



Designation: C 564 – 97

Endorsed by the
Cast Iron Soil Pipe Institute

Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings¹

This standard is issued under the fixed designation C 564; 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 Department of Defense.

1. Scope

1.1 This specification covers preformed rubber gaskets used to seal joints in cast iron soil pipe and fittings.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 The following safety hazards caveat pertains only to the test methods section 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.*

2. Referenced Documents

2.1 ASTM Standards:

- C 717 Terminology of Building Seals and Sealants²
- D 395 Test Methods for Rubber Property—Compression Set³
- D 412 Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers—Tension³
- D 471 Test Method for Rubber Property—Effect of Liquids³
- D 573 Test Method for Rubber—Deterioration in an Air Oven³
- D 624 Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers³
- D 1149 Test Method for Rubber Deterioration—Surface Ozone Cracking in a Chamber³
- D 1415 Test Method for Rubber Property—International Hardness³
- D 2240 Test Method for Rubber Property—Durometer Hardness³

2.2 Other Documents

¹ This specification is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.75 on Gaskets and Couplings for Plumbing and Sewer Piping.

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² Annual Book of ASTM Standards, Vol 04.07.

³ Annual Book of ASTM Standards, Vol 09.01.

RMA Class 3 Dimensional Tolerances, RMA Manual⁴

3. Terminology

3.1 *Definitions*—For definitions of terms in this standard see Terminology C 717.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *flash*—the excess material protruding from the surface of a molded article at the mold junction.

3.2.2 *virgin rubber, n*—a term that may be used interchangeably with raw rubber (raw thermoset elastomer). A rubber or thermoset elastomer that has not had any additional work, diluents incorporated, processes performed on it, or any combination thereof. A rubber that is in an unmodified state or one in which no attempt has been made to alter it in any fashion as received from the manufacturer or supplier.

4. Materials and Manufacture

4.1 Gaskets shall be made of a properly vulcanized virgin compound containing virgin rubber as the sole elastomer with no scrap or reclaim.

5. Physical Requirements

5.1 Sample gaskets selected as specified in Section 8 shall conform to the requirements for physical properties listed in Table 1 when tested in accordance with the methods specified in Section 9.

6. Dimensions and Permissible Variations

6.1 Gaskets shall conform to the dimensions specified by the manufacturer.

6.2 All cross-sectional dimensions shall have an RMA Class 3 tolerance as shown in Annex A1, and all diametral dimensions shall have a tolerance of ± 1 percent.

7. Workmanship

7.1 The surface of the gasket shall be smooth and free of pitting, cracks, blisters, air marks, and any other imperfections that will affect its behavior in service. The body of the gasket shall be free of porosity and air pockets.

7.2 Neither the flash thickness nor the flash extension shall exceed 0.8 mm ($1/32$ in.), at any point on the sealing ring.

⁴ Rubber Manufacturer's Association, 1400 K Street NW, No. 900, Washington, DC 20005 – 2455.