



Designation: F3058 – 16 (Reapproved 2026)

Standard Practice for Preliminary Field Testing of Thermoplastic Pipe Joints for Gravity Flow (Non-Pressure) Sewer Lines¹

This standard is issued under the fixed designation F3058; 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.

1. Scope

1.1 This practice covers procedures for testing single joints of thermoplastic pipe for gravity flow (non-pressure) sewer lines, when using either air or water under low pressure to demonstrate the integrity of the joint. This practice is used for testing 27 in. (675 mm) and larger inside diameter PVC (Polyvinyl Chloride), HDPE (High Density Polyethylene) and PP (Polypropylene) sewer lines utilizing flexible gasketed joints with elastomeric seals, Specification F477.

1.2 This practice is used for assessing the watertight integrity of a joint at the time of the test. It is not a pipeline acceptance test as it does not evaluate the integrity of the pipe barrel or any long-term pipeline deformation effects from backfill settlement

NOTE 1—The user of this practice is advised that methods described herein is typically used as a preliminary test to enable the installer to demonstrate the integrity of a sewer pipe joint prior to placement of final backfill. Such testing after initial backfill can detect if a gasket has rolled or dirt was pushed into the joint during the mating of the pipe. Repair of these types of installation problems can be done very quickly and effectively prior to final backfill, but once final backfill is placed, repairs are very difficult and costly.

NOTE 2—This practice may be used at any time to check the integrity of a joint prior to acceptance testing or to locate a leaking joint when a pipeline fails a hydrostatic infiltration/exfiltration test, vacuum test or air pressure test during any time of the installation and acceptance process.

NOTE 3—The user of this practice is advised that no correlation has been found between air loss and water leakage.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

¹ This practice is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.40 on Test Methods.

Current edition approved Feb. 1, 2026. Published February 2026. Originally approved in 2016. Last previous edition approved in 2021 as F3058–16(2021). DOI: 10.1520/F3058–26

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F412 Terminology Relating to Plastic Piping Systems

F477 Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe

F2487 Practice for Infiltration and Exfiltration Acceptance Testing of Installed Corrugated High Density Polyethylene and Polypropylene Pipelines

3. Terminology

3.1 *Definitions*—For definitions of terms relating to plastic pipe, see Terminology F412.

4. Summary of Practice

4.1 The joint in the sewer line to be tested is covered on the inside of the pipe by a ring with two end element sealing tubes. Air or water is introduced at low pressure through a connection on the ring into the annular space between the ring and joint. The amount of air, or water, loss is used to determine the acceptability of the joint.

5. Significance and Use

5.1 The values recorded are applicable only to the sewer joint being tested and at the time of testing.

6. Safety Precautions

6.1 The use of compressed air is dangerous. Always observe proper sewer line preparation and procedures.

6.2 It is imperative that all pressures be relieved completely before the test apparatus is loosened for removal.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.