Designation: C 1306 – 00

Standard Test Method for Hydrostatic Pressure Resistance of a Liquid-Applied Waterproofing Membrane[1]

This standard is issued under the fixed designation C 1306; 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 test method describes a laboratory procedure for determining the resistance of a waterproofing membrane to hydrostatic pressure.

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

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.*

1.4 There are no ISO standards similar or equivalent to this ASTM standard.

2. Referenced Documents

2.1 *ASTM Standards:*

C 33 Specification for Concrete Aggregates[2]

C 150 Specification for Portland Cement[3]

C 717 Terminology of Building Seals and Sealants[4]

3. Terminology

3.1 *Definitions*—Refer to Terminology C 717 for definitions of technical terms used in this test method. Some of these are *elastomeric, substrate, waterproofing*, and *compound*.

4. Summary of Test Method

4.1 This test method is conducted in two stages. In the first stage, the test membrane is subjected to hydrostatic pressure that is increased steadily over an 8 h period until the specimen fails or the maximum pressure is achieved. In the second part of the test, three more specimens are subjected to hydrostatic pressure that is increased slowly from 50 % of the failure value to failure in 2.5 psi increments every two to three days.

5. Significance and Use

5.1 This test method is used as a screening tool to determine the hydrostatic pressure to which a liquid-applied waterproofing membrane may be subjected without failing when stretched over a crack in the substrate. This test method discriminates between a membrane that is very resistant to hydrostatic pressure and one that is not. Because of the variability inherent in this test method, it is not recommended that this test method be used to set a numerical standard for hydrostatic pressure resistance. No prediction of durability at lower hydrostatic pressures can be made when using the results of this test method.

6. Comparison to Other Standards

6.1 The committee with jurisdiction over this standard is not aware of any comparable standards published by other organizations.

7. Apparatus and Materials

7.1 *Test Apparatus*, made of Schedule 80 PVC pipe pieces and constructed as shown in Fig. 1.

7.2 *Masking Tape*.

7.3 *TFE-Fluorocarbon or Polyethylene Spacers*, three, 51 by 19 by 3 mm (2 by 0.75 by 0.125 in.).

7.4 *Circulating Hot-Air Oven*.

7.5 *Portland Cement*, high early strength, conforming to Specification C 150, Type III.

7.6 *Fine Aggregate*, conforming to Specification C 33.

7.7 *Source of Regulated Compressed Air*, capable of at least 45 psig.

7.8 *Molds*, eight, 102 by 50 by 13 mm (4 by 2 by 0.5 in.) inside dimensions, for casting mortar blocks.

7.9 *Epoxy Cement*, with gap filling capability, or non-sag construction mastic.

7.10 *Sealing Gaskets*, eight, 102 mm (4 in.) outside diameter by 57 mm (2.25 in.) inside diameter by 6 mm (0.25 in.) thick made of very soft rubber.[5]

7.11 *Vernier Calipers*.

[1] This test method is under the jurisdiction of ASTM Committee C-24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.80 on Building Deck Waterproofing Systems.

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[2] *Annual Book of ASTM Standards*, Vol 04.02.

[3] *Annual Book of ASTM Standards*, Vol 04.01.

[4] *Annual Book of ASTM Standards*, Vol 04.07.

[5] Adco SP 505 and Ashland Plioseal T408 rubber sealing tapes have been found suitable for this purpose.