



Designation: C 744 – 99

Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units¹

This standard is issued under the fixed designation C 744; 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 (ϵ) 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 prefaced concrete masonry units with the exposed-to-view-in-place surfaces covered at the point of manufacture with resin, resin and inert filler, or cement and inert filler to produce a smooth resinous tile facing.

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

2. Referenced Documents

2.1 ASTM Standards:

- C 55 Specification for Concrete Building Brick²
- C 73 Specification for Calcium Silicate Face Brick (Sand-Lime Brick)²
- C 90 Specification for Loadbearing Concrete Masonry Units²
- C 129 Specification for Nonloadbearing Concrete Masonry Units²
- C 140 Test Methods for Sampling and Testing Concrete Masonry Units and Related Units²
- C 501 Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser³
- C 1209 Terminology of Concrete Masonry Units and Related Units²
- C 1232 Terminology of Masonry²
- D 822 Practice for Conducting Tests on Paint and Related Coatings and Materials Using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus⁴
- D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates⁴
- D 2486 Test Method for Scrub Resistance of Interior Latex Flat Wall Paints⁵

E 84 Test Method for Surface Burning Characteristics of Building Materials⁶

3. Terminology

3.1 Terminology defined in Terminology C 1209 and C 1232 shall apply for this specification.

4. Materials

4.1 Concrete masonry units on which prefaced surfaces are molded shall meet the requirements of:

- 4.1.1 Specification C 55 for Concrete Building Brick.
- 4.1.2 Specification C 73 for Calcium Silicate Face Brick (Sand-Lime Brick).
- 4.1.3 Specification C 90 for Loadbearing Concrete Masonry Units.
- 4.1.4 Specification C 129 for Nonloadbearing Units.

NOTE 1—The purchaser of prefaced units should indicate the applicable specification and the type and grade of unit required. Where prefaced units are required for exterior use, the manufacturer should be consulted for material suitable for this purpose.

5. Facing Requirements

5.1 *Resistance to Cracking, Cracking, or Spalling*—There shall be no crazing, cracking, or spalling of the facing material when the unit is tested in accordance with 7.2.

5.2 *Resistance to Chemicals*—The condition of the surface shall show no change after testing with each of the chemicals listed in 7.3.

5.3 *Adhesion*—When viewed without magnification, there shall be no failure of the adhesion of the facing material to the concrete masonry unit at the time of failure of the entire prefaced unit when tested in compression in accordance with 7.4.

5.4 *Abrasion*—The wear index shall exceed 130 when tested in accordance with 7.5.

5.5 *Surface Burning Characteristics*—When tested in accordance with 7.6, the surfaces of the prefaced units shall have a flame spread classification not greater than 25 without evidence of continued progressive combustion and shall have a smoke density rating not greater than 50.

¹ This specification is under the jurisdiction of ASTM Committee C-15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.03 on Concrete Masonry Units and Related Units.

Current edition approved Jan. 10, 1999. Published June 1999. Originally published as C 744 – 73. Last previous edition C 744 – 98.

² Annual Book of ASTM Standards, Vol 04.05.

³ Annual Book of ASTM Standards, Vol 15.02.

⁴ Annual Book of ASTM Standards, Vol 06.01.

⁵ Annual Book of ASTM Standards, Vol 06.02.

⁶ Annual Book of ASTM Standards, Vol 04.07.

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