

## Designation: C216 - 17

# Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale)<sup>1</sup>

This standard is issued under the fixed designation C216; 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 approval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*This standard has been approved for use by agencies of the U.S. Department of Defense.*

### 1. Scope\*

1.1 This specification covers brick intended for use in masonry and supplying structural or facing components, or both, to the structure.

1.2 The requirements of this specification apply at the time of purchase. The use of results from testing of brick extracted from masonry structures for determining conformance or nonconformance to the requirements of this specification is beyond the intent of this specification.

1.3 The brick are prismatic units available in a variety of sizes, textures, colors, and shapes. This specification is not intended to provide specifications for paving brick (see Specification C902).

1.4 Brick are ceramic products manufactured primarily from clay, shale, or similar naturally occurring earthy substances and subjected to a heat treatment at elevated temperatures (firing). Additives or recycled materials are permitted to be included at the option of the manufacturer. The heat treatment must develop a fired bond between the particulate constituents to provide the strength and durability requirements of this specification (see Terminology C1232).

1.5 Brick are shaped during manufacture by molding, pressing, or extrusion, and the shaping method is a way to describe the brick.

1.5.1 This standard and its individual requirements shall not be used to qualify or corroborate the performance of a masonry unit made from other materials, or made with other forming methods, or other means of binding the materials.

1.6 Three types of brick in each of two grades are covered.

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

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.02 on Brick and Structural Clay Tile.

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1.8 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.

### 2. Referenced Documents

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

C67 Test Methods for Sampling and Testing Brick and Structural Clay Tile

C902 Specification for Pedestrian and Light Traffic Paving Brick

C1232 Terminology of Masonry

C1272 Specification for Heavy Vehicular Paving Brick

### 3. Terminology

3.1 *Definitions*—For definitions relating to masonry and facing brick, refer to Terminology C1232.

### 4. Classification

4.1 *Grades*—*Grades* classify brick according to their resistance to damage by freezing when saturated at a moisture content not exceeding the 24-h cold water absorption. Two grades of facing brick are covered and the requirements are given in Section 7.

4.1.1 *Grade SW (Severe Weathering)*—Brick intended for use where high resistance to damage caused by cyclic freezing is desired.

4.1.2 *Grade MW (Moderate Weathering)*—Brick intended for use where moderate resistance to cyclic freezing damage is permissible.

Note 1—Although grade is associated with resistance to deterioration under freeze/thaw exposures, freeze/thaw resistance of a clay brick unit is also affected by the properties of the surrounding materials, the construction details, and the overall environment in which the clay unit is placed; each of which may influence exposure to moisture and freezing conditions. Brick masonry should be detailed to minimize saturation or near-saturation of the units in freezing conditions. Measurement of

<sup>2</sup> 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.

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

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