
Study on Fire Resistance of Reinforced Concrete Columns with Limestone Coarse Aggregate

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The inclusion of polypropylene fiber is effective for suppressing the explosion of high-strength concrete caused by fire. However, few experiments have examined the fire resistance of high-strength concrete using limestone coarse aggregate.

Therefore in the design strength of 80 to 100N/mm² high-strength concrete using various coarse aggregate, we experimentally investigated the fire resistance of reinforced concrete columns. As a result, it was confirmed that the fire resistance in a column of high-strength concrete using limestone coarse aggregate is secured by mixing polypropylene fiber appropriately.