

## Part 642 – Specifications

### Chapter 3 – National Standard Material Specifications

#### Material Specification 532—Supplementary Cementitious Materials

A. Scope

This specification covers the quality of supplementary cementitious materials for concrete.

B. Quality

- (1) Fly ash used as a partial substitution of Portland cement shall conform to the requirements of ASTM C618, Class C or F except the loss on ignition shall not exceed 3 percent, unless otherwise specified. Lot-to-lot variation in the loss on ignition shall not exceed 1 percent. When specified, fly ash shall conform to one or more of the supplementary optional physical requirements listed in ASTM C618.
- (2) Natural pozzolan used as a partial substitution of Portland cement shall conform to the requirements of ASTM C618, Class N including the optional requirements for uniformity and effectiveness in controlling ASR. Class N pozzolan for the use in mitigating Alkali-Silica Reactivity shall have a Calcium Oxide (CaO) content of less than 13 percent and total equivalent alkali content less than 3 percent.
- (3) Blast-furnace slag used as a partial substitution of Portland cement shall conform to ASTM C989 for ground granulated blast-furnace slag.
- (4) Silica fume used as a partial substitution of Portland Cement shall conform to ASTM C1240.