



Designation: C1522 – 05 (Reapproved 2021)

Standard Test Method for Extensibility After Heat Aging of Cold Liquid-Applied Elastomeric Waterproofing Membranes¹

This standard is issued under the fixed designation C1522; 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 extensibility for one- or two-component cold liquid-applied elastomeric waterproofing membranes.

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

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

1.4 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

C717 Terminology of Building Seals and Sealants

C1250 Test Method for Nonvolatile Content of Cold Liquid-Applied Elastomeric Waterproofing Membranes (Withdrawn 2015)³

C1375 Guide for Substrates Used in Testing Building Seals and Sealants

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 Dampproofing Systems.

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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.

³ The last approved version of this historical standard is referenced on www.astm.org.

3. Terminology

3.1 *Definitions*—Refer to Terminology **C717** for definitions of terms used in this standard.

4. Comparison to Other Standards

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

5. Summary of Test Method

5.1 This test method consists of preparing three samples for each membrane to be tested and extending after aging 14 days at $70 \pm 2^\circ\text{C}$ ($158 \pm 3.6^\circ\text{F}$).

6. Significance and Use

6.1 This test method is used to determine a membrane's ability to bridge a crack that forms after the membrane has been applied and allowed to cure.

7. Apparatus

7.1 *Forced Draft Oven*, controlled to $70 \pm 2^\circ\text{C}$ ($158 \pm 3.6^\circ\text{F}$).

7.2 *Three Mortar Test Blocks*, dimensions $12 \times 76 \times 152$ mm ($\frac{1}{2} \times 3 \times 6$ in.) nominal with 6 mm ($\frac{1}{4}$ in.) deep notch cut across the width (see **Fig. 1**).

7.3 *Masking Tape*.

7.4 *Sand*.

7.5 *Wood Board, Steel Wedge, Hammer, and Wood Blades*.

7.6 *Testing Machine*, with tension grips capable of pulling at a rate of separation of 12.7 mm (0.5 in.)/min.

7.7 *Vernier Calipers*.

8. Conditioning/Mixing

8.1 Unless otherwise specified by those authorizing the test, standard conditions are $23 \pm 1^\circ\text{C}$ ($73.4 \pm 1.8^\circ\text{F}$) and $50 \pm 5\%$ relative humidity.

8.2 Store all membrane materials to be tested in an unopened container at standard conditions for at least 24 h before any test specimens are prepared.

