



# HIGH RISE EXTERNAL WALLS ACOUSTIC OPINIONS

Table 1: Predicted acoustic ratings of external wall systems

| EXTERNAL WALL SYSTEM  | NASAHI PANEL SIZE | CALCULATED ACOUSTIC PERFORMANCE AIRBORNE RW (CTR) |
|---|-------------------|---|
| Option 1:   | 50mm Nasahi Panel | 54 (-9)   |
| <ul style="list-style-type: none"> <li>One layer of 10mm standard grade plasterboard</li> <li>76mm metal stud</li> <li>R2 insulation</li> <li>16mm batten</li> <li>Nasahi Panel</li> <li>4mm cementious render</li> </ul> | 62mm Nasahi Panel | 54 (-7)   |
|   | 75mm Nasahi Panel | 55 (-7)   |
| Option 2:   | 50mm Nasahi Panel | 54 (-7)   |
| <ul style="list-style-type: none"> <li>One layer of 10mm standard grade plasterboard</li> <li>92mm metal stud</li> <li>R2 insulation</li> <li>16mm batten</li> <li>Nasahi Panel</li> <li>4mm cementious render</li> </ul> | 62mm Nasahi Panel | 55 (-7)   |
|   | 75mm Nasahi Panel | 56 (-7)   |

Note: Exact acoustic performance of the external wall system is dependant on the specification of the products used.

Reference Document: Renzo Tonin & Associates, Acoustic Opinions Report No. TH736-01F02 R8, Dated 16<sup>th</sup> April 2020.

Table 2 - Typical Acoustic Performances of Various External Wall types

| DESCRIPTION  | SYSTEM THICKNESS (MM) | ACOUSTIC PERFORMANCE Rw+Ctr |
|--|-----------------------|-----------------------------|
| Nasahi® 50mm External Wall System, 4mm render, 16mm Batten, 92mm timber frame, R2 Insulation, 10mm Plasterboard. | 170                   | 47                          |
| Brick veneer, Timber Frame and Internal Plasterboard   | 250                   | 50                          |
| Rendered EPS, Timber Frame and Internal Plasterboard   | 174                   | 29                          |
| Weatherboards and 120mm mineral wool insulation  | 120                   | 23                          |

Note: Exact acoustic performance of the external wall system is dependant on the specification of the products used.

Reference Document: Renzo Tonin & Associates, Acoustic Opinions Report No. TJ101-01F02 Acoustic Opinions (r3), Dated 27<sup>th</sup> April 2016.