Designation: F2487 – 13

An American National Standard

Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Corrugated High Density Polyethylene and Polypropylene Pipelines[1,2]

This standard is issued under the fixed designation F2487; 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 U.S. Department of Defense.

1. Scope*

1.1 This practice covers procedures for testing installed non-perforated, gasketed corrugated high-density polyethylene (HDPE) and corrugated polypropylene (PP) pipelines using either water infiltration or exfiltration acceptance limits to demonstrate the integrity via the level of leakage of the installed materials, construction procedures and installation qualityvia the level of leakage. Pipe to be tested under this practice shall include corrugated HDPE and PP drainage pipe meeting the requirements of AASHTO M 252, AASHTO M 294 and Specifications F2306/F2306M, F2736, F2762, F2763, F2764, and F2947.

NOTE 1—The performance criteria specified in this standard may be used for other plastic pipe products. The engineer, however, must assess if the testing procedures are adequate for the particular material and installation being considered.

NOTE 2—The user of this practice is advised that test criteria presented in this practice are similar to those in general use. Pipe, 600-mm (24-in.) diameter or larger, may be accepted by visual inspection when testing for infiltration.

1.2 The values stated in SI units are to be regarded as the standard. The values in parentheses are mathematical conversions to inch-pounds, which are provided for informational purposes only and are not considered standard.

1.3 This test method shall be performed on lines after all connections and service laterals have been plugged and braced adequately to withstand the test pressures. The time between completion of the backfill operations and testing shall be specified by the approving authority.

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. The testing required under this standard necessitates operating in confined spaces. The user must insure that all OSHA and local safety codes are duly observed.*

2. Referenced Documents

2.1 *ASTM Standards:*[3]

D3212 Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals

F412 Terminology Relating to Plastic Piping Systems

F2306/F2306M Specification for 12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications

F2736 Specification for 6 to 30 in. (152 To 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe And Double Wall Pipe

F2762 Specification for 12 to 30 in. (300 to 750 mm) Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Sanitary Sewer Applications

F2763 Specification for 12 to 60 in. [300 to 1500 mm] Dual and Triple Profile-Wall Polyethylene (PE) Pipe and Fittings for Sanitary Sewer Applications

F2764 Specification for 6 to 60 in. [150 to 1500 mm] Polypropylene (PP) Corrugated Double and Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications

F2947 Specification for 150 to 1500 mm [6 to 60 in.] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Sanitary Sewer Applications

2.2 *AASHTO Standards*[2]

M 252 Standard Specification for Corrugated Polyethylene Drainage Pipe 75 to 250-mm (3 to 10-inch) Diameter

[1] This practice is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.20 on Joining.

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[2] Available from American Association of State Highway and Transportation Officials (AASHTO), 444 N. Capitol St., NW, Suite 249, Washington, DC 20001, http://www.transportation.org.

[3] 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.

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