25/02/2019

CSR - AFS Walling Solutions
110 Airds Road
MINTO NSW 2566

**AFS Logicwall 200mm Base Wall - Acoustic Performance Opinion - AFS4001**

This letter presents the professional acoustic assessment of Acoustic Logic Consultancy (ALC) in relation to the following AFS wall system:

- **AFS Logicwall 200mm Base Wall**

  \( R_w \): Weighted Sound Reduction Index which is calculated using the third octave frequency bands between and including 100 Hz to 3150 Hz.

  \( D_{ntw} \): Weighted Standardised Level Difference which is calculated using the third octave frequency bands between and including 100 Hz to 3150 Hz.

  \( C_{tr} \): Spectrum adaptation term.

It is the opinion of ALC that this construction will achieve the acoustic rating presented in the table below:

<table>
<thead>
<tr>
<th>Predicted ( R_w )</th>
<th>Predicted ( C_{tr} )</th>
<th>Predicted ( R_w + C_{tr} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>-5</td>
<td>53</td>
</tr>
</tbody>
</table>

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Allowing for field testing tolerances, the $D_{nL,w} + C_{tr}$ rating would normally be expected to be within 5 points of the documented $R_w + C_{tr}$ rating, which correlates with the relationship as documented in the National Construction Code.

The opinions are made on the following basis:

- The systems are installed in accordance with the manufacturer’s standard installation details.
- Good quality installation practices including the sealing of all junctions and joints and maintaining specified clearances.
- The systems are installed with all junctions acoustically sealed so that negligible sound transmission occurs at these points.
- All services penetrations etc. are acoustically sealed and treated so that negligible sound transmission occurs through these points.
- Flanking paths are eliminated and the structures into which the systems are installed are capable of allowing the nominated rating to be achieved.
- Wall systems do not have penetrations, or these are acoustically treated to prevent sound leakage, and the perimeters are acoustically sealed (unless otherwise stated).

Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Consultancy Pty Ltd
Justin Leong