Designation: D5370 – 14

Standard Specification for Pozzolanic Blended Materials in Construction Applications[1]

This standard is issued under the fixed designation D5370; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers pozzolanic blended material for use in construction applications where the properties normally attributed to coal fly ash and raw or calcined pozzolans, like silica fume, and slag cement.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C25 Test Methods for Chemical Analysis of Limestone, Quicklime, and Hydrated Lime

C125 Terminology Relating to Concrete and Concrete Aggregates

C219 Terminology Relating to Hydraulic Cement

C311 Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete

C593 Specification for Fly Ash and Other Pozzolans for Use With Lime for Soil Stabilization

C618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete

C989 Specification for Slag Cement for Use in Concrete and Mortars

C1240 Specification for Silica Fume Used in Cementitious Mixtures

2.2 *EPA Standard:*[3]

EPA 9060 Total Organic Carbon

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *cement kiln dust*—the finely divided particulate matter carried from a cement kiln by the exhaust gases.

3.1.2 *pozzolanic blended material*—a pozzolan resulting from the intimate and uniform blend of two or more finely divided materials.

3.2 *Definitions*—Other terms used in this specification are defined in Terminologies C125 or C219 or Specifications C618, C989, and C1240.

4. Classification

4.1 The types of pozzolanic blended materials covered by this specification are an intimate and uniform blend of two or more of the following materials: Type F – Class F fly ash; Type C – Class C fly ash; Type CKD – Cement kiln dust; Type S – ground granulated blast furnace slag; Type SF – Silica fume; Type M – Metakaolin.

4.2 The pozzolanic blended material shall be labeled in order of highest mass of materials. For example, a 60 % by mass Class F fly ash with 30 % by mass slag and 10 % by mass cement kiln dust would be termed Type FSCKD.

5. Ordering Information

5.1 Include the following information in orders for blended pozzolan meeting the requirements of this specification:

5.1.1 The specification designation ASTM Specification D5370,

5.1.2 The specification date, if other than the latest published version,

5.1.3 The quantity of blended pozzolan desired, and the classification desired,

5.1.4 A statement as to specific requirements or intended use of the blended pozzolan, and

5.1.5 Request for the manufacturers certification, if desired.

6. Materials and Manufacturer

6.1 The pozzolanic blended material is the result of an intimate and uniform blend.

NOTE 1—The attainment of an intimate and uniform blend of two types of fine material is difficult. Consequently, adequate equipment and controls must be provided by the manufacturer. The purchaser should

[1] This specification is under the jurisdiction of ASTM Committee D34 on Waste Management and is the direct responsibility of Subcommittee D34.03 on Treatment, Recovery and Reuse.

Current edition approved May 1, 2014. Published June 2014. Originally approved in 1996. Last previous edition approved in 2013 as D5370–06 (2013). DOI: 10.1520/D5370-14.

[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from United States Environmental Protection Association (EPA), Ariel Rios Bldg., 1200 Pennsylvania Ave., NW, Washington, DC 20460.