



# Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid- Applied Sealants<sup>1</sup>

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 ( $\epsilon$ ) 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 specification may involve hazardous materials, operations, and equipment. 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. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

**C717** Terminology of Building Seals and Sealants

**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

<sup>1</sup> 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, 2013. Published May 2013. Originally approved in 1996. Last previous edition approved in 2007 as C1330–02(2007). DOI: 10.1520/C1330-02R13.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

**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 predominately 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 made in accordance with Test Method **C1016**, Procedure B.

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

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

6.4 *Compression Deflection and Recovery*—Testing to be made in accordance with Specification **D5249**.

6.5 *Tensile Strength*—Testing for tensile strength to be made 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 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**.

## 9. Workmanship, Finish, and Appearance

9.1 The product shall be clean, 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.

**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)	<b>C1016</b> Procedure B	<0.03	0.03–0.10	>0.10
Density (kg/m <sup>3</sup> )	<b>D1622</b>	24–48	24–48	24–48
Outgassing (No. of bubbles)	<b>C1253</b>	>1	<1	0
Compression recovery (%)	<b>D5249</b>	>90	>90	>90
Compression deflection (kPa)	<b>D5249</b>	>20.5	>20.5	<20.5
Tensile strength (kPa)	<b>D1623</b>	>200	>200	>100

## 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

*ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.*

*This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.*

*This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the ASTM website (www.astm.org/COPYRIGHT/).*