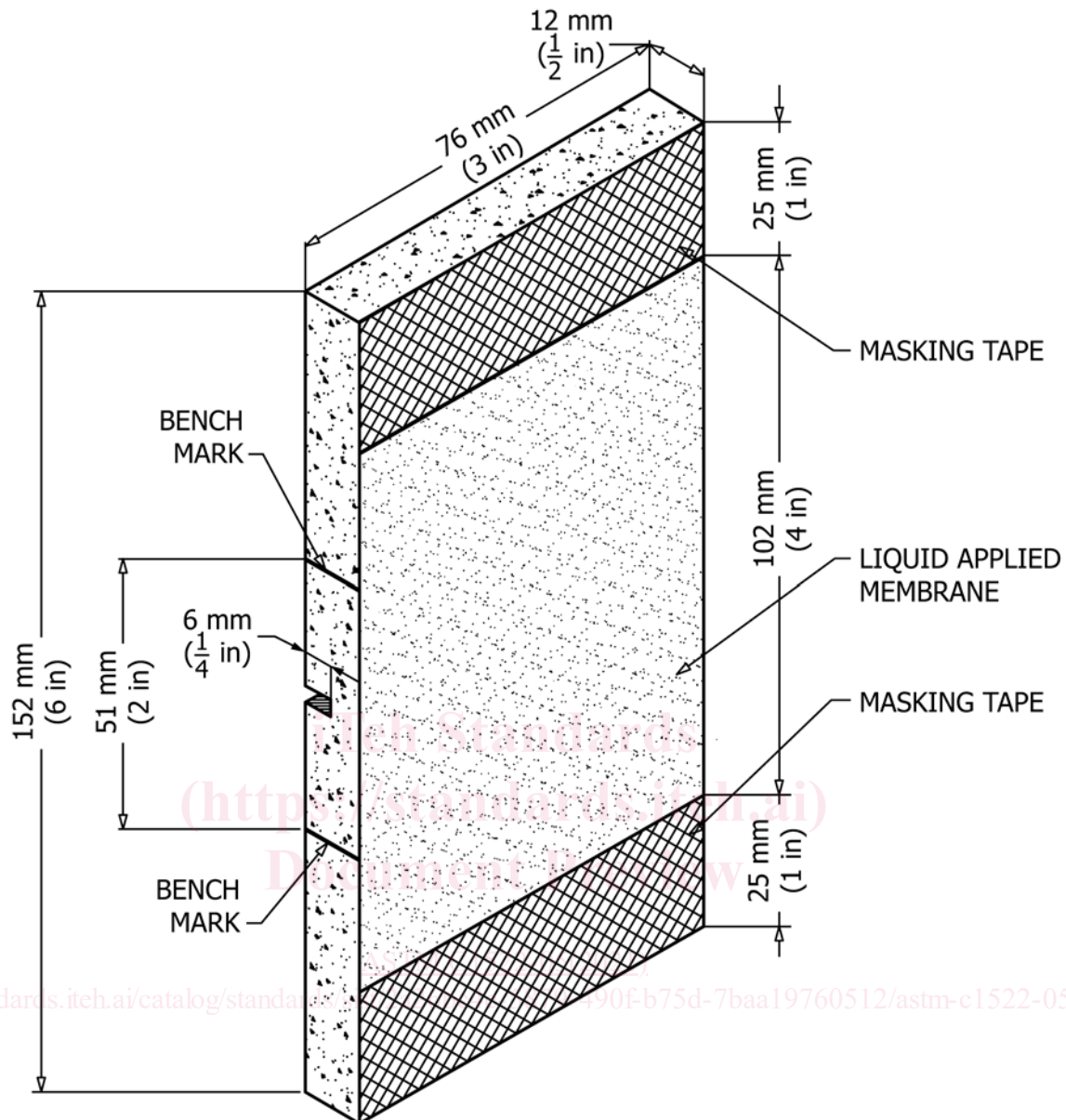


FIG. 1 Test Block for Testing Extensibility After Heat Aging

8.3 Follow the manufacturer's instructions for mixing and preparing membrane materials for testing. Thoroughly stir one-component materials before using. Mix two-component compounds in the ratio recommended by the manufacturer. If required by the manufacturer, mix each component prior to the final mix.

9. Procedure

9.1 Prepare three test specimens for each membrane to be tested as follows:

9.1.1 Cut each of the three mortar slabs crosswise in the center of the 152 mm (6 in.) length to a depth of 6 mm (1/4 in.), as shown in Fig. 1.

NOTE 1—Mortar substrates must be prepared according to Guide C1375.

9.1.2 Measure the thickness of each block to the nearest 0.025 mm (0.001 in.) on each side of the center notch, using vernier calipers. Mark the location where the measurements were taken for future use. Record these values.

9.1.3 Mark the edge of each slab along the 152 mm (6 in.) length so that the bench marks are 51 mm (2 in.) apart and approximately 25 mm (1 in.) on each side of the center cut as shown in Fig. 1.

9.1.4 Apply masking tape across the ends of the uncut 76 by 152 mm (3 by 6 in.) faces of the slabs, leaving an exposed 76 by 102 mm (3 by 4 in.) area on each where the membrane may be applied.

9.1.5 For self-leveling membrane materials, lay the slabs on a bed of sand and level them.

NOTE 2—For self-leveling membranes, apply 50 mm (1 in.) wide