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Research area: Product aims

End products made of paper, paperboard and board // Other

Key words:

Insulation, renewable raw materials

Title:
More than just insulation – Additional benefits of insulation materials made from renewable raw resources

Background/Problem area

Insulation materials made from renewable raw materials help to relieve pressure on the environment by conserving resources and also make a significant contribution towards a reduction in CO_2 emissions. Under the leadership of the Fraunhofer WKI, a consortium of twelve research institutes is conducting interdisciplinary research into holistic solutions in order to significantly increase the application of insulation materials made from renewable raw materials

Objectives/Research results

The project aims at determining the material parameters which, for example, can reduce complex component testing in sound insulation and fire protection. Furthermore, the project intends to remove real application constraints. This applies, for example, to standards and other building regulations which came into being in times in which insulation materials made from renewable raw materials barely existed. A further objective is therefore the development of measurement procedures which take better account of the specific properties of insulation materials made from renewable raw materials. In order to demonstrate the additional benefits of the insulation materials, the project participants also carry out sustainability evaluation.

The six working areas of the project, “Fire protection”, “Sound insulation”, “Thermal insulation”, “Sustainability evaluations”, “Moisture protection” and “Emissions”, lead to a holistic overview of the subject. PTS is involved in the working area “Thermal insulation”. Here the project partners investigate the moisture-dependent thermal conductivity and verify possibilities for reducing this.

Application/Economic benefits

The project results will foster the applicability of these insulation materials for manufacturers, planners and processors.

Period of time: 01.12.2016 – 30.11.2019

Remarks

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