



Designation: C1330 – 23

Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants¹

This standard is issued under the fixed designation C1330; 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 specification covers the basic requirements for cylindrical sealant backing to be used with cold liquid applied sealants for use in building seals.

1.2 Cylindrical sealant backing serves one or more of the following functions:

1.2.1 Limits the amount and depth of sealant applied into a joint,

1.2.2 Acts as a bond breaker to allow joint movement without undue stress to the sealant,

1.2.3 Provides a form to assist the sealant in developing the proper shape factor, and

1.2.4 Acts as a barrier to the flow of sealant through the joint.

1.3 The committee with jurisdiction over this standard is not aware of any comparable standards published by other ASTM committees or 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

¹ This specification is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.10 on Specifications, Guides and Practices.

Current edition approved May 1, 2023. Published June 2023. Originally approved in 1996. Last previous edition approved in 2018 as C1330 – 18. DOI: 10.1520/C1330-23.

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.

C1016 Test Method for Determination of Water Absorption of Sealant Backing (Joint Filler) Material

C1087 Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems

C1253 Test Method for Determining the Outgassing Potential of Sealant Backing

D1622 Test Method for Apparent Density of Rigid Cellular Plastics

D1623 Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics

D5249 Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland Cement Concrete and Asphalt Joints

3. Terminology

3.1 *Definitions*—The definitions for the following terms used in this standard are found in Terminology **C717**:

3.1.1 bi-cellular sealant backing, bond breaker, closed cell, joint, open cell, outgassing, seal, sealant, sealant backing, skin.

4. Classification

4.1 Cylindrical sealant backings are divided into three types.

4.1.1 *Type C*—Cylindrical flexible sealant backings composed predominantly of closed cell material as defined in Terminology **C717**.

4.1.2 *Type O*—Cylindrical flexible sealant backings composed of predominantly open cell material as defined in Terminology **C717**.

4.1.3 *Type B*—Cylindrical flexible sealant backings composed of bi-cellular material as defined in Terminology **C717**.

5. Significance and Use

5.1 This specification is designed to give some indication as to the differences in performance for various cylindrical sealant backings.

5.2 Although this specification qualifies a cylindrical sealant backing for use, it does not address the compatibility of the backing with the sealants with which it will make contact. Sealant compatibility should be confirmed by the sealant

manufacturer. Compatibility characteristics of sealants in contact with cylindrical sealant backings can be determined by Test Method **C1087**.

6. Test Methods

6.1 *Water Absorption*—Testing for water absorption shall be performed in accordance with Test Method **C1016**, Procedure B.

6.2 *Density*—Testing for density shall be performed in accordance with Test Method **D1622**.

6.3 *Outgassing*—Testing for outgassing shall be performed in accordance with Test Method **C1253**.

6.4 *Compression Deflection and Recovery*—Testing for compression deflection and recovery to be performed in accordance with Specification **D5249**.

6.5 *Tensile Strength*—Testing for tensile strength to be performed in accordance with Test Method **D1623**. In all cases use a sample length sufficient to fit the tensile testing equipment.

6.6 Use of a $\frac{5}{8}$ in. diameter sample shall be standard.

7. Sampling

7.1 Samples used for testing shall be taken directly from the package as commercially supplied by the manufacturer.

8. Physical Properties

8.1 Physical properties of the cylindrical sealant backing material shall conform to the requirements of **Table 1**.

TABLE 1 Sealant Backer Properties

NOTE 1—This table applies to cylindrical sealant backing for use with cold liquid applied sealants.

| Property | Test Method | Type C | Type B | Type O |
|------------------------------|-----------------------------|--------|-----------|--------|
| Water absorption (g/cc) | C1016 Procedure B | <0.03 | 0.03–0.10 | >0.10 |
| Density (kg/m ³) | D1622 | 24–48 | 24–48 | 24–48 |
| Outgassing (No. of bubbles) | C1253 | >1 | <1 | 0 |
| Compression recovery (%) | D5249 | >90 | >90 | >90 |
| Compression deflection (kPa) | D5249 | >20.5 | <20.5 | <20.5 |
| Tensile strength (kPa) | D1623 | >200 | >200 | >100 |

9. Workmanship, Finish, and Appearance

9.1 The product shall be clean and free of scale, foreign matter, oil, or water which could wipe off on a joint sidewall and interfere with the proper cure or adhesion of the sealant.

10. Packaging and Package Marking

10.1 Packaging shall be marked with the following information:

- 10.1.1 Name, brand, or trademark of the manufacturer,
- 10.1.2 Quantity and size,
- 10.1.3 ASTM designation (Type C, O, or B), and
- 10.1.4 Any other information that the manufacturer requires.

11. Keywords

11.1 backer rod; cylindrical sealant backing; joint backing; sealant backing

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