



Designation: C 219 – 03

Standard Terminology Relating to Hydraulic Cement¹

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1. Scope

1.1 This terminology defines terms relating to hydraulic cements, their components, characteristics, properties, and the testing thereof. Some terms may have wider application than just to hydraulic cement.

1.2 See individual standards for terms applicable primarily therein, including meanings that may be more restrictive than those given here, and for explanations and descriptions of terms as they apply to those standards.

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:

- C 11 Terminology Relating to Gypsum and Related Building Materials and Systems²
- C 51 Terminology Relating to Lime and Limestone (as Used by the Industry)²
- C 125 Terminology Relating to Concrete and Concrete Aggregates³
- C 294 Descriptive Nomenclature for Constituents of Concrete Aggregates³
- C 1328 Specification for Plastic (Stucco) Cement²
- C 1329 Specification for Mortar Cement²

2.2 ACI Standard:

- ACI 116R Cement and Concrete Terminology⁴

3. Significance and Use

3.1 In definitions of cements, ingredients are cited only when they are inherent to the definition, for example portland-pozzolan cement. For ingredients and their quantity limits, if any, that are permitted or prohibited by a specification for a particular cement, see the applicable specification for that cement.

3.2 In definitions of materials including cements, the method of production is included only if it is inherent to the definition.

3.3 Related terms may be found in other terminology documents such as Terminology C 11, Terminology C 51, Terminology C 125, and ACI 116R.

4. Terminology

addition, *n*—a material that is interground or blended in limited amounts into a hydraulic cement during manufacture.

DISCUSSION—Two classes of additions are recognized as defined below.

functional addition, *n*—an addition introduced to modify one or more properties of a hydraulic cement.

air-entraining addition, *n*—a functional addition that will entrain air in mortar or concrete.

processing addition, *n*—an addition introduced to aid in the manufacture or handling, or both, of a hydraulic cement.

air-entraining addition, *n*—see **addition**; **functional addition**; **air-entraining addition**

air content, *n*—of freshly mixed mortar the volume of air (and other gases) in mortar, expressed as a percentage of total volume of mortar.

air-entraining hydraulic cement, *n*—a hydraulic cement containing an air-entraining addition in such amount as to cause air to be entrained in mortar within specified limits when measured by the prescribed method.

alkali equivalent, *n*—deprecated term; see **equivalent alkalis**.

aluminous cement, *n*—deprecated term.

anhydrite, *n*—see **calcium sulfate**.

blast-furnace slag, *n*—the nonmetallic product, consisting essentially of silicates and aluminosilicates of calcium and other bases, that is developed in a molten condition simultaneously with iron in a blast furnace.

blended hydraulic cement, *n*—a hydraulic cement consisting of two or more inorganic constituents (at least one of which is not portland cement or portland cement clinker) which separately or in combination contribute to the strength-gaining properties of the cement, (made with or without other constituents, processing additions and functional additions, by intergrinding or other blending).

¹ This terminology is under the jurisdiction of ASTM Committee C01 on Cement and is the direct responsibility of Subcommittee C01.91 on Terminology.

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² *Annual Book of ASTM Standards*, Vol 04.01.

³ *Annual Book of ASTM Standards*, Vol 04.02.

⁴ American Concrete Institute, PO Box 9094, Farmington Hills, MI 48333.