



Standard Guide for Structural Sealant Glazing¹

This standard is issued under the fixed designation C 1401; 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 Structural sealant glazing, hereinafter referred to as SSG, is an application where a sealant not only can function as a barrier against the passage of air and water through a building envelope, but also primarily provides structural support and attachment of glazing or other components to a window, curtain wall, or other framing system.

1.2 This guide provides information useful to design professionals, manufacturers, contractors, and others for the design and installation of a SSG system. This information is applicable only to this glazing method when used for a building wall that is not more than 15° from vertical; however, limited information is included concerning a sloped SSG application.

1.3 Only a silicone chemically curing sealant specifically formulated, tested, and marketed for structural sealant glazing is acceptable for a SSG system application.

1.4 The committee with jurisdiction for this standard is not aware of any comparable standard published by other organizations.

1.5 The calculations and values stated in SI units are to be regarded as the standard. Values in parenthesis and inch-pound units are for information only. SI units in this guide are in conformance with IEEE/ASTM SI 10.

1.6 *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:

- B 117 Practice for Operating Salt Spray (Fog) Apparatus
- C 99 Test Method for Modulus of Rupture of Dimension Stone²
- C 119 Terminology Relating to Dimension Stone²

- C 162 Terminology of Glass and Glass Products³
- C 503 Specification for Marble Dimension Stone (Exterior)²
- C 509 Specification for Elastomeric Cellular Preformed Gasket and Sealing Material²
- C 510 Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants²
- C 568 Specification for Limestone Dimension Stone²
- C 615 Specification for Granite Dimension Stone²
- C 717 Terminology of Building Seals and Sealants²
- C 719 Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement (Hockman Cycle)²
- C 794 Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants²
- C 864 Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks and Spacers²
- C 880 Test Method for Flexural Strength of Dimensional Stone²
- C 920 Specification for Elastomeric Joint Sealants²
- C 1036 Specification for Flat Glass³
- C 1048 Specification for Heat-Treated Flat Glass—Kind HS, Kind FT Coated and Uncoated Glass³
- C 1087 Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems²
- C 1115 Specification for Dense Elastomeric Silicone Rubber Gaskets and Accessories²
- C 1135 Test Method for Determining Tensile-Adhesion Properties of Structural Sealants²
- C 1172 Specification for Laminated Architectural Flat Glass³
- C 1184 Specification for Structural Silicone Sealants²
- C 1193 Guide for Use of Joint Sealants²
- C 1201 Test Method for Structural Performance of Exterior Dimension Stone Cladding Systems by Uniform Static Air Pressure Difference²
- C 1248 Test Method for Staining of Porous Substrates by Joint Sealants²
- C 1249 Guide for Secondary Seal for Sealed Insulating

¹ This guide is under the jurisdiction of ASTM Committee C24 on Sealants and is the direct responsibility of Subcommittee C24.10 on Specifications, Guides and Practices.

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² Annual Book of ASTM Standards, Vol 04.07.

³ Annual Book of ASTM Standards, Vol 15.02.