



Designation: C1877 – 24

Standard Specification for Adhered Concrete Masonry Units¹

This standard is issued under the fixed designation C1877; 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 reappraisal. A superscript epsilon (ε) indicates an editorial change since the last revision or reappraisal.

1. Scope*

1.1 This specification covers solid, dry-cast, concrete masonry units intended for use as an interior and exterior adhered veneer and are made from portland cement, water, and suitable mineral aggregates with or without the inclusion of other materials.

1.2 The text of this specification references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

1.3 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.

NOTE 1—Adhered concrete masonry units covered by this specification are made from lightweight or normal weight aggregates, or both.

NOTE 2—When particular features are desired, such as density classification, surface textures for appearance or bond, finish, color, fire resistance, insulation, acoustical properties, or other special features, such properties should be specified separately by the purchaser. Suppliers should be consulted as to the availability of adhered concrete masonry units having the desired features.

1.4 *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.*

2. Referenced Documents

2.1 ASTM Standards:²

C33/C33M Specification for Concrete Aggregates
C140/C140M Test Methods for Sampling and Testing Con-

¹ This test method is under the jurisdiction of ASTM Committee C15 on Masonry-Manufactured Masonry Units, Mortars and Grouts and is the direct responsibility of Subcommittee C15.03 on Concrete Masonry Units and Related Units.

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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.

crete Masonry Units and Related Units
C150/C150M Specification for Portland Cement
C331/C331M Specification for Lightweight Aggregates for Concrete Masonry Units
C426 Test Method for Linear Drying Shrinkage of Concrete Masonry Units
C595/C595M Specification for Blended Hydraulic Cements
C618 Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
C979/C979M Specification for Pigments for Integrally Colored Concrete
C989/C989M Specification for Slag Cement for Use in Concrete and Mortars
C1157/C1157M Performance Specification for Hydraulic Cement
C1232 Terminology for Masonry
C1240 Specification for Silica Fume Used in Cementitious Mixtures
C1670/C1670M Specification for Adhered Manufactured Stone Masonry Veneer Units

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 concrete masonry unit, n*—a nonloadbearing concrete masonry unit designed to be installed with a cementitious mortar to a backing surface.

4. Materials and Manufacture

4.1 *Cementitious Materials*—Cementitious Materials shall conform to the following applicable specifications:

4.1.1 *Portland Cement*—Specification C150/C150M.

4.1.2 *Modified Portland Cement*—Portland cement conforming to Specification C150/C150M, modified as follows:

(1) *Limestone*—If calcium carbonate is added to the cement, the CaCO₃ content shall not be less than 85 %.

(2) *Limitation on Insoluble Residue*—1.5 %.

(3) *Limitation on Air Content of Mortar*—Volume percent, 22 % max.

(4) *Limitation on Loss on Ignition*—7 %.

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

4.1.4 *Hydraulic Cement*—Specification C1157/C1157M.

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