

Designation: C1364 - 10

Standard Specification for Architectural Cast Stone¹

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1. Scope

- 1.1 This specification includes the physical properties, sampling, testing, tolerance, and appearance requirements for 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 standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.
- 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:²

A615/A615M Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

C33 Specification for Concrete Aggregates

C150 Specification for Portland Cement

C173/C173M Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method

C231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method

C260 Specification for Air-Entraining Admixtures for Concrete

C426 Test Method for Linear Drying Shrinkage of Concrete Masonry Units

C494/C494M Specification for Chemical Admixtures for Concrete

C595 Specification for Blended Hydraulic Cements

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

C666/C666M Test Method for Resistance of Concrete to Rapid Freezing and Thawing

C979 Specification for Pigments for Integrally Colored Concrete

C989 Specification for Slag Cement for Use in Concrete and Mortars

C1157 Performance Specification for Hydraulic Cement

C1194 Test Method for Compressive Strength of Architectural Cast Stone

C1195 Test Method for Absorption of Architectural Cast Stone

D1729 Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials

D2244 Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates

2.2 ACI Standards:

318 Building Code Requirements for Reinforced Concrete³

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 *vibrant dry tamp (dry cast) products, n*—cast stone manufactured from zero slump concrete densely compacted by apparatus. (See Note 1.)
- 3.1.3 *wet cast products*, *n*—cast stone manufactured from measurable slump concrete consolidated by apparatus. (See Note 1.)

Note 1—Apparatus used in the production of cast stone may include automatic, semi-automatic, or manual devices that deploy internal or external vibration, vibrant tamping, vibration under pressure, centrifugal casting, or combinations of these techniques to achieve the specified physical properties.

4. Materials and Design

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

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 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 American Concrete Institute (ACI), P.O. Box 9094, Farmington Hills, MI 48333.