



Designation: **C56—12 C56 – 13**

Standard Specification for Structural Clay Nonloadbearing Tile¹

This standard is issued under the fixed designation C56; 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.

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

1. Scope*

- 1.1 This specification covers structural clay nonloadbearing tile (partition, fireproofing, and furring).
- 1.2 The property requirements of this specification apply at the time of purchase. The use of results from testing of tile extracted from masonry structures for determining conformance or non-conformance to the property requirements (Section 4.5) of this standard is beyond the scope of this specification.
- 1.3 Tile covered by this specification are manufactured from clay, shale, or similar naturally occurring substances and subjected to a heat treatment at elevated temperatures (firing). The heat treatment must develop sufficient fired bond between the particulate constituents to provide the strength and durability requirements of this specification. (See *firing* and *fired bond* in Terminology C1232.)
- 1.4 Fireproofing tile intended for use in load-bearing masonry shall conform to Specification C34.
- 1.5 Tile intended for use in fireproofing structural members shall be of such sizes and shapes that they can be erected to cover completely the exposed surfaces of the members.
- 1.6 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 this specification.
- 1.7 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.

[ASTM C56-13](https://standards.iteh.ai/catalog/standards/sist/32a05980-b4bc-44d3-9219-05106bfa93e/astm-c56-13)

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¹ 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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*A Summary of Changes section appears at the end of this standard

2. Referenced Documents

2.1 *ASTM Standards*:²

[C34 Specification for Structural Clay Load-Bearing Wall Tile](#)

[C67 Test Methods for Sampling and Testing Brick and Structural Clay Tile](#)

[C1232 Terminology of Masonry](#)

3. Terminology

3.1 *Definitions*—For definitions relating to structural clay nonload-bearing wall tile, refer to Terminology [C1232](#).

4. Classification

4.1 One grade of tile is covered, designated Grade NB.

4.2 If tile having a particular color ([Note 1](#)), texture, or finish are desired, these features shall be specified separately by the purchaser.

NOTE 1—Color of tile varies with the type of clay used and degree of firing; hence, it cannot be taken as indicative of classification until after it has been related to absorption by actual tests.

5. Physical Properties

5.1 Structural clay nonloadbearing tile shall conform to the following requirements for absorption:

Grade	Absorption by 1-h Boiling, ^A % Individual Maximum
NB	28

^AThe range in percentage absorption for tile delivered to any one job shall be not more than 12.

6. Dimensions and Permissible Variations

6.1 No overall dimension shall vary more than 3 % over or under the specified dimension for any form or size of tile. See [Note 2](#).

NOTE 2—Purchasers and designers should ascertain the type and size of tile, modular or non-modular, available in the locality under consideration and should specify accordingly, stating the size and type represented by the available tile.

Modular sizes are designated by the specified nominal dimensions which are equal to the actual manufactured dimensions plus the thickness of one mortar joint, not to exceed ½ in. (12.7 mm). For example, if the modular, specified, or nominal dimensions of a unit are 4 by 8 by 12 in. (102 by 203 by 305 mm) the actual manufactured dimensions may be 3½ by 7½ by 11½ in. (114.7 by 215.7 by 317.7 mm).

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7. Finish and Appearance

7.1 All tile shall be reasonably free of laminations and of cracks, blisters, surface roughness, and other defects that would interfere with the proper setting of the tile or impair the strength or permanence of the construction.

7.2 The finish of the outer face or faces of tile shall be plaster-base finish or exposed wall finish as specified in the invitation for bids.

7.3 Surfaces of tile for plaster-base finish shall be smooth, scored, combed, or roughened. When smooth, the tile shall be free of glaze and the absorption shall be not less than 5 % nor more than 25 %. When scored, each groove shall be not less than ¼ in. (1.6 mm) nor more than ¼ in. (6.4 mm) in depth, and not more than 1 in. (25.4 mm) in width. The area covered by the grooves shall not exceed 50 % of the area of the scored faces. When combed, the tile shall be scratched or scarified prior to firing by mechanical means which shall make scratches or scarifications on the surface of the tile not less than ¼ in. nor more than ½ in. (3.2 mm) in depth, and not more than ¼ in. apart. When roughened, the die skin on the face of the tile shall be entirely broken by mechanical means, such as wire cutting or wire brushing. (The die skin may be observed within the cells of the tile.)

7.4 Surfaces of tile with exposed finish shall be smooth, combed, or roughened. Combed or roughened tile surfaces shall conform to the requirements for these finishes given in [6:37.3](#).

8. Number of Cells and Weights

8.1 Partition and split furring tile shall conform to the requirements prescribed in [Table 1](#) for total number of cells, number of cells in the direction of wall thickness, and weight per unit area.

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.