

study On The Properties Of Mortar Using Ordinary Portland Cement Clinker As Fine Aggregate

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The fresh properties test results showed that adding anhydrous gypsum was effective to improve the flowability of the mortar at low substitution rates.

The cement industry in Japan has been using industrial waste and by-products as raw materials in the production of cement clinker.

In recent years, there has been little increase or decrease in waste generation in Japan.

However, domestic demand for cement has been declining.

It is important to maintain the amount of waste received by the cement industry in order to reduce the industrial waste.

Therefore, it is necessary to develop new uses for clinker other than cement.

In this study, it was investigated the properties of mortar using ordinary Portland cement clinker as fine aggregate.

In addition, in order to improve fresh properties, gypsum anhydride was mixed as a binder.

In the hardened mortar tests, clinker for ordinary Portland cement was replaced by 0%, 25%, 50%, 75%, and 100% by volume with respect to fine aggregate.

With the Increasing substitution ratio, increased compressive strength and reduced drying shrinkage were confirmed.