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Development of Material and Form for Vibration Isolation Gloves (Second Report)

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概要

Anti-vibration gloves are used as protective equipment for vibration disorder, but due to the thick anti-vibration materials of gloves, poor workability such as difficulty in manual work using fingertips was complained by operators. Therefore, in consideration of workability, we aimed to develop protective equipment whose vibration proof material's thickness is thinner than the current one, but has the same vibration isolating performance.

We used urethane as the vibration-proof material. By considering the shape of the urethane sheet and using FEM to design, we made six types of gloves with different sheet shape. The gloves were measured and analyzed for their vibration characteristics, and if they have vibration-proofing performance (vibration transmission ratio of less than 1.0) with a thickness of on their entire body, they could be developed.