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## **Standard Specification for Adhered Manufactured Stone Masonry Veneer Units<sup>1</sup>**

This standard is issued under the fixed designation C1670/C1670M; 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.

### **INTRODUCTION**

The purpose of this standard is to establish the minimum product specifications for adhered manufactured stone masonry veneer units. These units are manufactured using a wet cast concrete mixture and finished to simulate stone, rocks found in nature, and other textures.

#### **1. Scope\***

1.1 This specification covers the minimum product requirements for adhered manufactured stone masonry veneer units applied as an adhered veneer to exterior and interior walls and structures suitable to receive units.

1.2 The property requirements of this specification apply at the time of delivery. This standard does not address the physical evaluation of installed units removed from service.

1.3 The units described by this specification are manufactured from a mixture of cement, normal or lightweight aggregates (or a combination of both), water, admixtures, other cementitious materials and other components which are wet-cast into shapes simulating the appearance of natural stone and other textures.

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.5 The text of this specification references notes and footnotes which provide explanatory material. These notes and footnotes shall not be considered as requirements of the standard.

1.6 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—When particular features are desired such as surface textures or color these features should be specified separately. Suppliers should be consulted as to the availability of units having the desired features.

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.03 on Concrete Masonry Units and Related Units.

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**\*A Summary of Changes section appears at the end of this standard**

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>2</sup>

**C31/C31M** Practice for Making and Curing Concrete Test Specimens in the Field  
**C33/C33M** Specification for Concrete Aggregates  
**C39/C39M** Test Method for Compressive Strength of Cylindrical Concrete Specimens  
**C140/C140M** Test Methods for Sampling and Testing Concrete Masonry Units and Related Units  
**C150/C150M** Specification for Portland Cement  
**C157/C157M** Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete  
**C207** Specification for Hydrated Lime for Masonry Purposes  
**C260/C260M** Specification for Air-Entraining Admixtures for Concrete  
**C330/C330M** Specification for Lightweight Aggregates for Structural Concrete  
**C331/C331M** Specification for Lightweight Aggregates for Concrete Masonry Units  
**C482** Test Method for Bond Strength of Ceramic Tile to Portland Cement Paste  
**C494/C494M** Specification for Chemical Admixtures for Concrete  
**C511** Specification for Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes  
**C595/C595M** 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/C979M** Specification for Pigments for Integrally Colored Concrete  
**C989/C989M** Specification for Slag Cement for Use in Concrete and Mortars  
**C1116/C1116M** Specification for Fiber-Reinforced Concrete  
**C1157/C1157M** Performance Specification for Hydraulic Cement  
**C1232** Terminology for Masonry  
**C1240** Specification for Silica Fume Used in Cementitious Mixtures

## 3. Terminology

3.1 Terminology defined in Terminology **C1232** shall apply for this specification.

### 3.2 Definitions of Terms Specific to This Standard:

3.2.1 *adhered manufactured stone masonry veneer unit, n*—a non-load bearing masonry unit that is produced by wet-cast blending of cementitious material, lightweight and other aggregates, pigments and admixtures, designed to be applied with a cementitious mortar to a backing surface.

3.2.2 *unit profile, n*—the combination of units that represent the range of shapes and sizes provided in the specified veneer.

3.2.3 *average thickness, n*—the mean of the depth measurement of the unit as measured from the back side to the face side.

3.2.4 *designated area, n*—the area of a completed wall section that is used to verify compliance.

3.2.5 *saturated density, n*—the water saturated weight of the cured specimen divided by the volume of the specimen.

3.2.6 *wet cast, adj*—manufactured from a measurable slump concrete.

## 4. Materials

4.1 Cementitious materials shall conform to the following applicable specifications:

4.1.1 *Portland Cement*—Specification **C150/C150M**.

4.1.2 *Blended Hydraulic Cements*—Specification **C595/C595M**.

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