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Standard Methods of Testing HOMOGENEOUS BITUMINIZED FIBER PIPE¹

This standard is issued under the fixed designation D 2314; 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 These methods cover the procedures for testing homogeneous bituminized fiber pipe. Homogeneous bituminized fiber pipe is defined as a pipe composed of an interwoven fibrous structure thoroughly impregnated with a bituminous compound. The wall of the pipe shall be dense and homogeneous, without seams or laminations.

1.2 The test methods appear in the following order:

	Sections
Chemical Resistance	4 to 6
Water Absorption	7 to 11
Kerosine Resistance	12 to 15
Heat Resistance	16 to 18
Boiling Water Resistance	19 to 21
Resistance to Flattening	22 to 26
Dry Crushing Strength	27 to 31
Crushing Strength of Couplings	32
Wet Crushing Strength	33 to 37
Beam Strength	38 to 43
Joint Tightness	44 to 46

1.3 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Significance

2.1 All of the following tests are quality control tests. They measure the significant characteristics that use and experience have proved to be indicative of quality in homogeneous bituminized fiber pipe. None of the individual tests are intended to measure performance directly. However, when the results of all of these tests are

considered as a whole, a relationship to performance does exist.

3. Conditioning

3.1 Except as otherwise noted, condition all specimens 24 h in air at 21 to 24°C (70 to 75°F) and test in a room where the temperature is similarly controlled.

CHEMICAL RESISTANCE

4. Significance

4.1 This test indicates the corrosion resistance of the material and the resistance of the impregnant to acids, alkalies, and salts.

5. Procedure

5.1 Immerse 150-mm (6-in.) lengths of pipe for 30 days in 0.5 mass % solutions of sodium carbonate (Na_2CO_3), sodium sulfate (Na_2SO_4), and sulfuric acid (H_2SO_4) and then remove.

6. Report

6.1 Report any visual signs of chemical reaction or deterioration of the impregnant.

WATER ABSORPTION

7. Significance

7.1 This test is to determine complete impregnation and absence of voids in the fiber structure.

8. Test Specimens

8.1 Saw sections, 150 or 305 mm (6 or 12 in.)

¹ These methods are under the jurisdiction of ASTM Committee D-8 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.16 on Bituminized Fiber Pipe.

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