



Designation: C744 – 09

Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units¹

This standard is issued under the fixed designation C744; 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 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. This specification does not address, and therefore is not applicable to, ground-face concrete masonry units that are manufactured by grinding a thin layer off the surface of a concrete masonry unit to expose aggregates within and polishing to produce a smooth, architectural finish.

1.2 The text of this specification 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.

1.3 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*:²

- C55 Specification for Concrete Building Brick
- C73 Specification for Calcium Silicate Brick (Sand-Lime Brick)
- C90 Specification for Loadbearing Concrete Masonry Units
- C129 Specification for Nonloadbearing Concrete Masonry Units
- C140 Test Methods for Sampling and Testing Concrete Masonry Units and Related Units
- C501 Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser
- C1232 Terminology of Masonry

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

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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.

- D822 Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings
- D2244 Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
- D2486 Test Methods for Scrub Resistance of Wall Paints
- E84 Test Method for Surface Burning Characteristics of Building Materials

3. Terminology

3.1 Terminology defined in Terminology C1232 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 C55 for Concrete Building Brick.
- 4.1.2 Specification C73 for Calcium Silicate Face Brick (Sand-Lime Brick).
- 4.1.3 Specification C90 for Loadbearing Concrete Masonry Units.
- 4.1.4 Specification C129 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.

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