

Generalized Model Estimating Strength of Bauxite Residue-Lime Mix

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Abstract : The present work investigates the effect of multiple parameters on the unconfined compressive strength of the bauxite residue-lime mix. A number of unconfined compressive strength tests considering various curing time, lime content, dry density and moisture content were carried out. The results show that an empirical correlation may be successfully developed using volumetric lime content, porosity, moisture content, curing time unconfined compressive strength for the range of the bauxite residue-lime mix studied. The proposed empirical correlations efficiently predict the strength of bauxite residue-lime mix, and it can be used as a generalized empirical equation to estimate unconfined compressive strength.

Keywords : bauxite residue, curing time, porosity/volumetric lime ratio, unconfined compressive strength

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