



Standard Specification for Glass-Fiber-Reinforced Polyester Manholes and Wetwells¹

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^{ε1} NOTE—Editorial corrections added in April 2013.

1. Scope*

1.1 This specification covers glass fiber-reinforced polyester manholes and wetwells for use primarily in sanitary and storm sewer applications.

1.2 The values given in inch-pound units are to be regarded as the standard. The values in parentheses are provided for information purposes only.

1.3 The following precautionary caveat pertains only to the test methods portion, Section 8, of this specification: *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.*

NOTE 1—There is no known ISO equivalent to this standard.

2. Referenced Documents

2.1 ASTM Standards:²

- C581 Practice for Determining Chemical Resistance of Thermosetting Resins Used in Glass-Fiber-Reinforced Structures Intended for Liquid Service
- D695 Test Method for Compressive Properties of Rigid Plastics
- D785 Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials
- D790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- D883 Terminology Relating to Plastics
- D1600 Terminology for Abbreviated Terms Relating to Plastics

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.23 on Reinforced Plastic Piping Systems and Chemical Equipment.

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² 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.

- D2412 Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading
- D2583 Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor
- D2584 Test Method for Ignition Loss of Cured Reinforced Resins
- D3892 Practice for Packaging/Packing of Plastics

3. Terminology

3.1 *General*—Definitions are in accordance with Terminology D883 and the abbreviations are in accordance with Terminology D1600 unless otherwise indicated.

3.2 *bench and invert, n*—internal flow channel with a sloped bench extending from the edge of the flow channel to the manhole wall designed to facilitate the flow of liquid through the manhole between the pipe connectors.

3.3 *bottom, n*—a flat, domed, dished, or other shaped bottom designed to make the manhole or wetwell watertight at its base.

3.4 *expanded base manhole, n*—a manhole with the addition of eccentric or concentric reducers attached to cylinder sections of different diameter than the manhole to allow changes in cylinder diameter.

3.5 *manway reducer, n*—the top portion of the manhole through which entrance to the manhole is made and where the diameter increases from the entrance way to the larger manhole cylinder.

3.6 *manhole, n*—a constant diameter cylinder attached to a manway reducer designed to handle a manhole cover and ring.

3.7 *manhole cover and ring, n*—those accessories used with the manhole to close the manway entrance (includes adjustment rings).

3.8 *manhole cylinder, n*—the portion below the manway reducer that extends in a constant diameter to the manhole base.

3.9 *pipe connectors, n*—connectors that provide access for the sewer pipe into the manhole.

3.10 *resin rich, adj*—describes that portion of the glass fiber-reinforced polyester material where the resin-to-glass ratio is significantly greater than in other portions of the manhole.

*A Summary of Changes section appears at the end of this standard