



# Standard Practice for Construction and Testing of Autoclaved Aerated Concrete (AAC) Masonry<sup>1</sup>

This standard is issued under the fixed designation C1692; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## INTRODUCTION

Masonry units of autoclaved aerated concrete (AAC) can be produced with dimensional tolerances as small as 0.06 in. (1.5 mm). As a consequence, AAC masonry units can be laid with mortar joints approximately 0.38 in. (10 mm) thick, and also with thinner joints. The exterior face of the resulting AAC masonry wall is then protected from the elements using an exterior wythe of masonry, a cladding system, or a breathable coating resistant to penetration by liquid water. The interior face can be plastered, furred, or painted.

## 1. Scope\*

1.1 This practice applies to construction and testing of masonry made of AAC units. It includes or references terminology, material specifications, and methods of test. It references specifications and test methods.

1.2 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.

1.3 *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:<sup>2</sup>

C270 Specification for Mortar for Unit Masonry  
C476 Specification for Grout for Masonry  
C1072 Test Methods for Measurement of Masonry Flexural Bond Strength  
C1232 Terminology of Masonry  
C1660 Specification for Thin-bed Mortar for Autoclaved

Aerated Concrete (AAC) Masonry

C1691 Specification for Unreinforced Autoclaved Aerated Concrete (AAC) Masonry Units

C1693 Specification for Autoclaved Aerated Concrete (AAC)

C1717 Test Methods for Conducting Strength Tests of Masonry Wall Panels

E96/E96M Test Methods for Water Vapor Transmission of Materials

E514 Test Method for Water Penetration and Leakage Through Masonry

E518 Test Methods for Flexural Bond Strength of Masonry

E519 Test Method for Diagonal Tension (Shear) in Masonry Assemblages

### 2.2 Other Standards:

TMS 402-08 / ACI 530-09 / ASCE 5-08 Building Code Requirements for Masonry Structures<sup>3</sup>

TMS 602-08 / ACI 530.1-08 / ASCE 6-08 Specification for Masonry Structures<sup>3</sup>

## 3. Terminology

3.1 *Definitions*—Terms defined in Terminology C1232 shall apply in this practice.

## 4. Significance and Use

4.1 This practice applies to the materials and methods used in the construction of AAC masonry. It directly references the AAC materials standards under the jurisdiction of ASTM Committee C27 and the workmanship requirements of TMS 602-08 / ACI 530.1-08 / ASCE 6-08 and supplements those

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.10 on Autoclaved Aerated Concrete Masonry Units.

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<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.

<sup>3</sup> Available from The Masonry Society, 3970 Broadway, Suite 201-D Boulder, CO 80304–1135, <http://www.masonrysociety.org>.