

The Optimization Design of Sound Absorbing for Automotive Interior Material

Authors : Un-Hwan Park, Jun-Hyeok Heo, In-Sung Lee, Tae-Hyeon Oh, Dae-Gyu Park

Abstract : Nonwoven fabric such as an automobile interior material becomes consists of several material layers required for the sound-absorbing function. Because several material layers, many experimental tuning is required to achieve the target of sound absorption. Therefore, a lot of time and money is spent in the development of the car interior materials. In this study, we present the method to predict the sound-absorbing performance of the various layers with physical properties of each material. and we will verify it with the measured value of a prototype. If the sound absorption can be estimated, it can be optimized without a number of tuning tests of the interiors. So, it can reduce the development cost and time during development

Keywords : automotive interior material, sound absorbing, optimization design, nonwoven fabric

Conference Title : ICAMAME 2016 : International Conference on Aerospace, Mechanical, Automotive and Materials Engineering

Conference Location : Venice, Italy

Conference Dates : August 08-09, 2016