Research Title The research and development lightweight clay brick by using waste from industry factory (phase 1)
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The objective of this study were recycling of powder from industry factory waste to improve properties of lightweight clay bricks. The amount of powder from the mill stone waste added to lightweight clay brick were varied by 10, 20, 30, 40 % by volume, and variation of firing temperature by 1000 , 1100 °C. The results showed that more content of powder from industry factory waste was added, the higher values of porosity and water absorption was observed, in contrast to the reduction of thermal conduction and bulk density. The increase in firing temperature affected the decrease of porosity and water absorption, for powder from industry factory added 40% and firing temperature 1000 °C the best properties as 1.43 g/cm^3 of bulk density, 12.15 MPa of compressive strength, 0.48 W/mK of thermal conductivity, and 21.20 % of water absorption