## Soundproofing Timber Floors

Results Achieved by Using PhoneStar on Timber Floors (previously branded as Phonewell)


Recommended Construction From Top Down:

- Any Floor Covering e.g. Laminate, Solid Wood, Tiles, Carpet, Linoleum
- 15 mm PhoneStar Acoustic Insulation
- Sub-deck e.g. OSB Board or floorboards
- Timber Joists
- Optional - Thermal Insulation in Cavity (mineral wool)
- $16 \mathrm{~mm} \times 3 \mathrm{M}$ Resilient Bars
- 1 or 2 Layers of Acoustic Plasterboard 12.5 or 15 mm


## Results from Sound Research Laboratory (SRL)

Note: The Ctr (Correction) values (in brackets) are a low frequency correction factor.

|  | Description of Floor Construction | Airborne Rw (Ctr) | Impact Ln,w |
| :---: | :---: | :---: | :---: |
| Test 1 Upgraded Floor | 15mm PhoneStar <br> 15 mm T\&G OSB Board <br> $235 \times 50 \mathrm{~mm}$ Timber Joists on Hangers <br> $10 \mathrm{~kg} / \mathrm{M}^{3}$ insulation between joists - <br> 100 mm <br> 16 mm Resilient Bars <br> $2 \times 12.5 \mathrm{~mm}$ Acoustic Plasterboard | $59(-6) \mathrm{dB}$ <br> 19dB Improvement On Bare Test Floor | 56dB <br> 19dB Improvement On Bare Test Floor |
| Test 2 Upgraded Floor | As Above, but with 18 mm T\&G OSB on top of PhoneStar | $60(-6) \mathrm{dB}$ <br> Further 1dB Improvement On Above Floor | 53 dB Further 3dB Improvement On Above Floor |
| VERSUS |  |  |  |
| Test 3 <br> Bare Test Floor Without PhoneStar | 15mm T\&G OSB Board $235 \times 50 \mathrm{~mm}$ Timber Joists on Hangers $10 \mathrm{~kg} / \mathrm{M}^{3}$ insulation between joists 100 mm $2 \times 12.5 \mathrm{~mm}$ Acoustic Plasterboard | $41(-7) \mathrm{dB}$ <br> Note: The higher the result the better | 75 dB <br> Note: The lower the result the better |
| England \& Wales Building Regulations for Sound Document E | Separating Floors \& Stairs <br> New Build Dwelling Houses \& Flats Conversions or Change of Use | 45dB minimum 43dB minimum | 62dB maximum 64dB maximum |

