

## SECTION 753 FLY ASH

Fly ash shall conform to AASHTO M 295 Class C or F, including the optional requirements, except as modified by the following:

- Loss on ignition . . . . . 2.0% Max.
- Moisture content . . . . . 2.0% Max.
- Available alkalis as Na<sub>2</sub>O . . . . . 1.5% Max.\*
- \*Air permeability . . . . . eliminate the requirement

These modifications shall not apply to fly ash used in slurries for mudjacking or undersealing operations.

Fly ash shall be from approved base loaded electric generating plants using a single coal source. Plants using a limestone injection process for controlling air pollutants are not acceptable. Fly ash from the start up and shut down of the plant shall not be used.

\* Available alkalis up to 2.0 percent may be used, provided mortar expansion test results at 14 days is less than or equal to that of the control sample. The expansion test shall be run in accordance with modified ASTM C 441. The control sample shall be made using cement that will be used on the project. The test sample shall be made using cement and fly ash that will be used on the project.

**Number of Tests:** Each sample representing 400 tons (350 metric tons) or the sample representing the quantity sampled when this is less than 400 tons (350 metric tons) shall be tested for the following:

1. Fineness - No. 325 sieve analysis (45F m sieve analysis).
2. Moisture content.
3. Specific gravity.
4. Loss on ignition.
5. Soundness.
6. All other physical tests and chemical determinations shall be made on composite samples representing each 2000 tons (1750 metric tons). This composite sample shall be prepared by combining equal parts of five consecutive samples, each representing 400 tons (350 metric tons).