Designation: C 1281 – 03 (Reapproved 2009)

Standard Specification for Preformed Tape Sealants for Glazing Applications[1]

This standard is issued under the fixed designation C 1281; 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C 717 Terminology of Building Seals and Sealants

C 765 Test Method for Low-Temperature Flexibility of Preformed Tape Sealants

C 771 Test Method for Weight Loss After Heat Aging of Preformed Tape Sealants

C 772 Test Method for Oil Migration or Plasticizer Bleed-Out of Preformed Tape Sealants

C 879 Test Methods for Release Papers Used with Preformed Tape Sealants

C 908 Test Method for Yield Strength of Preformed Tape Sealants

C 972 Test Method for Compression-Recovery of Tape Sealant

C 1016 Test Method for Determination of Water Absorption of Sealant Backing (Joint Filler) Material

C 1266 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 C 717: compression seal, glazing, 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 tape sealant in the original unopened container shall meet the requirements of this specification and remain suitable for use for a minimum of 12 months from the date of manufacture when stored at a temperature of 26.6°C (80°F) maximum.

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.

[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.

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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.

TABLE 1 Material Requirements

Properties	ASTM Test Method	Requirements
Low Temp Flex	C 765	No Cracks at – 23°C (–10°F) No Adhesion Loss
Weight Loss	C 771	2 % Maximum
Vehicle Migration	C 772	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	C 879, Alternative A	No transfer of tape compound to the paper.
	C 879, Alternative B	No transfer of tape compound to the paper
Yield Strength	C 908	41.4 kPa (6 psi) minimum
Compression/ Recovery	C 972	122 N/cm^3(450 lbf/in.^{3}) max. Compression Index
Water Absorption	C 1016	0.04 g/cm^3 Weight Gain maximum after blotting
Flow Test	C 1266	60 % max Loss of Height

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 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 23 ± 2°C (73.4 ± 3.6°F). This preformed tape sealant sample shall be conditioned at this temperature for at least 24 h before laboratory tests are preformed.

8.2 *Low Temperature Flexibility*—Test Method C 765.

8.3 *Weight Loss*—Test Method C 771.

8.4 *Vehicle Migration*—Test Method C 772.

8.5 *Backing Removal*—Test Method C 879.

8.6 *Yield Strength*—Test Method C 908.

8.7 *Compression/Recovery*—Test Method C 972.

8.8 *Water Absorption*—Test Method C 1016, 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 C 1266.

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