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概要
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Enhancement is necessary in the acoustic insulation performance with respect to the high-frequency interior noise
of automobiles. In this study, to improve the sound insulation in the overall acoustic insulation of a rubber sheet
laminated to urethane, we used a waffle shape on the urethane surface and then examined the resulting acoustic
change. We performed the test using a simple sound insulation performance measurement device and compared its
results with the vibration sound analysis results obtained using a finite element model. We used the Biot model for
the urethane using individually calculated parameters. In addition, with respect to the sound and vibration inputs,
we calculated the sound performance changes resulting from differences in the waffle shape (rib width, rib interval).
As a result, in a certain frequency band, we confirmed that the sound insulation performance had improved.
機械・精密システム工学科　論文発表
【発表者について】アンダーラインは本学教員および研究員、※は大学院生、卒研生または卒業生
Sound Insulation Analysis of Automotive Soundproof Material using Urethane and Rubber
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