



Standard Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems¹

This standard is issued under the fixed designation C 1087; 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 test method covers a laboratory screening procedure for determining the compatibility of liquid-applied structural sealant glazing sealants when in contact with accessories such as dry glazing gaskets, spacers, shims, and setting blocks after exposure to heat and ultraviolet light.

1.2 This test method includes the observation of three parameters as follows:

- 1.2.1 Changes in the color of the sealant,
- 1.2.2 Changes in the adhesion of the sealant to glass, and
- 1.2.3 Changes in the adhesion of the sealant to the accessory being tested.

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

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 and health practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—At this time, no comparable ISO standard exists.

2. Referenced Documents

2.1 ASTM Standards:

C 717 Terminology of Building Seals and Sealants²

3. Terminology

3.1 **Definitions**—Definitions of the following terms used in this test method are listed in Terminology C 717: adhesive failure (adhesion loss), bead, bond breaker, cohesive failure, compatibility, gasket, glazing, sealant, setting blocks, shim, spacer, structural sealant, and structural sealant glazing.

4. Summary of Test Method

4.1 The test specimens are placed beneath ultraviolet lamps so that the radiation will hit the sealant directly on one specimen, and through the glass, on the other specimen (see Fig. 1).

4.2 The control specimens for this test method are prepared and tested identically to the test specimens except that the accessory is eliminated.

4.3 After the specimens are exposed, the test specimens are compared to the control specimens.

4.4 In the testing of the specimens, any color change in the sealant between the test specimen and the control is noted as are any changes in the adhesion of the sealant to either the glass or to the accessory. This test method requires the preparation of eight test specimens (four controls and four test specimens for each accessory being evaluated).

5. Significance and Use

5.1 In structural sealant glazing systems, the sealant functions as the structural adhesive and may also function as the primary weather seal. As the structural adhesive, the integrity of the adhesive bond is critical.

5.2 Changes in color and adhesion after exposure are two of the criteria that can be used to determine the compatibility of the system. Experience has shown that accessories that cause loss of adhesion or discoloration in this test method may also cause these occurrences in actual use.

6. Apparatus and Materials

6.1 **Glass Panels**, clear float glass, approximately 76.2 by 50.8 by 6.4 mm (3 by 2 by ¼ in.). Eight panels are required for each material being tested.

6.2 **Bond Breaker Tape**, 25.4 by 76.2-mm (1 by 3-in.) piece for each panel. The bond breaker tape must be compatible with the sealants being tested.

6.3 **Thermometer**, for example, 28.9 to 100°C (20 to 212°F).

¹ This test method is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.20 on General Test Methods.

Current edition approved Jan. 10, 2000. Published April 2000. Originally published as C 1087 – 87. Last previous edition C 1087 – 95.

² *Annual Book of ASTM Standards*, Vol 04.07.