Project Factsheet

Sound.Structural.Engineering industry project

ecoplus green building cluster of lower austria

Project description

For external walls with thermal insulation composite systems or curtain wall facade systems there are currently only rough estimations possibilities for methodical dimensioning of noise protection and due little generally accessible data.

A frequency-dependent prognosis of sound insulation of an exterior wall with built-in components such as windows and doors is not possible at present, if not frequency-dependent data from airborne sound insulation measurements of all partial elements are available, since the current standardized procedure on an estimation by means of singular data.

The aim of Sound.Structural engineering is therefore to develop a suitable, predictive model that is compatible with a contemporary data base as a prerequisite for a generally applicable planning tool. Compared to the current situation it should be considerably more flexible and clearly more accurate in terms of dimensioning of the sound insulation of external walls with composite thermal insulation systems and curtain-type facades including consideration of window and door installations.

In the development of the calculation model, the increasing importance low frequency range (less than 100 Hz), as well as the scatter of the characteristic values of the investigated construction products has to be taken into account in order to determine suitable derivation uncertainty coefficients for the planning forecast.

The Green Building Cluster Lower Austria initiated this project together with the companies and organisations involved in the project.

Further information

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Project period

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R&D-Partners

+ TGM Versuchsanstalt Akustik & Baupyhsik (TGM Research Institute for Acoustics and Building Physics)
+ TU Wien, Institut für Hochbau und Technologie, Forschungsbereich für Bauphysik und Schallschutz (University of Technology Vienna)

Co-Financing Partner

+ Wienerberger Ziegelindustrie GmbH
+ Verband österreichischer Beton- und Fertigteilwerke (VÖB)
+ Eurofox GmbH
+ ROCKWOOL Handelsgesellschaft m.b.H.
+ Steinbacher Dämmstoff GmbH
+ Saint-Gobain Isover Austria GmbH
+ Knauf Insulation
+ Blueboard - Lasselsberger GmbH
+ WKO, Geschäftsstelle Bau
+ Saint-Gobain Weber Terranova GmbH
+ Stauss-Perlite GmbH
+ Öster. Fachverband für hinterlüftete Fassaden (ÖFHF)
+ PREFA Aluminiumprodukte GmbH
+ Mischek ZT
+ Dipl.-Ing., Dipl.-WT. Georg Schrattenecker, MBA
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