



Designation: ~~C56—10~~ C56 – 12

## Standard Specification for Structural Clay Nonloadbearing Tile<sup>1</sup>

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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

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

### 1. Scope\*

1.1 This specification covers structural clay nonloadbearing tile (partition, fireproofing, and furring). ~~One grade of tile is covered, designated Grade NB.~~

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 34) 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 ~~If tile having a particular color (Tile intended for use in fireproofing structural Note 1), texture, or finish are desired, these features shall be specified separately by the purchaser; members shall be of such sizes and shapes that they can be erected to cover completely the exposed~~

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

<https://standards.iteh.ai/catalog/standards/sist/3c1972c5-7b40-460e-9cc2-63008a0d1e8e/astm-c56-12>

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

## 2. Referenced Documents

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

[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. Classification

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

3.2 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.

## 4. Absorption-Physical Properties

4.1 Structural clay ~~non-load-bearing~~nonloadbearing tile shall conform to the following requirements for absorption:

Grade	Absorption by 1-h Boiling, <sup>A</sup> %
NB	Individual Maximum 28

<sup>A</sup>The range in percentage absorption for tile delivered to any one job shall be not more than 12.

## 4. Number of Cells and Weights

4.1 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.

4.2 The requirements for minimum weight per unit area of structural clay nonloadbearing tile shall be waived if the overall thickness of the shells, measured between the inner and extreme outer surfaces of scored tile, is not less than 5/8 in. (15.9 mm) and the mean shell thickness of unscored tile is not less than 1/2 in. (12.7 mm). Thickness of webs shall be not less than 1/2 in. (12.7 mm).

## 5. Dimensions and Permissible Variations

5.1 No overall dimension shall vary more than 3 % over or under the specified dimension for any form or size of tile. See **Note 2**.

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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.

**TABLE 1 Number of Cells and Weight of Tile**

Dimensions, in. (mm)		Minimum Number of Cells		Minimum Weight per Unit Area <sup>A</sup> , lb/ft <sup>2</sup> (kg/m <sup>2</sup> )	
		In Unit	In Direction of Wall Thickness	Average	Individual
Partition Tile					
2 by 12 by 12	51 by 305 by 305)	3	1	14 (68)	13 (63)
3 by 12 by 12	(76 by 305 by 305)	3	1	15 (73)	14 (68)
4 by 12 by 12	(102 by 305 by 305)	3	1	16 (78)	15 (73)
6 by 12 by 12	(152 by 305 by 305)	3	1	22 (107)	21 (102)
6 by 12 by 12	(152 by 305 by 305)	4	2	25 (112)	24 (117)
8 by 12 by 12	(203 by 305 by 305)	4	2	30 (146)	28 (137)
10 by 12 by 12	(254 by 305 by 305)	4	2	35 (161)	33 (161)
12 by 12 by 12	(305 by 305 by 305)	4	2	40 (195)	38 (185)
Split Furring Tile					
1½ by 12 by 12	(38 by 305 by 305)	3	...	7½ (37)	7 (34)
2 by 12 by 12	(51 by 305 by 305)	3	...	8 (39)	7½ (37)

<sup>A</sup> The weights given in the table are for scored tile. If any of the faces are unscored, the weights shall be increased 0.5 lb/ft<sup>2</sup> (2.4 kg/m<sup>2</sup>) of unscored area.