



Productivity

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Standard Test Method for Determination of Total Sulfur in Fly Ash

<https://youtu.be/GEU3RIGUT-8>

Description and Benefit

Fly ash is a by-product of coal fired power plants that has been used in concrete for decades as a green product alternative to Portland cement. It enhances concrete by providing longer hydration periods, higher strengths and improved durability. Research has been conducted in the last 10 years with the assistance of Missouri Science and Technology that fly ash can be substituted at higher rates and contribute the same to better performance. One of the tests performed to measure quality in fly ash is sulfur. High amounts of sulfur in fly ash will cause a retarding effect in concrete thus curtail its performance. Previous test methods for determining the correct amount of sulfur proved to show less results compared to what this innovation can determine. This innovative approach to testing sulfur amounts saves the department time, money and simplifies work. Time and money are saved with MoDOT having the resources available for in-house testing. Work is simplified since testing would be minimized by only testing once with a certified reference material to verify results. This method is not used by any other state DOT to measure sulfur in fly ash.

For More Information Contact

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