
Basic study on application of recycled aggregate concrete using high content of ground granulated blast-furnace slag

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Recycled aggregate and roadbed materials absorb and fix CO₂ not only during the service life of the structure but also during the recycling process. Among the recycled aggregates, recycled aggregate L, although of lower quality than M, is expected to fix a larger amount of CO₂ because of the large amount of adhered mortar. Therefore, in this study, we aimed at the practical use of recycled aggregate concrete with high blast furnace slag fine powder content in low-carbon concrete equivalent to blast furnace cement Class C. We confirmed the basic properties of the concrete in laboratory experiments. The results showed that the influence of the combination of aggregates was small, and good fresh properties and strength development were obtained.