Designation: C732 – 17 (Reapproved 2022)

Standard Test Method for Aging Effects of Artificial Weathering on Latex Sealants[1]

This standard is issued under the fixed designation C732; 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 U.S. Department of Defense.

1. Scope

1.1 This test method covers a laboratory procedure for the determination of aging effects of artificial weathering on latex sealants.

1.2 The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—Currently there is no ISO standard similar to this test method.

1.4 *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

C1442 Practice for Conducting Tests on Sealants Using Artificial Weathering Apparatus

3. Terminology

3.1 *Definitions:*

3.1.1 Definitions of the following terms are found in Terminology C717: adhesive failure (loss of adhesion); latex sealant; sealant, standard conditions.

4. Summary of Test Method

4.1 The sealant is placed in a specially constructed wood-and-aluminum fixture (referred to as a "channel panel") and exposed for intervals of 500 h to specified alternate wet and dry cycles in an accelerated weathering unit, then periodically examined for evidences of deterioration.

5. Significance and Use

5.1 Accelerated weathering exposure serves to indicate long-term exterior durability of the sealant. In this test method, durability is tested when the sealant is used with wood or aluminum.

6. Apparatus

6.1 *Accelerated Weathering Device*—One of the units as described in Practice C1442. Because of differences in spectral power distributions of the exposure sources and exposure parameters used in the different types of devices described in Practice C1442, test results may differ with the type of accelerated weathering device. Choice of type of device shall be by mutual agreement among the interested parties.

6.2 *Channel Panel attached to a Sample Holder,* as shown in Fig. 1.

6.3 *Knife,* for tooling.

7. Sampling

7.1 Use the sealant to be tested directly from the container as commercially supplied by the manufacturer.

8. Test Specimens

8.1 Prepare two 25 mm by 70 mm by 175 mm (1-in. by 2¾-in. by 7-in.) wood-and-aluminum channel panels as shown in Fig. 1, using the following materials:

8.1.1 *Exterior Fir Plywood,* with a water-resistant thermoset glue such as urea or melamine-formaldehyde type.

8.1.2 *Ponderosa Pine Sapwood,* white kiln dried and free of knots or imperfections.

8.1.3 *Aluminum Alloy 6063-T5 or 6061-T6,* clear, anodized a minimum of 30 min over a scale-free finish.

8.1.4 *Polyethylene Bond-Breaker* of low-density film approximately 5 mils (0.13 mm) thick.

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[1] This test method is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealantsand is the direct responsibility of Subcommittee C24.40 on Weathering.

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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.