



Designation: C1281 – 16 (Reapproved 2023)

Standard Specification for Preformed Tape Sealants for Glazing Applications¹

This standard is issued under the fixed designation C1281; 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 describes preformed tape sealants for use in glazing applications. These materials are generally used to serve as components of glazing systems. They are intended to serve as a water and air barrier.

1.2 This specification is not intended for preformed foam tape sealants.

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

1.4 The subcommittee with jurisdiction is not aware of any similar ISO standard.

1.5 The following precautionary statement pertains only to the test method section of this specification. *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.*

1.6 *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](#)

[C765 Test Method for Low-Temperature Flexibility of Preformed Tape Sealants](#)

[C771 Test Method for Weight Loss After Heat Aging of Preformed Tape 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 Jan. 1, 2023. Published January 2023. Originally approved in 1994. Last previous edition approved in 2016 as C1281 – 16. DOI: 10.1520/C1281-16R23.

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.

[C772 Test Method for Oil Migration or Plasticizer Bleed-Out of Preformed Tape Sealants](#)

[C879 Test Methods for Release Papers Used with Preformed Tape Sealants](#)

[C908 Test Method for Yield Strength of Preformed Tape Sealants](#)

[C972 Test Method for Compression-Recovery of Tape Sealant](#)

[C1016 Test Method for Determination of Water Absorption of Sealant Backing \(Joint Filler\) Material](#)

[C1266 Test Method for Flow Characteristics of Preformed Tape Sealants](#)

3. Terminology

3.1 *Definitions*—The definitions of the following terms used in this specification are found in Terminology [C717](#): compression seal, glazing, standard conditions, tape sealant.

4. Materials and Manufacturers

4.1 The preformed tape sealant shall be composed of appropriate raw materials to result in conformance to this specification.

4.2 The preformed tape sealant shall be of uniform dimensions and consistency.

4.3 When properly applied, this material shall form a seal to prevent air and water from entering the system.

5. Requirements

5.1 The shelf-life of this sealant shall be determined by its manufacturer. When establishing the shelf-life, the manufacturer should also identify acceptable conditions of storage for the sealant.

5.2 *Physical Properties*—The physical properties of the material shall conform to the requirements specified in [Table 1](#).

6. Significance and Use

6.1 This specification describes only preformed tape sealants for glazing applications. Their use is specific under glazing systems to serve as a water and air barrier. The test methods chosen are to determine their efficiency in this use. This specification does not describe all required properties of the preformed tape sealants. It should be recognized by the purchaser and design professional that not all preformed tape

TABLE 1 Material Requirements

Properties	ASTM Test Method	Requirements
Low Temp Flex	C765	No Cracks at – 23°C (–10°F) No Adhesion Loss
Weight Loss	C771	2 % Maximum
Vehicle Migration	C772	1 paper stained maximum and this stain can be no more than 3.2 mm (0.125 in.) from edge of sample maximum
Backing Removal	C879 , Alternative A C879 , Alternative B	No transfer of tape compound to the paper. No transfer of tape compound to the paper
Yield Strength	C908	41.4 kPa (6 psi) minimum
Compression/ Recovery	C972	122 N/cm ³ (450 lbf/in. ³) max. Compression Index
Water Absorption	C1016	0.04 g/cm ³ Weight Gain maximum after blotting
Flow Test	C1266	60 % max Loss of Height

sealants meeting this specification are suitable for all applications. In some instances, additional requirements will be agreed to by the supplier and user.

7. Sampling

7.1 The preformed tape sealant to be tested for conformance with the requirements of this specification shall be taken directly from a randomly selected commercial container as supplied by the manufacturer.

8. Test Methods

8.1 All test methods described in the following paragraphs, unless otherwise indicated, shall be performed in a laboratory controlled at standard conditions. This preformed tape sealant sample shall be conditioned at standard conditions for at least 24 h before laboratory tests are performed.

8.2 *Low Temperature Flexibility*—Test Method **C765**.

8.3 *Weight Loss*—Test Method **C771**.

8.4 *Vehicle Migration*—Test Method **C772**.

8.5 *Backing Removal*—Test Method **C879**.

8.6 *Yield Strength*—Test Method **C908**.

8.7 *Compression/Recovery*—Test Method **C972**.

8.8 *Water Absorption*—Test Method **C1016**, Procedure A, with Section 10.1.5 modified as follows: after immersion for 24 h, remove the specimen by picking it up 75 mm (3 in.) from the ends and blotting gently with an absorbent paper towel, taking care not to squeeze or press the specimen while blotting. Within 1 min., place the specimen on the weighing platform and record the mass of the specimen to the nearest 0.1 g (0.004 oz.).

8.9 *Flow Test*—Test Method **C1266**.

9. Packaging and Package Marking

9.1 Unless otherwise specified in the contract or order, the material shall be packaged in standard commercial containers constructed to ensure acceptance by common or other carrier for safe transportation to the point of delivery.

9.2 Shipping containers shall be marked with the name, grade, and quantity of the material contained therein, as defined by the contract or order under which the shipments are made. The name of the manufacturer, the lot and batch number of the contract or order, and the date of manufacture shall also be shown.

10. Keywords

10.1 glazing; glazing tapes; preformed tape sealant; tape specification

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 Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; http://www.copyright.com/