

## Transmission Loss Analysis for Panels Laminated with Felt and Film

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**Abstract :** To reduce the interior noise of cars in high-frequency region, sound proof materials are laminated with the body panels and the interior trims. Therefore, sound proof properties of the laminates play an important role for the efficient acoustical design. A program code which predicts both sound absorption properties and sound insulation properties of the laminates are developed. This program code is used for transfer matrix method by Biot theory. This report described the outline of this program code, and the calculation results almost agreed with the experimental results.

**Keywords :** porous media, transmission loss, Biot theory, transfer matrix method

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