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Unitex External Walls
13 mm Plasterboard without Insulation
Estimated Acoustic Rating

SLR Consulting Pty Ltd (SLR) were retained by Unitex Pty Ltd to provide estimations of the acoustic ratings of their rendered façade wall systems. Samples of the wall system and details of the density and thickness of construction materials have been provided to SLR by Unitex.

Table 1 Unitex Wall, 13 mm plasterboard without insulation

	System component	Thickness	Surface Mass
(a)	1 x 13 mm thick standard core plasterboard	13 mm	8.5 kg/m²
(b)	Timber studs @ 600 mm centres	90 mm	NA
(c)	Builders' breathable wrap	-	-
(d)	Polystyrene battens	20 mm	NA
(e)	Unitex Base Board, pre-coated and meshed	75 mm	3.8 kg/m²
(f)	Unitex Base Board, render and surface texture coat	6 mm	7.7 kg/m²
	TOTAL	**204 mm**	**20 kg/m²** (cladding only)

The estimated airborne sound rating of the above described system is **R_w = (38± 3) dB**.

The above described wall has not been tested in a laboratory. If tested, the wall is predicted to achieve an acoustic rating of at least R_w 35 dB.

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NOTES

1. The above opinion is based on laboratory tests carried out in Melbourne, Victoria, and on international tests from facilities where testing conforms to the requirements of ISO 140-8, and on calculation.

2. The R_W (Weighted Sound Reduction Index) is a single number index used to rate the sound isolation of a partition for noises which do not have significant low frequency components, such as speech. The R_W value given is the expected performance of a building element in a laboratory that tests to AS1191-2002 "Acoustics - Method for Laboratory Measurement of the Airborne Sound Transmission Loss of Building Partitions", and determined according to the procedure in AS/NZS ISO 717.1:2004 "Acoustics - Rating of sound insulation in buildings and of building elements - Airborne sound insulation".

3. The expected tolerance of opinions is ±3dB for the R_W of wall systems without insulation. This allows for variations in the test method, the difference between laboratories and the accuracy of the estimating techniques. The rating obtained on a building site, called the Weighted Apparent Sound Reduction Index (R'_W), may differ from the laboratory result.

4. This opinion is based on the wall being constructed to the specification provided above and being of good construction with the face joints finished, the perimeters acoustically caulked and no acoustical weaknesses.