



Designation: C 361 – 03

Standard Specification for Reinforced Concrete Low-Head Pressure Pipe¹

This standard is issued under the fixed designation C 361; 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 reinforced concrete pipe intended to be used for the construction of pressure pipelines with low internal hydrostatic heads generally not exceeding 125 ft.

1.2 A complete metric companion to Specification C 361 has been developed—C 361M; therefore, no metric equivalents are presented in this specification.

NOTE 1—Field tests on completed portions of the pipeline are not covered by this specification for the manufacture of the pipe but should be included in specifications for pipe laying.

2. Referenced Documents

2.1 ASTM Standards:

- A 27/A 27M Specification for Steel Castings, Carbon, for General Application²
- A 36/A 36M Specification for Carbon Structural Steel³
- A 82 Specification for Steel Wire, Plain, for Concrete Reinforcement³
- A 185 Specification for Steel Welded Wire Reinforcement, Plain, for Concrete³
- A 283/A 283M Specification for Low and Intermediate Tensile Strength Carbon Steel Plates³
- A 496 Specification for Steel Wire, Deformed, for Concrete Reinforcement³
- A 497/A 497M Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete³
- A 570/A 570M Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled⁴
- A 575 Specification for Steel Bars, Carbon, Merchant Quality, M-Grades⁵
- A 576 Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality⁵

- A 611 Specification for Structural Steel, Sheet, Carbon, Cold-Rolled⁶
- A 615/A 615M Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement³
- A 675/A 675M Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality, Mechanical Properties⁵
- C 31 Practice for Making and Curing Concrete Test Specimens in the Field⁷
- C 33 Specification for Concrete Aggregates⁷
- C 39 Test Method for Compressive Strength of Cylindrical Concrete Specimens⁷
- C 150 Specification for Portland Cement⁸
- C 260 Specification for Air-Entraining Admixtures for Concrete⁷
- C 309 Specification for Liquid Membrane-Forming Compounds for Curing Concrete⁷
- C 497 Test Methods for Concrete Pipe, Manhole Sections, or Tile⁹
- C 595 Specification for Blended Hydraulic Cements⁸
- C 618 Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete⁷
- C 822 Terminology Relating to Concrete Pipe and Related Products⁹
- D 395 Test Methods for Rubber Property—Compression Set¹⁰
- D 412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension¹⁰
- D 471 Test Method for Rubber Property—Effect of Liquids¹⁰
- D 573 Test Method for Rubber—Deterioration in an Air Oven¹⁰
- D 698 Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³))¹¹
- D 1149 Test Method for Rubber Deterioration—Surface

¹ This specification is under the jurisdiction of ASTM Committee C13 on Concrete Pipe and is the direct responsibility of Subcommittee C13.04 on Low Head Pressure Pipe.

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² *Annual Book of ASTM Standards*, Vol 01.02.

³ *Annual Book of ASTM Standards*, Vol 01.04.

⁴ Discontinued. See 1999 *Annual Book of ASTM Standards*, Vol 01.04. Replaced by A 1011/A 1011M.

⁵ *Annual Book of ASTM Standards*, Vol 01.05.

⁶ Discontinued. See 1999 *Annual Book of ASTM Standards*, Vol 01.03. Replaced by A 1008/A 1008M.

⁷ *Annual Book of ASTM Standards*, Vol 04.02.

⁸ *Annual Book of ASTM Standards*, Vol 04.01.

⁹ *Annual Book of ASTM Standards*, Vol 04.05.

¹⁰ *Annual Book of ASTM Standards*, Vol 09.01.

¹¹ *Annual Book of ASTM Standards*, Vol 04.08.