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座長:麓隆行(土木),今本啓一(建築)
Fri. Jun 28, 2024 1:15 PM - 3:00 PM Room 1 (小展示室A)

[1212]FRESH AND HARDENED PROPERTIES OF ALKALI-ACTIVATED CONCRETE INCORPORATING BLAST FURNACE SLAG AND CASTING SAND DUST

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Keywords: alkali-activated concrete、casting sand dust utilization、waste material recycling、compressive strength analysis、concrete workability

This study examines the inclusion of casting sand dust in alkali-activated concrete. Challenges with workability and strength were improved by replacing Fly Ash with Blast Furnace Slag in the mix. Improved results were observed with a 30% replacement of casting sand dust in concrete, showing a strength of 35 MPa, and with a 40% replacement in mortar, which exhibited a strength of 43 MPa after seven days. This research underscores the practicality of casting sand dust in concrete mixtures, aiding in the use of industrial by-products.

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