Designation: ~~D5385 – 93 (Reapproved 2006)~~ D5385/D5385M – 93 (Reapproved 2014)$^{\varepsilon 1}$

Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes[1]

This standard is issued under the fixed designation ~~D5385;~~D5385/D5385M; 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.

ε[1] NOTE—Units information was editorially corrected in May 2014.

1. Scope

1.1 This test method measures the hydrostatic resistance of a waterproofing membrane under controlled laboratory conditions. This test method is not suitable for systems that rely on confinement of the seams by the backfill since backfill is not part of this test method.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as ~~the~~ standard. The values ~~given in parentheses are for information only.~~ stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the 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. Terminology

2.1 *Definitions:*

2.1.1 *post-formed crack*—for the purposes of this test method, one that forms and widens behind the waterproofing membrane after it has been applied and cured.

3. Significance and Use

3.1 This test method tests the hydrostatic resistance of a waterproofing membrane and can be used to compare the hydrostatic resistance of waterproofing membranes.

3.2 No correlation has been established between the performance in this test method and that in the field.

4. Apparatus

4.1 *Hydrostatic Testing ~~Equipment ,~~ Equipment,* including a chamber (Fig. 1), and a clamping bracket (Fig. 2), and the gasket and fasteners to form the completed assembly (Fig. 3).

4.2 *Conditioning Room,* with forced air circulation to maintain a temperature of 2 to 7°C ~~(35~~[35 to ~~45°F)~~45°F] for testing sheet systems, 18 to 24°C ~~(65~~[65 to ~~75°F)~~75°F] for liquid-applied systems, and large enough to condition, prepare, and test samples.

4.3 *Source of Compressed Air,* with pressure up to 690 kPa ~~(100 psi)~~[100 psi] and with an air pressure controller to regulate the air in 103-kPa ~~(15-psi)~~[15-psi] increments.

4.4 *Cut Off Saw,* equipped with a diamond or masonry blade, to prepare precast concrete blocks for testing substrates.

4.5 *Clock*—Either a common time piece or a 1-h interval timer.

4.6 *Silicone Vacuum Grease.*

4.7 *Precast-Concrete Patio ~~Blocks ,~~ Blocks,* 125-lb/ft^3 minimum density, 2100-psi minimum compressive strength, smooth surfaced, 191 by 394 by 51 mm ~~(7~~[7½ by 15½ by 2 ~~in.).~~in.].

[1] This test method is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.22 on Waterproofing and ~~Damproofing~~Dampproofing Systems.

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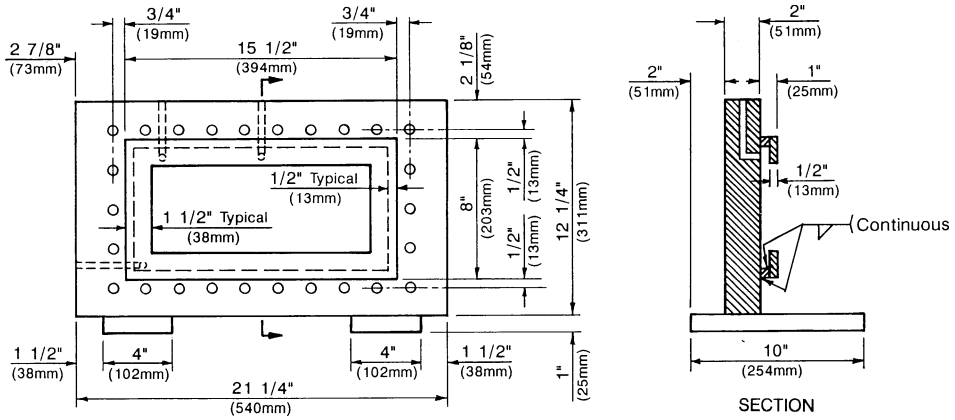

FIG. 1 Chamber

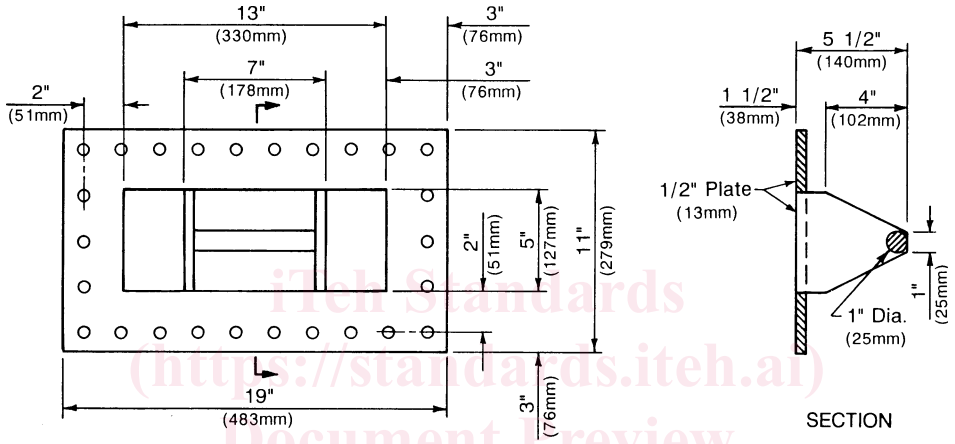

FIG. 2 Clamping Bracket

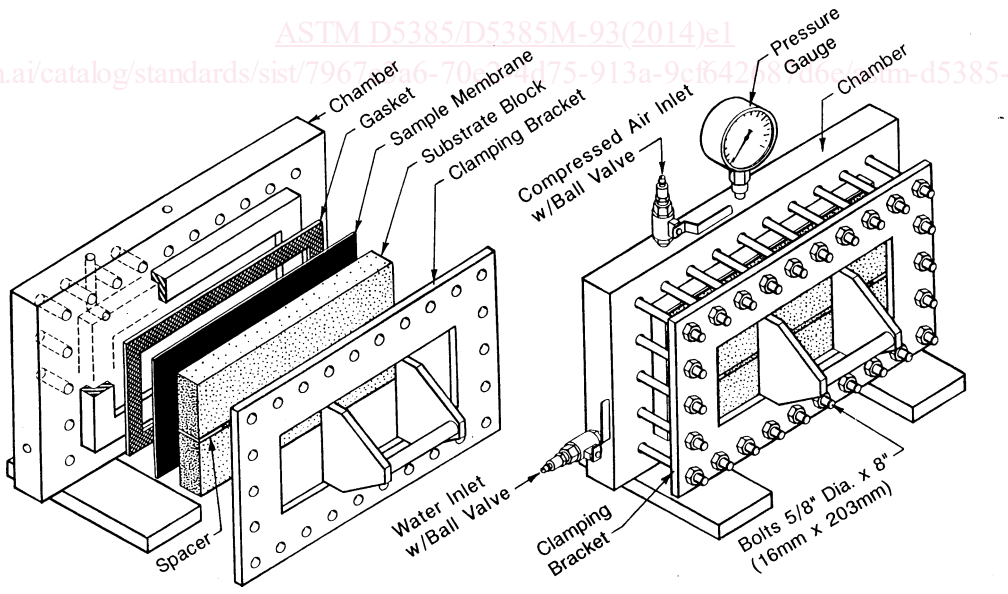

FIG. 3 Completed Assembly

5. Test Substrate Preparation

5.1 Cut an approximately 3.2-mm ([⅛ ~~in.~~)-in.] wide kerf 44 mm ([~~1~~[1¾ ~~in.~~)in.] deep lengthwise down the center of a 191 by 394 by 51-mm ([~~7~~[7½ by 15½ by ~~2-in.~~)2-in.] concrete block.