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ATELIER / WORKSHOP / TALLER : INGÉNIERIE, TECHNIQUES  
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## HYGROTHERMAL PROPERTIES OF EXTRUDED EARTH BRICKS

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This article focuses on the study of hygrothermal properties of five extruded earth bricks produced by several French brickworks. The thermal conductivity, the water vapor permeability and sorption kinetics underline the highly anisotropic behavior of the bricks directly linked to the extrusion direction during the manufacturing process. The results confirm that the extrusion process has a major influence on the orientation of clay platelets and impacts the hygrothermal properties. The brick manufacturers could take advantage of these results to improve the hydrothermal performances of the walls by adapting the laying of the bricks and the geometry considering the extrusion direction.



The unfired clay bricks tested