

Characterization and Evaluation of South West Tunisian Clay Types as Insulation of Building Materials

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Abstract : This study examined the geotechnical, mineralogical, thermal and physical characterization of clays in south-west Tunisia. Its aims are to elaborate an insulator material based on the clay used in the field of building materials. The geotechnical study showed that the clay studied is characterized by a high degree of plasticity of 30.83%. High mineralogical findings showed that the sample consisted mainly of kaonolite and other clay minerals. The thermal and physical properties of the different samples are obtained by mixing clays, which indicates a promising future for the use of this type of clays in the production of insulating building materials.

Keywords : clay, energy-saving, insulator material, and South-West Tunisia.

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