



Standard Specification for Non-Asbestos Fiber-Cement Nonpressure Sewer Pipe¹

This standard is issued under the fixed designation C 1449; 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 requirements relating to non-asbestos fiber-cement non-pressure sewer pipe, joints, and fittings suitable for use with gravity flow, intended for sewerage and drainage applications from point of use to point of treatment or disposal. It defines certain conditions of manufacture, classification, characteristics, and acceptance tests applicable to these products.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are provided for information only.

NOTE 1—Rubber rings suitable for use with this pipe are covered in Specification D 1869.

NOTE 2—This specification is issued for product standardization and purchasing purposes only, and does not include requirements for installation or the relationships between operating conditions and the strength characteristics of the various classifications of pipe. The purchaser is cautioned that he must correlate installation and operating conditions with the specified characteristics of the pipe.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

C 150 Specification for Portland Cement²

C 500 Test Methods for Asbestos-cement Pipe³

C 595 Specification for Blended Hydraulic Cements²

C 1154 Terminology for Non-Asbestos Fiber-Reinforced Cement Products⁴

D 1869 Specification for Rubber Rings for Asbestos-cement Pipe³

2.2 Federal Standard:

No. 123 Marking for Domestic Shipment (Civilian Agencies)⁵

¹ This specification is under the jurisdiction of ASTM Committee C-17 on Fiber-Cement Products and is the direct responsibility of Subcommittee C17.02 on Non-Asbestos Fiber-Cement Products.

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² Annual Book of ASTM Standards, Vol 04.01.

³ Annual Book of ASTM Standards, Vol 09.02.

⁴ Annual Book of ASTM Standards, Vol 04.05.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

2.3 Military Standard:

No. 129 Marking for Shipment and Storage⁵

2.4 Other Standards:

Uniform Freight Classification Rules⁶

National Motor Freight Classification Rules⁷

3. Terminology

3.1 *Definitions*—Refer to Terminology C 1154.

3.1.1 *coupling*—section for joining fiber-cement non-pressure sewer pipe, as defined in 5.3, that when properly installed with the proper accessories, develops an assembled joint, equivalent in serviceability and strength to the pipe sections when tested in accordance with 7.3.

3.1.2 *fitting*—components such as wyes, tees, adaptors, for use in laying fiber-cement pipe, such that, when properly installed, yields develops an assembly fitting equivalent in serviceability and strength to the pipe sections.

3.1.3 *pipe*—fiber-cement non-pressure sewer pipe as defined in Sections 1, 3, and 5.

3.2 Lot:

3.2.1 A lot is used herein for designated pipe sizes 150 mm (6 in.) and smaller is defined as those lengths of pipe of that size, class, and type manufactured during the same shift.

3.2.2 A lot, used herein for designated pipe sizes 200 mm (8 in.) through 525 mm (21 in.), is defined as each 300 lengths of pipe or less, of identical size, class, and type manufactured on each machine during a 24-h period.

3.2.3 A lot, used herein for designated pipe sizes larger than 525 mm (21 in.), is defined as each 300 lengths of pipe or less, of identical size, class, and type manufactured on each machine during a period of consecutive working days not exceeding seven days.

4. Classification

4.1 Fiber-cement pipe furnished under this specification shall be designated as Classes 1500, 2400, 3300, 4000, 5000, 6000, and 7000 based on the respective crushing strengths, and shall be furnished in the designated sizes as shown in Table 1.

4.2 The type of pipe shall be designated as Type I or Type II in accordance with the chemical requirements of Section 6.

NOTE 3—To assist the purchaser in choosing the type of pipe most

⁶ Available from the Uniform Classification Commission, Room 1106, 222 S. Riverside Plaza, Chicago, IL 60606.

⁷ Available from National Motor Freight Inc., 1616 P St., NW, Washington, DC 20036.