Designation: C 1364 – 03

Standard Specification for Architectural Cast Stone[1]

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1. Scope

1.1 This specification covers the physical requirements, sampling, testing, and visual inspection of architectural cast stone.

1.2 Units covered by this specification may be made from facing and backup mixtures or from a homogeneous mixture. Either wet cast or dry cast production methods may be used.

1.3 Surface textures, finish, color, or other special features should be specified separately by the purchaser.

1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.5 *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:*

A 615/A615M Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement[2]

C 33 Specification for Concrete Aggregates[3]

C 150 Specification for Portland Cement[4]

C 173 Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method[3]

C 231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method[3]

C 260 Specification for Air-Entraining Admixtures for Concrete[3]

C 494 Specification for Chemical Admixtures for Concrete[3]

C 618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete[3]

C 666 Test Method for Resistance of Concrete to Rapid Freezing and Thawing[3]

C 979 Specification for Pigments for Integrally Colored Concrete[3]

C 989 Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars[3]

C 1194 Test Method for Compressive Strength of Architectural Cast Stone[5]

C 1195 Test Method for Absorption of Architectural Cast Stone[5]

D 1729 Practice for Visual Appraisal of Colors and Color Differences of Diffusely Illuminated Opaque Materials[6]

D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates[6]

2.2 *ACI Standards:*

318 Building Code Requirements for Reinforced Concrete[7]

3. Terminology

3.1 *Definitions:*

3.1.1 *cast stone*, *n*—an architectural precast concrete building unit intended to simulate natural cut stone.

3.1.2 *dry cast concrete products*, *n*—manufactured from zero slump concrete.

3.1.3 *wet cast concrete products*, *n*—manufactured from measurable slump concrete.

4. Materials and Design

4.1 *Raw Materials*—Materials shall conform to the following specifications:

4.1.1 *Portland Cement*—Specification C 150.

4.1.2 *Aggregates*—Specification C 33, except for grading requirements.

4.1.3 *Coloring Pigment*—Specification C 979, except that carbon black pigment shall not be used.

4.1.4 *Reinforcement*—Specification A 615/A 615M.

4.1.5 *Chemical Admixtures*—Chemical admixtures shall conform to the following applicable specifications:

4.1.5.1 *Air Entraining Admixtures*—Specification C 260, except for dry cast concrete products.

4.1.5.2 *Water Reducing and Accelerating Admixtures*—Specification C 494.

[1] This specification is under the jurisdiction of ASTM Committee C27 on Precast Concrete Products and is the direct responsibility of Subcommittee C27.20 on Architectural and Structural Products.

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[2] *Annual Book of ASTM Standards*, Vol 01.04.

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

[4] *Annual Book of ASTM Standards*, Vol 04.01.

[5] *Annual Book of ASTM Standards*, Vol 04.05.

[6] *Annual Book of ASTM Standards*, Vol 06.01.

[7] Available from American Concrete Institute (ACI), P.O. Box 9094, Farmington Hills, MI 48333.