RESEARCH ON THE THERMAL CONDUCTIVITY OF COMPOSITES MADE OF ECOLOGICAL FIBERS

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**Abstract:**  
The paper presents the results of the research conducted to obtain new ecological composites that could be used for thermal insulation of buildings. The obtained panels are made of ecological materials that do not affect the human health (wood chips and fibers, host of hemp, textile fibers, wool and reed). The testing was performed in eight points, for an internal temperature of $\Delta T=20^\circ C$ and an outdoor temperature situated in the range of $-20^\circ C-20^\circ C$). As the tests conducted, the results showed that the best insulating capacity belonged to a composite which has wood fiber and wool in its structure, followed a composite which has wood chips, hemp particles and wool in its structure.

**Key words:** ecological composites; thermal conductivity; thermal insulation.

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