



Designation: A 1045 – 05

Standard Specification for Flexible Poly (Vinyl Chloride) (PVC) Gaskets used in Connection of Water Closets to Sanitary Drainage System¹

This standard is issued under the fixed designation A 1045; 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 specification covers material and performance requirements for plasticized PVC compression gaskets used in the connection of residential and commercial water closets to 3 and 4-in. sanitary drainage pipe. These type gaskets are inserted into and compress against the inside diameter of the sewer pipe while attaching to the water closet with a flexible adhesive. The result is a gas- and water-tight seal.

1.2 The values stated in inch-pound units are to be regarded as the standard. The SI units given in brackets are for information only.

1.3 *This standard does not purport to address all of the safety concerns, is any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

C 717 Terminology of Building Seals and Sealants

D 5926 Specification for Poly (Vinyl Chloride) (PVC) Gaskets for Drain, Waste, and Vent (DWV), Sewer, Sanitary, and Storm Plumbing Systems

3. Terminology

3.1 *Definitions*— For definitions of terms in this specification refer to Terminology **C 717**.

4. Materials and Manufacture

4.1 These type gaskets are manufactured principally from virgin injection grade plasticized PVC compounds. Recycled materials may be used in this product in accordance with Section 5.

4.2 Adhesives used in the attachment of water closet gaskets shall be compatible with the component gasket material and the sanitary drain system. Butyl rubber-based adhesives are known to have such characteristics.

5. Gasket Requirements

5.1 Physical and mechanical properties of plasticized PVC gaskets for the connection of water closets to the sanitary drainage system shall comply with Specification **D 5926**.

5.2 Gaskets shall be tested in accordance with Section 9 on pipe samples complying with applicable industry standards of maximum and minimum dimensions. It shall be permissible to machine pipe samples to attain maximum or minimum dimensions, or both.

5.3 The gasket assembly when tested in accordance with Section 9 shall not leak.

5.4 The gasket shall accommodate water closets and closet flanges conforming to applicable industry standards.

6. Dimensions, Mass, and Permissible Variations

6.1 Gaskets shall conform to the dimensions and dimensional tolerances as agreed upon between the supplier and purchaser. All dimensions shall be compatible with the dimensions and tolerances of the specific pipe materials and sizes and water closet to which it is designed to join.

7. Workmanship, Finish and Appearance

7.1 The surface of preformed gaskets shall be smooth and free from pitting, cracks, blisters, air marks, or any other imperfections that may affect product performance in service.

7.2 Neither the flash thickness nor the flash extension shall exceed 1/32 in. (1 mm).

7.3 Mold release, oil, or grease used in the manufacturing process will have a detrimental effect on the ability of the adhesive to adhere to the flanged surface of the water closet gasket. Care should be taken not to contaminate the flanged surface of the gasket.

¹ This specification is under the jurisdiction of ASTM Committee A04 on Iron Castings and is the direct responsibility of Subcommittee A04.75 on Gaskets and Coupling for Plumbing and Sewer Piping.

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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.

8. Sampling, Tests, and Retests

8.1 Test specimens representative of the gaskets to be used shall be randomly selected from the manufactured lot for testing. The manufactured lot shall be a minimum of eight hours old. Tests shall be performed at room temperature.

8.2 Where there is a failure in the original test, the entire test shall be rerun with twice the number of samples and any failure shall be cause for rejection.

9. Test Method for Assembled Gaskets

9.1 *Test Apparatus*—The apparatus used to conduct this test shall be designed as illustrated in Fig. 1. The test apparatus shall be constructed of clear acrylic with a polished finish.

9.2 *Significance and Use*—This test method is useful in determining the ability of the gasket assembly to provide a permanent seal against water, sewer, sewer gas and the like in water closet to sewer pipe applications.

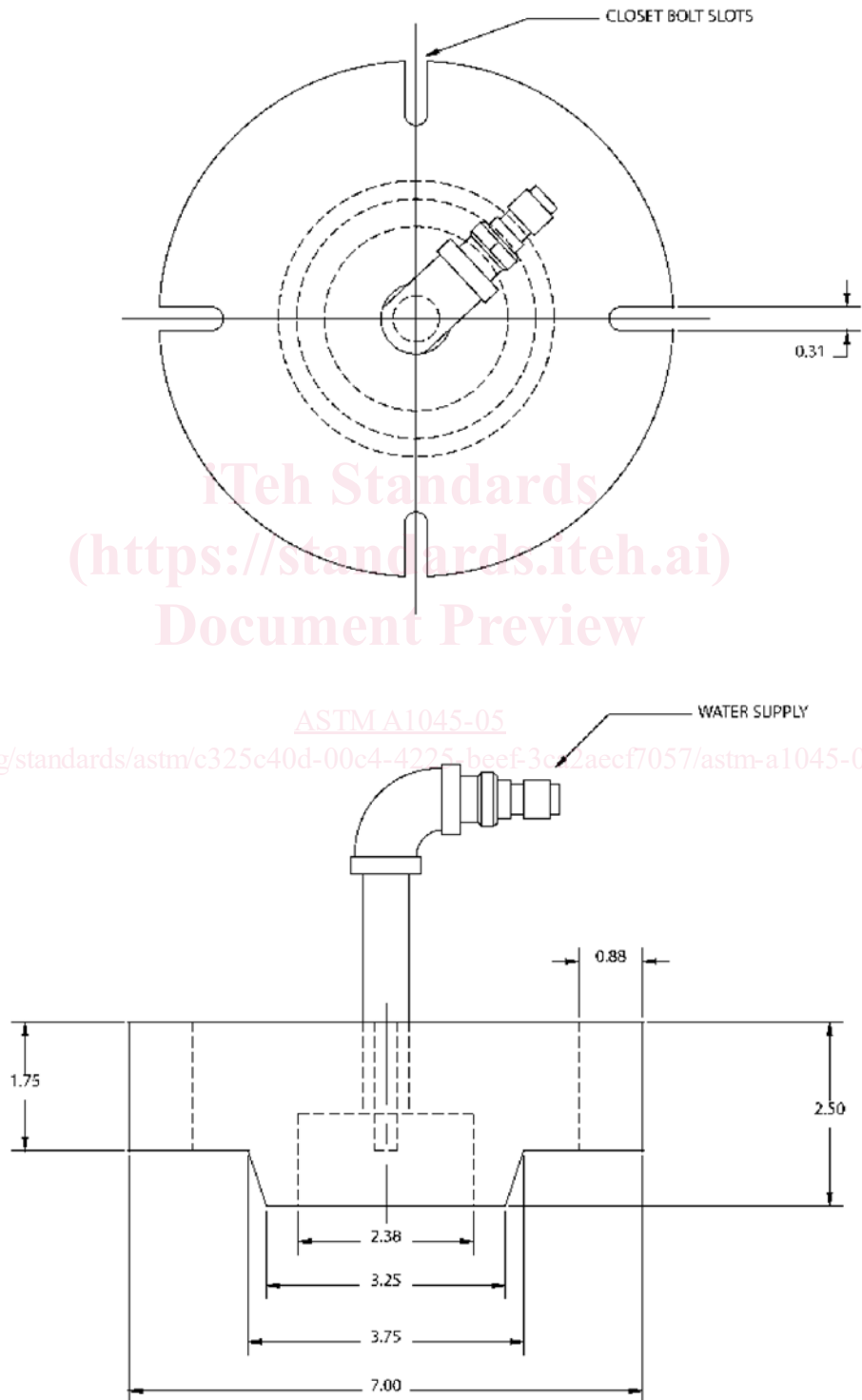


FIG. 1 Test Apparatus