

15. Study on Prediction Method of Flanking Transmission between Two Rooms

-Part II : Study on Influence of Incidence/Radiation Wall and Measure Way of Structure-born Sound from Facade-

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For the facade wall at the super high-rise multi-family dwelling often uses ALC panel. In this case, the sound insulation performance sometimes declines with the structure-born sound from the facade wall. Therefore, the influence and the measure way which the incidence and radiation area gives facade wall structure-born sound were experimentally reviewed. As a result, it got following conclusion.

- i) The incident area and the radiation area differ in the degree of the contribution to the sound insulation performance.
 - ii) As for the vibration at the facade wall (ALC) and inside wall, the vibration is attenuating straight. Also, the inclination depends on the frequency.
 - iii) As for the vibration of the inside wall by which the sound pressure level is contributed to, the integrating handling to have considered propagation attenuation must be done.
 - iv) In the inside wall foundation on the side of the source room, the change into the wood foundation and the LGS foundation from the gypsum lining of construction is valid with the sound insulation performance improvement.
- The improvement of the sound insulation performance can be gotten by providing a slit for the intersection part.

Key words : flanking transmission, sound insulation performance, ALC panel, structure-born sound