



Designation: C 1272 – 04

Standard Specification for Heavy Vehicular Paving Brick¹

This standard is issued under the fixed designation C 1272; 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.

1. Scope*

1.1 This specification covers brick intended for use as a paving material in areas with a high volume of heavy vehicular traffic. The units are designed for use in such places as streets, commercial driveways, and aircraft taxiways. These units are not intended for applications covered by Specifications C 410 or C 902C 410C 902.

1.2 Units are manufactured from clay, shale, or similar naturally occurring earthy 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, fired bond, and incipient fusion in Terminology C 43C 43).

1.3 Brick may be shaped during manufacture by extruding, molding, or pressing. Brick may have spacing lugs, chamfered edges, or both.

1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 *ASTM Standards*:²

- C 43 Terminology of Structural Clay Products
- C 67 Test Methods for Sampling and Testing Brick and Structural Clay Tile
- C 88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
- C 410 Specification for Industrial Floor Brick
- C 418 Test Method for Abrasion Resistance of Concrete by Sandblasting
- C 902 Specification for Pedestrian and Light Traffic Paving Brick

E 303 Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester

3. Terminology

3.1 *Definitions*—Terms used in this specification are defined in Terminology C 43C 43.

3.2 *Definitions of Terms Specific to This Standard*:

3.2.1 *heavy vehicular traffic*—high volume of heavy vehicles representing trucks or combination vehicles having 3 or more loaded axles.

3.2.1.1 *Discussion*—High volume is considered to be traffic over 251 daily equivalent single axle loads (ESAL).

4. Classification

4.1 *Types*—Heavy vehicular paving brick are classified by type according to their intended installation:

4.1.1 *Type R*—Brick intended to be set in a mortar setting bed supported by an adequate concrete base; or an asphalt setting bed supported by an adequate asphalt or concrete base.

4.1.2 *Type F*—Brick intended to be set in a sand setting bed, with sand joints, and supported by an adequate base.

4.2 *Applications*—Heavy vehicular paving brick are classified by application according to their dimensional tolerances, distortion, and extent of chips.

4.2.1 *Application PS*—Pavers intended for general use.

4.2.2 *Application PX*—Pavers intended for use where dimensional tolerances, warpage, and chippage are limited.

4.2.3 *Application PA*—Pavers intended to produce characteristic architectural effects resulting from nonuniformity in size, color, and texture.

5. Physical Properties

5.1 *Freeze Thaw Resistance*—Use one of the following methods:

5.1.1 *Physical Property Requirements*—The brick shall conform to the physical requirements for the type specified as prescribed in Table 1.

5.1.2 *Freezing and Thawing Alternative*—The cold water absorption requirements specified in 5.1.1 shall not be required provided a sample of five brick, meeting all other requirements, passes the 50 cycle freezing-and-thawing test in Test Methods C 67C 67 with not greater than 0.5 % loss in dry weight of any individual unit.

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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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.

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