

2006 – SILICA FUME

SECTION 2006

SILICA FUME

2006.1 DESCRIPTION

This specification covers silica fume, or microsilica, that may be used as a partial replacement for portland cement and blended hydraulic cement in concrete, when allowed by other parts of the Contract Documents. Silica fume is a by-product resulting from the reduction of high purity quartz with coal in electric arc furnaces in the manufacture of silicon and ferrosilicon alloys.

2006.2 REQUIREMENTS

Provide material which complies with ASTM C 1240.

2006.3 TEST METHODS

As specified in ASTM C 1240.

2006.4 PREQUALIFICATION

a. Sources of silica fume must be prequalified. Submit certified analyses of the quality control tests completed during the 6-month period immediately before the prequalification request. Certified analyses are defined as the range of test results of the properties specified above on representative materials tested by a laboratory which is regularly inspected and certified by the Cement and Concrete Reference Laboratory (CCRL). Include mill certifications for the raw material.

b. Forward the certified analysis to the Bureau Chief of Construction and Materials. If the material satisfies all requirements, the source will be placed on a prequalified list.

c. Verification samples will be taken by each District, at the rate of one per year, for each silica fume producer supplying material to that District's projects.

d. Semi-annual results of the producer's quality control testing, as defined above, are required to be forwarded to the Bureau of Construction and Materials to maintain status on the prequalified list. Sources will remain on the prequalified list, so long as verification samples and semi-annual test results complies with all requirements, and indicate acceptable quality control.

2006.5 BASIS OF ACCEPTANCE

a. Prequalification as specified in **subsection 2006.4**.

b. Receipt and approval of a Type C certification as specified in **DIVISION 2600**.