

Diagnostic of insulated building walls of old restored constructions using active infrared thermography

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Abstract

In this study, an experimental protocol for the diagnostic of insulating building walls of old restored constructions is developed. Active infrared thermography in step heating mode is used to estimate thermal resistance of different commercial multi-layered panels. The influence of the heating measurement duration is investigated. Finally the combination of heat transfer modeling based on thermal quadrupoles and asymptotic approach with identification procedure leads to quite satisfactory estimated thermal resistance in most of the investigated cases.

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