

Research about utilization technology of concrete for dam that uses energy-saving cement

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Development of CO₂ emission control technique has been recently required for preventing global heating. Therefore, this study is conducted for analyzing influencing factor of CO₂ emission in the construction of concrete dam, and for suggesting characteristics as well as utilization technology of concrete for dam that uses energy-saving cement that has increased replacement rate of admixtures such as fly ash and slag.

In 2002, intensity test and durability test of concrete for dam that used energy-saving cement were conducted, specific reduction rate of CO₂ gross emissions that occurred as a result of admixture replacement was calculated, and the summary was made in the final year.

The outcome of this study enabled to quantitatively assess the reduction of CO₂ gross emissions, and it enabled to design the dam concrete compound that used energy-saving cement.

Keywords: dam concrete, admixture, compressive strength test, freeze-thaw test, CO₂ reduction effect