



# Field Floor Impact Insulation Test

Eric Huang has over 20 years of professional experience and has worked on a variety of projects, including residential homes, high-rise towers, and commercial developments. Conducted hundreds of floor impact test (Tapping test) in southeast Queensland (Australia) high-rise buildings.

## Testing Procedure

Measurements of floor impact sound insulation were carried out in general accordance with **ISO 16283-2:2020 – Acoustics – Field measurement of sound insulation in buildings and of building elements – Part 2: Impact sound insulation.**

- The impact sound pressure levels were measured in the receiving room using a calibrated sound level meter
- An ISO-compliant tapping machine positioned on the finished floor/ floor sample (min 1m x 1m) of the source room.
- Measurements were conducted at multiple microphone positions to obtain spatially averaged sound pressure levels.
- The reverberation time (RT) of the receiving room was also measured to enable standardisation of the results. RT were measured by the impulse method (popping balloons).
- The standardised impact sound pressure level ( $L'_{nT}$ ) was calculated by normalising the measured impact sound levels to a reference reverberation time in accordance with ISO 16283-2.

The single-number rating,  $L'_{nT,w}$ , was determined in accordance with **ISO 717-2:2020 – Acoustics – Rating of sound insulation in buildings and of building elements – Part 2: Impact sound insulation** by comparing the measured results with the reference curve specified in the standard.

Please contact us for free, over the phone, for general acoustic advice.

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