



Designation: C 497 – 03a

## Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile<sup>1</sup>

This standard is issued under the fixed designation C 497; 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 These test methods cover testing of concrete pipe, manhole sections, and tile. The test methods described are used in production testing and acceptance testing to evaluate the properties provided for in the specifications.

1.2 The test methods appear in the following order:

|                                 | Section |
|---------------------------------|---------|
| External Load Crushing Strength | 4       |
| Flat Slab Top                   | 5       |
| Core Strength                   | 6       |
| Absorption                      | 7       |
| Hydrostatic                     | 8       |
| Permeability                    | 9       |
| Manhole Step                    | 10      |
| Cylinder Strength               | 11      |
| Gasket Lubricant                | 12      |
| Joint Shear                     | 13      |
| Alkalinity                      | 14      |
| Gasket Measurements             | 15      |

1.3 The test specimens shall not have been exposed to a temperature below 40°F for the 24 h immediately preceding the test.

1.4 If any test specimen fails because of mechanical reasons such as failure of testing equipment or improper specimen preparation, it shall be discarded and another specimen taken.

1.5 Specimens shall be selected in accordance with the specifications for the type of pipe or tile being tested.

1.6 A complete metric companion to Test Methods C 497 has been developed—C 497M; therefore, no metric equivalents are presented in these methods.

1.7 *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.*

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee C13 on Concrete Pipe and are the direct responsibility of Subcommittee C13.09 on Methods of Test. Current edition approved ~~Feb.~~ Sept. 10, 2003. Published ~~July~~ December 2003. Originally approved in 1962. Last previous edition approved in 2002<sup>3</sup> as C 497 – 02<sup>3</sup>.