

Investigation on the Thermal Properties of Magnesium Oxychloride Cement Prepared with Glass Powder

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Abstract : The objective of this study was to investigate the thermal property of magnesium oxychloride cement (MOC) using glass powder as a substitute. Glass powder by proportion 0%, 5%, 10%, 15% and 20% of cement's weight was added to specimens. At the end of a drying time of 28 days, thermal properties, compressive strength and bulk density of samples were determined. Thermal property is measured by Photothermal Deflection Technique by comparing the experimental of normalized amplitude and the phase curves of the photothermal signal to the corresponding theoretical ones. The findings indicate that incorporation of glass powder decreases the thermal properties of MOC.

Keywords : magnesium oxychloride cement (MOC), photothermal deflection technique, thermal properties, Ddensity

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