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AIRBORNE ISOLATION MEASUREMENTS BY IMPULSE TECHNIQUE

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The measurement of airborne isolation in building constructions is possible in the time domain by using noises of short duration, such as the firing of a powder cartridge by an alarm pistol, and by using a real time analyzer as a data processing equipment.

The use of an impulsive noise makes it possible to lighten considerably the measuring equipment, to make the measurement in the presence of an important background noise and to reduce the measurement and analysis times while maintaining precision.

A detailed study is presented of the parameters affecting the precision of the results obtained which has made it possible to optimize the procedure and to obtain a scatter of the results amounting to less than ± 0.2 dB(A).

The comparison between the results obtained by using a permanent noise method and this method shows that the difference is still less than 2 dB(A).

