

1、ASTM C55-2017 要求:

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.



Designation: C55 – 17

Standard Specification for Concrete Building Brick¹

This standard is issued under the fixed designation C55; 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.

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

4.1.3 *Blended Hydraulic Cements*—Specification C595.

4.1.4 *Hydraulic Cement*—Specification C1157.

4.1.5 *Pozzolans*—Specification C618.

4.1.6 *Blast Furnace Slag Cement*—Specification C989.

4.2 *Aggregates*—Aggregates shall conform to the following specifications, except that grading requirements shall not necessarily apply:

4.2.1 *Normal Weight Aggregates*—Specification C33.

4.2.2 *Lightweight Aggregates*—Specification C331.

4.3 *Other Constituents*—Air-entraining agents, coloring pigments, integral water repellents, finely ground silica, and other constituents shall be previously established as suitable for use in concrete masonry units and shall conform to applicable ASTM standards or shall be shown by test or experience not to be detrimental to the durability of the concrete masonry units or any material customarily used in masonry construction.

5. Physical Requirements

5.1 At the time of delivery to the purchaser, units shall conform to the physical requirements prescribed in Table 1. All units shall be sound and free of cracks or other defects that interfere with the proper placement of the units or significantly

corporation, partnership, or individual entering into a contract or agreement to purchase or install, or both, concrete building brick. The time of delivery to the purchaser is FOB plant when the purchaser or the purchaser's agent transports the concrete building brick, or at the time unloaded at the worksite if the manufacturer or the manufacturer's agent transports the concrete building brick.

6. Dimensions and Permissible Variations

6.1 No overall dimension (width, height, and length) shall differ by more than $\pm 1/8$ in. (3.2 mm) from the specified standard dimensions.

NOTE 5—Standard dimensions of concrete building brick are the manufacturer's designated dimensions. Nominal dimensions of modular size concrete building brick are equal to the standard dimensions plus the thickness of one mortar joint. Nominal dimensions of nonmodular size concrete building brick usually exceed the standard dimensions by $1/8$ to $1/4$ in. (3.2 to 6.4 mm).

6.2 *Coring*—Unless otherwise specified, brick shall be either solid or cored at the option of the seller. For cored concrete building brick, the net cross-sectional area in any plane parallel to the surface containing the cores shall be at least 75 % of the gross cross-sectional area measure in the same plane. No part of any hole shall be less than $3/4$ in. (19.1 mm) from any edge of the unit.

TABLE 1 Strength, Absorption, and Density Classification Requirements^A

Density Classification	Oven-Dry Density of Concrete, lb/ft ³ (kg/m ³)	Maximum Water Absorption, lb/ft ³ (kg/m ³)		Minimum Net Area Compressive Strength, lb/in ² (MPa)	
		Average of 3 Units	Individual Units	Average of 3 Units	Individual Units
Lightweight	Less than 105 (1680)	18 (288)	20 (320)	2500 (17.2)	2000 (13.8)
Medium Weight	105 to less than 125 (1680–2000)	15 (240)	17 (272)	2500 (17.2)	2000 (13.8)
Normal Weight	125 (2000) or more	13 (208)	15 (240)	2500 (17.2)	2000 (13.8)

^ACompressive strength, absorption, and density determined in accordance with 8.2.