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EXPERIMENTAL STUDY ON NOISE REDUCTION DUE TO DAMPING TREATMENTS

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ABSTRACT

Recently, a lot of damping material has been used for the control of structure-borne sound in electrical and automobile manufacturing, etc. in Japan. However, the accurate prediction of noise reduction by damping treatments is not easy from the catalogue data only.

In this report, the sound radiated from rectangular plates and cubes made of damped steel plates with various loss factors is examined. Sound pressure levels radiated from these testing pieces are measured on the near field and the loss factors of the complex test plates are measured by the free beam testing method. The relation between the sound pressure levels and the loss factors of the test plates is discussed with regard to these different figures of the structures.

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