

Analysis of the Acoustic Performance of Vertical Internal Seals with Pet Wool as NBR 15.575-4NO Green Towers Building-DF

Authors : Lucas Aerre, Walleson Faria, Roberto Pimentel, Juliana Santos

Abstract : An extremely disturbing and irritating element in the lives of people and organizations is the noise, the consequences that can bring us has a lot of connection with human health as well as financial and economic aspects. In order to improve the efficiency of buildings in Brazil in general, a performance standard was created, NBR 15.575 in which all buildings are seen in a more systemic and peculiar way, while following the requirements of the standard. The acoustic performance present in these buildings is one such requirement. Based on this, the present work was elaborated with the objective of evaluating through acoustic measurements the acoustic performance of vertical internal fences that are under the incidence of aerial noise of a building in the city of Brasilia-DF. A short theoretical basis is made and soon after the procedures of measurement are described through the control method established by the standard, and its results are evaluated according to the parameters of the same. The measurement performed between rooms of the same unit, presented a standardized sound pressure level difference ($D_{nT, w}$) equal to 40 dB, thus being classified within the minimum performance required by the standard in question.

Keywords : airborne noise, performance standard, soundproofing, vertical seal

Conference Title : ICSECM 2017 : International Conference on Structural Engineering, Construction and Management

Conference Location : Amsterdam, Netherlands

Conference Dates : July 10-11, 2017