

Freezing and Thawing Resistance of Concrete Incorporating Highly Active Rice Husk Ash

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In this study, the freezing and thawing resistance of the concrete incorporating the highly active rice-husk ash (RHA) was investigated, and the bubble structure in RHA concrete was conducted as well as. The results show that: 1) With replacement of 10% and 20% of the cement by RHA, the concrete present high resistance to the freezing and thawing, nevertheless the concrete containing 30% RHA has low resistance to the freezing and thawing; 2) The bubbles and the air content after hardening in concrete have an obviously effect on the freezing and thawing of concrete. 3) Concrete has a spacing factor of 300 μ m and 4.5% of air content after hardening above can be used to obtain the high resistances to the freezing and thawing.