

## Effect of Machined Surface Shape on Sound Reflection

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Sound reflection of materials is influenced by many factors, e.g. by material type, density, thickness, porosity, angle of sound incidence, surface shape and excitation frequency of acoustic wave. The aim of the paper is to investigate the surface shape effect of expanded polyvinylchloride material on sound reflection. For this reason polyvinylchloride samples of different surface shapes and perforations were produced on universal and CNC machine tool. The material ability to reflect sound of the investigated polyvinylchloride samples was experimentally measured by means of the transfer function method on Kundt's impedance tube. The material samples were subsequently compared in terms of their sound reflection. It was verified that the highest sound reflection was obtained in case of the smooth surface polyvinylchloride sample.

**Keywords:** Sound Reflection, CNC Milling, Surface Shape, Excitation Frequency, Polyvinylchloride.

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