

# Standard Specification for Vitrified Clay Pipe and Joints for Use in Microtunneling, Sliplining, Pipe Bursting, and Tunnels<sup>1</sup>

This standard is issued under the fixed designation C1208/C1208M; 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  $(\varepsilon)$  indicates an editorial change since the last revision or reapproval.

## 1. Scope

- 1.1 This specification establishes the criteria for the manufacture, quality assurance testing, inspection, installation, field acceptance testing, and product marking of vitrified clay jacking pipe to be used in microtunneling, the pilot tube method, sliplining, pipe bursting, and in casings and tunnels for the conveyance of sewage, industrial wastes, and storm water.
- 1.1.1 Sections 3 through 7 and 9 of this specification contain manufacturing, quality assurance testing, inspection, and product marking criteria which are applicable to vitrified clay pipe prior to installation.
- 1.1.2 Section 8 of this specification contains criteria for the installation and field acceptance testing of vitrified clay pipe.
- 1.2 This specification also covers materials and test requirements for jointing of the pipe.
- 1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.
- 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:<sup>2</sup>

C67 Test Methods for Sampling and Testing Brick and Structural Clay Tile

C301 Test Methods for Vitrified Clay Pipe

C828 Test Method for Low-Pressure Air Test of Vitrified Clay Pipe Lines

C896 Terminology Relating to Clay Products

C1091 Test Method for Hydrostatic Infiltration Testing of Vitrified Clay Pipe Lines

D395 Test Methods for Rubber Property—Compression Set
 D412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension

D471 Test Method for Rubber Property—Effect of Liquids
D518 Test Method for Rubber Deterioration—Surface
Cracking (Withdrawn 2007)<sup>3</sup>

D543 Practices for Evaluating the Resistance of Plastics to Chemical Reagents

D573 Test Method for Rubber—Deterioration in an Air Oven

D1149 Test Methods for Rubber Deterioration—Cracking in an Ozone Controlled Environment

D2240 Test Method for Rubber Property—Durometer Hardness

# 3. Terminology

3.1 *Definitions*—Terminology C896 can be used for clarification of terminology in this specification.

### PIPE

### 4. Materials and Manufacture

- 4.1 Vitrified clay pipe shall be manufactured from fire clay, shale, surface clay, or a combination of these materials that, when formed into pipe and fired to suitable temperatures, yields a product that conforms to this specification.
  - 4.2 Test Requirements for Pipe:
  - 4.2.1 Test Samples:
- 4.2.1.1 When requested, test samples representative of the pipe to be used shall be selected by the purchaser or his representative from the supplier's stock.
- 4.2.1.2 The number of samples to be tested shall not exceed 0.5 % of the number of pipe of each size furnished, except that no less than three samples shall be tested.

<sup>&</sup>lt;sup>1</sup> This specification is under the jurisdiction of ASTM Committee C04 on Vitrified Clay Pipe and is the direct responsibility of Subcommittee C04.20 on Methods of Test and Specifications.

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<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> The last approved version of this historical standard is referenced on www.astm.org.