

Soundproofing Timber Ceilings



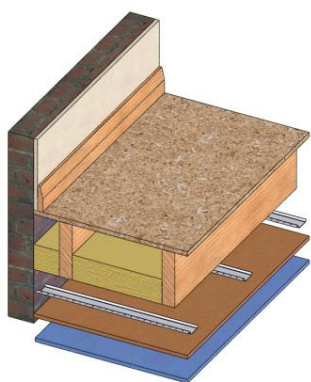
Acoustic Insulation

Improvement Expected when Upgrading Timber Joist Ceilings with PhoneStar (Previously branded as Phonewell)

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

Option 1 - Upgraded Ceiling with Mineral Wool in the Cavity

Description of Floor / Ceiling Construction



15mm T&G OSB Board
235 x 50mm Timber Joists on Hangers
10kg/M³ insulation between joists - 100mm
With / Without Existing Plasterboard *
16mm Resilient Bars
15mm **PhoneStar Acoustic Insulation**
1 or 2 layers x 12.5mm Acoustic
Plasterboard

* **Note:** Subject to Local Building Fire Regulations
for Ceilings in Separating Dwellings

Expected Airborne DnT,w

58 - 60 dB excl Ctr

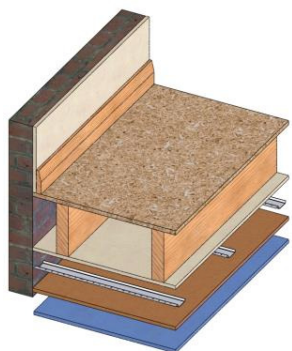
= 17 to 19 dB
Improvement
On Basic Test Floor /
Ceiling

Expected Impact LnT,w

59 to 61 dB

= 14 to 16 dB
Improvement
On Basic Test Floor /
Ceiling

Option 2 - Upgraded Ceiling without any Mineral Wool in the Cavity



As Above, but without any mineral wool in
the cavity

Expected Airborne DnT,w

56 - 58 dB excl Ctr

= 15 to 17 dB
Improvement
On Basic Test Floor /
Ceiling

Expected Impact LnT,w

59 to 61 dB

= 14 to 16 dB
Improvement
On Basic Test Floor /
Ceiling

COMPARED TO: Basic Test Floor / Ceiling Without PhoneStar

Tested in Sound Research
Laboratory (SRL)

15mm T&G OSB Board
235 x 50mm Timber Joists on Hangers
10kg/M³ insulation between joists - 100mm
2 x 12.5mm Acoustic Plasterboard

Airborne Rw (Ctr)

41 (-7) dB = 34 dB

Note: The higher the
result the better

Impact Ln,w

75 dB

Note: The lower the
result the better

England & Wales Building Regulations for Sound - Approved Document E

Separating Floors & Stairs

New Build Dwelling Houses & Flats
Conversions or Change of Use

Airborne DnT,w (+Ctr)

45dB minimum
43dB minimum

Impact LnT,w

62dB maximum
64dB maximum