

Contribution to fire safety of eco-efficient earthen-based masonry walls

Summary

This work at different scales will make it possible to define the evolution of earthen masonry mortars performance with temperature as a function of several mix-design parameters. The effect on the mortar formulation on the masonry, with and without the protection of a plaster, and as a function of moisture will be studied.

The understanding of the mechanisms that can lead to thermal instability will make it possible to classify the studied earth-based products according to their sensitivity to the spalling phenomenon, to provide decision-making elements to the control offices and thus contribute to the implementation of regulatory texts. EUTOPIA Scholarship with CY Cergy Paris University (CY), Laboratory of Mechanics and Materials of Civil Engineering (L2MGC) as home institution, and NOVA FCT and CERIS as host institution.

Keywords

Earth-based masonry mortar, fire safety, earth blocks masonry, earth plaster.



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