

Fired clay bricks made by adding wastes: Assessment of the impact on physical, mechanical and thermal properties

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The addition of residues into clay matrix has been widely reported and reviewed during last decade. The heterogeneity of wastes and the lack of detailed information make difficult to provide an overall framework for comparing results. With the aim of showing an acceptable estimation of fired clay bricks properties, when wastes are added, this paper summarizes raw materials characterization and methods of most cited papers. Despite mechanical, physical and thermal properties highly depend on several parameters when residues are classified and results are related to the relative variation of density, a good correlation, between different papers, is found. © 2016 Elsevier Ltd

Bulk density

Compressive strength

Lightweight bricks

Thermal conductivity

Wastes bricks

Water absorption

Compressive strength

Thermal conductivity

Thermodynamic properties

Water absorption

Bulk density

Cited papers

Fired clay bricks

Good correlations

Lightweight brick

Materials characterization

Mechanical , physical and thermal properties

Mechanical and thermal properties

Brick