



Designation: C 1184 – 00a

Standard Specification for Structural Silicone Sealants¹

This standard is issued under the fixed designation C 1184; 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 the properties of cold liquid applied, single-component or multicomponent, chemically curing elastomeric structural silicone sealants herein referred to as the sealant. These sealants are intended to structurally adhere components of structural sealant glazing systems.

1.2 Only those properties for which there are industry-agreed-upon minimum acceptable requirements, as determined by available ASTM test methods, are described in this specification. Additional properties are presently being defined and will be added as ASTM test methods for those properties become available.

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

1.4 Committee C-24, with jurisdiction over this specification, is aware of only one comparable standard, ETAG No. 002.

2. Referenced Documents

2.1 ASTM Standards:

- C 603 Test Method for Extrusion Rate and Application Life of Elastomeric Sealants²
- C 639 Test Method for Rheological (Flow) Properties of Elastomeric Sealants²
- C 661 Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer²
- C 679 Test Method for Tack-Free Time of Elastomeric Sealants²
- C 717 Terminology of Building Seals and Sealants²
- C 792 Test Method for Effects of Heat Aging on Weight Loss, Cracking, and Chalking of Elastomeric Sealants²
- C 794 Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants²
- C 1087 Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems²
- C 1135 Test Method for Determining Tensile Adhesion Properties of Structural Sealants²

¹ This specification is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.35 on Structural Sealants.

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

C 1193 Guide for Use of Joint Sealants²

C 1401 Guide for Structural Sealant Glazing²

G 53 Practice for Operating Light- and Water-Exposure Appartus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials³

G 151 Practice for Exposing Nonmetallic Materials in Accelerated Test Devices That Use Laboratory Light Sources³

G 154 Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials³

G 155 Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials³

2.2 *European Organization for Technical Approvals Document:*

ETAG No. 002 Guideline for European Technical Approval for Structural Sealant Glazing Systems

3. Terminology

3.1 *Definitions*—Refer to Terminology C 717 for definitions of the following terms used in this specification: adhesive failure, chemically curing sealant, cohesive failure, compatibility, cure, elastomeric, glazing, hardness, non-sag sealant, primer, sealant, shelf life, silicone sealant, structural sealant, substrate, and tooling.

4. Significance and Use

4.1 Not all sealants meeting this specification should be presumed to be suitable for all applications and all substrates. This specification assists in selecting sealants that meet certain minimum standards of performance.

4.2 Although this specification qualifies a sealant for use, it does not address the adhesion capability of the sealant for a specific substrate nor the compatibility of the sealant with the materials it contacts. Adhesion and compatibility characteristics required for specific substrates or finishes can be determined by Test Method C 794 for adhesion and Test Method C 1087 for compatibility.

4.3 To properly specify a sealant for the intended use when using this specification, it is essential that the applicable type and use be included.

5. Classification of Sealants

5.1 A sealant qualifying under this specification shall be classified as to type and use as given in 4.1.1-4.1.4.

³ *Annual Book of ASTM Standards*, Vol 14.04.