

Identifying Chemical Tracers In FlyAsh



Description and Benefit

This innovation introduces a comprehensive method for identifying and quantifying cementitious components in concrete using chemical tracers. Lithium and Zirconium serve as indicators for Type II cement, Cobalt and Antimony trace Class C fly ash, and sulfur compounds signal slag cement, confirmed through odor, microscopic analysis, or discoloration during hydration. Additionally, zircon concentration analysis enables precise calculation of fly ash content by converting zircon to zircon oxide and applying formula weights, overcoming reliance on mix design estimates. These techniques allow rapid, in-house testing without costly instrumentation or external labs, reducing safety risks, costs, and delays. By providing DOTs and municipalities with an efficient model for diagnosing pavement issues and validating mix designs, this approach streamlines concrete performance evaluation and enhances project reliability.

For More Information Contact

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