



Standard Specification for Asbestos-Cement Underdrain Pipe¹

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1. Scope

1.1 This specification covers asbestos-cement perforated and plain pipe intended for use in the conveyance of drainage water for the subsurface drainage of highways, airports, farms, foundations, and other similar drainage work.

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.

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

1.4 *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 458 Test Method for Organic Fiber Content of Asbestos-Cement Products³
- C 500 Test Methods for Asbestos-Cement Pipe³
- C 595 Specification for Blended Hydraulic Cements²
- C 608 Method of Test for Brittle Ring Tensile Strength of Chemically Setting Silicate and Silica Chemical-Resistant Mortars⁴
- C 618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete⁵
- D 2946 Terminology for Asbestos and Asbestos-Cement Products³

2.2 Federal Standard:

No. 123 Marking for Shipment Civil Agencies⁶

2.3 Military Standard:

MIL-STD-129 Marking for Shipment and Storage⁶

2.4 Other Standards:

Uniform Freight Classification Rules⁷

National Motor Freight Classification Rules⁸

3. Terminology

3.1 Definitions:

3.1.1 *coupling, n*—component made from a larger diameter pipe of the same type or class, or of Type II and a higher class, or produced otherwise to yield at least equal performance, for joining asbestos-cement pipe that when properly installed, forms a silt-tight joint, allows alignment corrections and slight changes in direction, and provides an assembled joint equivalent in serviceability and strength to the pipe sections.

3.1.2 *lot*—each 400 m (1300 ft) of pipe or less of a given type and size manufactured on each machine during a 24-h period.

3.2 Additional terminology is given in Terminology D 2946.

4. Sizes and Types

4.1 Asbestos-cement underdrain pipe furnished under this specification shall be known as “asbestos-cement underdrain pipe.” It shall be furnished in nominal inside diameters of 10, 15, 20, 25, and 30 cm (4, 6, 8, 10, and 12 in.). The types of pipe shall be known as Type I and Type II corresponding to the chemical requirements given in Section 9.

NOTE 1—To assist the purchaser in choosing the type of pipe most suitable for his use, guidelines for the definition of aggressiveness of water and of soil environments for selection of the proper type of asbestos-cement pipe are covered in the appropriate sections of Test Methods C 500.

5. Materials and Manufacture

5.1 Asbestos-cement underdrain pipe shall be composed of an intimate mixture of portland cement or portland blast-furnace slag cement described in Specification C 150 or portland blast-furnace slag or pozzolan cements described in Specification C 595 and asbestos fiber with or without fine silica or additives containing such silica meeting Specification

¹ This specification is under the jurisdiction of ASTM Committee C17 on Fiber-Cement Products and is the direct responsibility of C17.03 on Asbestos-Cement Sheet Products and Accessories.

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² Annual Book of ASTM Standards, Vol 04.01.

³ Annual Book of ASTM Standards, Vol 04.05.

⁴ Discontinued. See 1983 Annual Book of ASTM Standards, Vol 04.05.

⁵ Annual Book of ASTM Standards, Vol 04.02.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁷ Available from the Uniform Classification Commission, Room 1106, 222 S. Riverside Plaza, Chicago, IL 60606.

⁸ Available from National Motor Freight Inc., 1616 P. St., N.W., Washington, DC 20036.