Evaluation of Neutralization Rate of Blast-furnace Slag Cement Concretewith Due Consideration of Actual Environments

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Mortar or concrete specimens were prepared using fine powder of blast-furnace slag with various mix proportions. The accelerating neutralization was examined under various curing and testing conditions, considering the environment of an actual structure. The examination showed that the neutralization rate of the blast furnace slug cement concrete under the evaluated conditions was higher than that under the actual conditions. It was also found that the neutralization rate of the blast-furnace slag cement concrete could be evaluated based on the surface structure compressive strength affected by the curing conditions and the amount of calcium hydroxide affected by the amount of blast-furnace slag.