



Standard Test Method for Gaskets for Use in Connection with Hub and Spigot Cast Iron Soil Pipe and Fittings for Sanitary Drain, Waste, Vent, and Storm Piping Applications¹

This standard is issued under the fixed designation C1563; 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 Several different types of compression gaskets are available for use in connection with hub and spigot cast iron soil pipe and fittings. The purpose of this test method is to establish material criteria and test procedures for compression gaskets used in joining hub and spigot cast iron soil pipe and fittings for sanitary drain, waste, vent, and storm drain piping applications in accordance with the general needs of producers, distributors, and users.

1.2 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.

1.3 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

A74 Specification for Cast Iron Soil Pipe and Fittings

C564 Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings

A644 Terminology Relating to Iron Castings

3. Terminology

3.1 *Definitions:*

3.1.1 For definitions of terms in this test method see Terminology A644.

3.1.2 *adhesive lubricant, n*—liquid emulsion chemically cured polychloroprene.

3.1.3 *manufacturer, n*—the entity that molds the compression gaskets covered by this standard.

4. Summary of Test Method

4.1 *Restrained Hydrostatic Joint Test*— In the Restrained Hydrostatic Joint Test, two test pieces are prepared such that inside diameter of the hub and the outside diameter of the spigot conform to the maximum and minimum (respectively) dimensions permitted by Specification A74. The compression gasket to be tested is used to join the test pieces as detailed in Fig. 1. This assembly is then restrained and subjected to hydrostatic pressure, and the performance of the joint assembly is evaluated.

5. Physical Properties, Material, and Marking

5.1 *Physical Properties*—The gaskets governed by this test method are of a compression type and are designed to fit the annular space between the spigot (plain) end of one pipe or fitting and the receptive hub of another, as shown in Fig. 2.

5.1.1 Each compression gasket shall consist of one or more sealing ring(s) that compress to provide an airtight and watertight seal. Compression gaskets shall have an integral flange to prevent the gasket from rolling into the hub during installation.

5.1.2 Each compression gasket shall be designed to permit expansion, contraction, and deflection of assembled piping common to sanitary drain, waste, vent, and storm piping applications.

5.2 *Material*—Compression gaskets governed by this test method shall be made of a compound containing a thermoset elastomer that complies with all of the requirements of Specification C564.

5.3 *Marking*—Compression gaskets governed by this test method shall be marked with raised letters so as to be visible after installation (see Fig. 3). Each compression gasket shall be plainly marked with pipe size and class, “ASTM C564,” “ASTM C1563,” country of origin, year of manufacture, and manufacturer’s name or registered trademark that readily

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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.