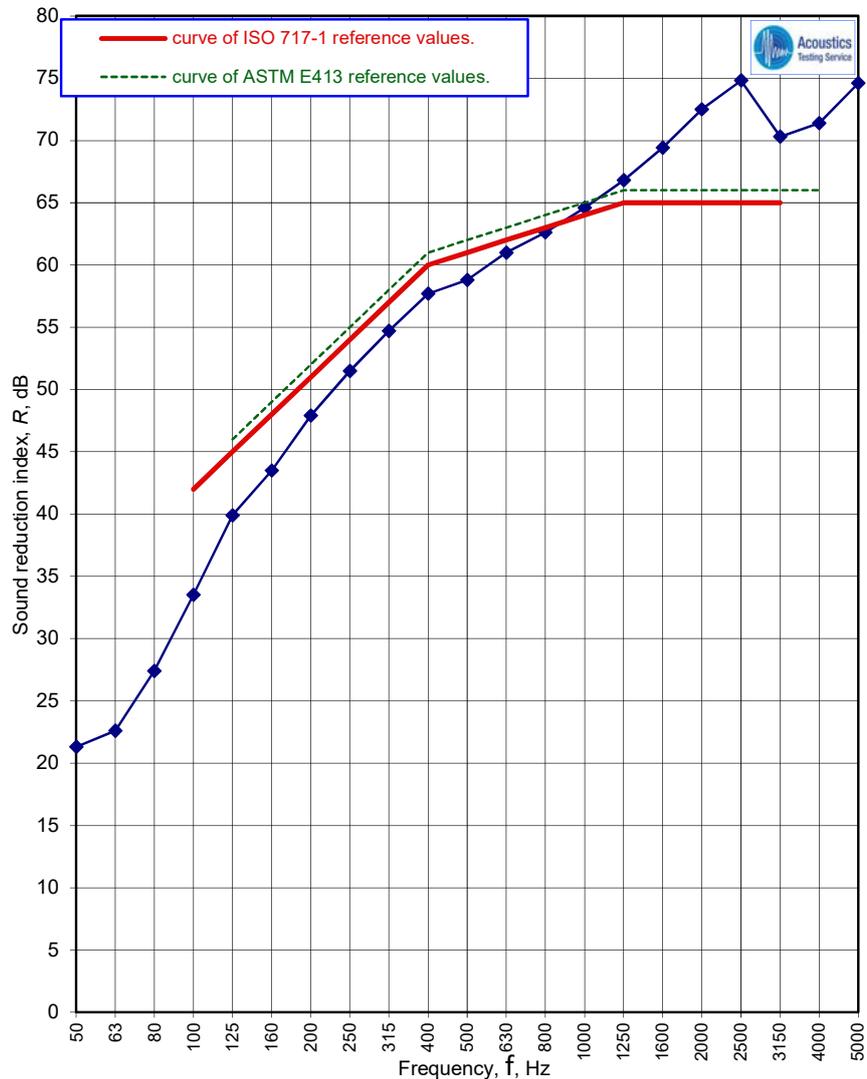
Air temp in the test rooms: 20 °C

Air humidity in test rooms: 61 %

Source room volume: 209 m<sup>3</sup>

Receiving room volume: 202 m<sup>3</sup>

Frequency <i>f</i> Hz	R One-third octave dB
50	21.3
63	22.6
80	27.4
100	<b>33.5</b>
125	<b>39.9</b>
160	<b>43.5</b>
200	<b>47.9</b>
250	<b>51.5</b>
315	<b>54.7</b>
400	<b>57.7</b>
500	<b>58.8</b>
630	<b>61.0</b>
800	<b>62.6</b>
1000	<b>64.6</b>
1250	<b>66.8</b>
1600	<b>69.4</b>
2000	<b>72.5</b>
2500	<b>74.8</b>
3150	<b>70.3</b>
4000	<b>71.4</b>
5000	74.6



- Notes: 1. #N/A = Value not available.  
 2. **Blue** values are used to calculate STC and R<sub>w</sub>.  
 3. Words in **Blue Italic** in the description are manufacturers brand names.

Rating according to ISO 717-R<sub>w</sub> (C;C<sub>tr</sub>) = **61 (-3; -10) dB**

Rating according to ASTM E413 -87

C<sub>50-3150</sub> = -8 dB ; C<sub>tr, 50-3150</sub> = -20 dB

**Sound Transmission Class = 62 dB**

C<sub>50-5000</sub> = -7 dB ; C<sub>tr, 50-5000</sub> = -20 dB

C<sub>100-5000</sub> = -2 dB ; C<sub>tr, 100-5000</sub> = -10 dB

No. of test report: **T1922-filler**

Name of test institute: University of Auckland Acoustics Testing Service.

Signature: *[Handwritten Signature]*

Date: 5 June 2019